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STATE OF NEW YORK	
DEPT. OF PUBLIC SERVICE	
DATE	<u>8-14-02</u>
CASE NO.	<u>30</u>
EX	<u> </u>

ERIC J.W. WOOD

Principal

Acentech

EDUCATION

B.S. (Mechanical Engineering), University of Hartford, 1967; additional study at Rensselaer Polytechnic Institute and Northeastern University

PROFESSIONAL POSITIONS

Acentech Incorporated 1989 to present
Bolt Beranek and Newman Inc., 1972-1989, Supervisory Consultant
Pratt & Whitney Aircraft 1967-1972, Senior Acoustical Engineer

PROFESSIONAL SOCIETIES

Institute of Noise Control Engineering
Acoustical Society of America
TRB Subcommittee on Rail Transportation Noise and Vibration

PROFESSIONAL RESPONSIBILITIES

Mr. Wood directs and provides technical contributions to engineering and environmental projects related primarily to the measurement, evaluation, and control of noise and vibration during the design, construction, and operation of major energy systems, transportation facilities, and industrial plants. During thirty years of consulting practice he has contributed to hundreds of projects requiring ambient measurement surveys, environmental reports, project licensing, construction and demolition noise studies, interior and exterior noise and vibration surveys, and noise control designs.

CONSULTING EXPERIENCE

Mr. Wood's professional experience on a variety of his consulting projects is described below.

Power Generation: Extensive engineering acoustics experience at electric-power generation projects ranging in size from less than 1 MWe to more than 1000 MWe, including combined-cycle and conventional coal, gas, oil, wood, and nuclear fueled steam-electric stations; offshore floating plants; as well as resource recovery, combustion-turbine, reciprocating-engine, wind-turbine, and hydroelectric plants. Clients have included electric utilities, architect-engineers, commercial developers, environmental consulting firms, equipment vendors, and community groups.

Transmission and Distribution: Design, specification, and evaluation of noise control treatments for a wide range of electric utility transformers during initial station design as well as after operation to ensure good neighbor relations and compliance with local requirements. Additional experience in the evaluation of noise from high-voltage transmission lines and DC to AC converter terminals.

Gas and Oil Transmission Facilities: Review and preparation of the acoustic portions of license applications for proposed gas pipeline compressor stations, evaluation and documentation regarding statewide proposed regulatory requirements for new gas compressor stations, gate station and compressor station noise evaluation and abatement suggestions prior to construction, retrofit noise control planning and design for operating reciprocating and turbine compressor stations, discussions with a local regulatory agency regarding new zoning requirements adjacent to an oil unloading and pipeline terminal, and extensive noise control retrofit designs for operating compressor stations.

Sport Activities: Measurement and evaluation of noise from sport facilities including automobile race tracks, shooting ranges, and skimobile trails located near residential areas. Also, technical advisor to the 1975 first place winner of the Scout Pack No. 155 Pinewood Derby.

Rail Transportation: Acoustic measurements, evaluation, and noise abatement concepts associated with urban and suburban rail systems. Field measurements to document and evaluate the effects of track fixation on train passage noise and vibration at adjacent community areas. Documentation, evaluation, and control of the noise produced during coal delivery by rail and during coal unloading by various methods including trestle unloading, rotary car dumpers, and coal car shakers. Specification and design review of noise control enclosures for locomotive load test cells.

Paper Mills: Preparation of the noise related sections of environmental impact reports and assistance during the licensing and evaluation of proposed new paper mills, woodyards, and landfill expansions.

Expert Testimony and Regulatory Acoustics: Consulting in the area of regulatory acoustics to assist clients participation and influence the process of preparing new or revised regulations as well as working with clients to interpret and comply with existing regulatory requirements. Has also worked together with client attorneys to prepare and provide expert testimony and opinions, on behalf of his clients, during public meetings as well as during regulatory and judicial proceedings in the states of Maine, Massachusetts, Delaware, Virginia, Florida, and Minnesota.

Product Noise Reduction: Measurement, evaluation, and development of noise control designs for commercial and industrial products including a high-speed air-turbine driven drill, a voting machine, computer equipment, office printers, and screw making machinery.

Site Evaluation: Feasibility, cost analysis, and selection studies involving acoustic evaluation of federal, state, and local licensing requirements at numerous candidate sites for proposed industrial developments ranging in value from several million to several billion dollars.

Draft Fans: Evaluation and control of noise produced by large centrifugal and axial flow draft fans at more than 20 FD and ID utility and industrial fan installations in the power range of 100 HP to 9000 HP. This has involved investigations of the aeroacoustic interactions of fan, duct, and stack designs as well as the specification and field evaluation of specific noise abatement treatments including fan modifications and high performance mufflers.

Heavy Duty Mufflers: Aerodynamic and acoustic design, specification, and field evaluation of heavy-duty, high-performance, tuned-dissipative, non-clogging mufflers exposed to the relatively harsh flue-gas environment downstream of large utility and industrial boilers.

Construction Noise: Construction projects at more than twenty major industrial, highway, and commercial development sites involving the evaluation of construction noise impacts, preparation of construction noise specifications, construction noise monitoring, and construction noise abatement. Preparation of a comprehensive guide for the prediction of noise from power plant construction sites.

Hearing Conservation: Evaluation of employee noise exposures and the design of effective engineering noise control treatments in support of in-plant hearing conservation programs at numerous electric power plants and several industrial manufacturing facilities. This noise control work has included engineering designs, design alternatives, cost estimates, technical specifications, and evaluation of installed field performance.

Acoustic Impact Reports: Participation in the preparation of acoustic impact reports for at least twenty-five small and major sites proposed for new generation and distribution facilities. This has typically included measurements of the pre-construction ambient acoustic environment, projection of construction and operating noise levels, development of noise abatement alternatives, and evaluation of noise impacts for use in support of licensing applications.

Thermal-Acoustic Insulation: Designed, developed, and field evaluated, in conjunction with the Tennessee Valley Authority, highly effective thermal-acoustic blanket insulation to control noise radiated from certain classes of large industrial and marine equipment, such as pumps, turbines, and valves. This insulation has proven to be easy to install and durable. It is also easy to remove and reinstall during equipment maintenance. Thermal-acoustic blanket insulation is now readily available from many commercial suppliers.

Guidebook Preparation: Coauthored with other staff members, several comprehensive guidebooks for the electric power industry on the subjects of power plant construction noise, power plant operating noise, and draft fan noise. Also organized with the Edison Electric Institute, the 1986, 1988, 1990, and 1992 International Electric Power Industry Noise Abatement Engineering Workshops.

Aircraft Noise: Extensive experimental testing of flight-worthy noise control features of the initial P&WA JT9D high bypass turbofan engine. This engine development and evaluation work included model-scale testing at the UARL acoustic wind tunnel, full-scale outdoor static testing at P&WA and TBC, as well as initial flight testing on B-57, B-747, and DC-10 aircraft directed at compliance with FAA Part 36 certification requirements for commercial transport aircraft.

DESIGN MANUALS AND REFERENCES

Standard Handbook of Plant Engineering, Chapter 12-1, Noise Control, McGraw Hill, Inc., Second Edition 1994.

Noise and Vibration Control Engineering, Chapter 18, Prediction of Machinery Noise, John Wiley & Sons, Inc., New York, 1992.

Proceedings of the International Electric Power Industry Noise Abatement Engineering Workshop, Edited by Eric Wood, Cambridge, MA 1986.

Induced Draft Fan Noise Control: Volume 1 Technical Report and Volume 2 Design Guide, for the Empire State Electric Energy Research Corporation, New York, 1984 (with I.L. Ver).

Electric Power Plant Environmental Noise Guide: Volumes 1 and 2, Copyright by the Edison Electric Institute, Washington, D.C., Published 1978, Updated 1983, (with L.N. Miller, R.N. Hoover, and A.R. Thompson).

Power Plant Construction Noise Guide, for the Empire State Electric Energy Research Corporation, New York, 1977, (with L.N. Miller and J.D. Barnes).

LIST OF SPONSORED TECHNICAL REPORTS

"Carioba Power Project Fibra Site - Americana, SP, Brazil - Construction, Operation and Maintenance Noise Impact Assessment", InterGen Power Development Company - InterGen do Brasil Ltda., Rio de Janeiro, AI Report No. 289, (January 2001).

"La Rosita Power Project - Mexicali, Mexico - Construction, Operation and Maintenance Noise Impact Assessment", InterGen Power Development Company - Energía Azteca X, S. de R.L. de C.V., Mexicali, AI Report No. 287, (January 2001).

"CPV Gulf Coast Power Project - Construction, Operation and Maintenance Noise Impact Assessment", Manatee, Florida, The Louis Berger Group, Inc., AI Report No. 286, (December 2000).

"Proposed New Saw Mill - Construction, Operation, and Maintenance Noise Impact Assessment", Russell, Massachusetts, Hull Forest Products, AI Report No. 264, (June 2000).

"Adapazari and Gebze Power Projects - Adapazari, Turkey - Construction, Operation and Maintenance Noise Impact Assessment", Power Development Company, ADAPAZARI ELEKTRIK URETİM LTD STI, Istanbul, AI Report No. 234, (June 1999).

"Villas at the Woodlands - Sound Report", Pierce Atwood, AI Report No. 238, (June 1999)

"Izmir Power Project - Aliaga, Turkey - Construction, Operation and Maintenance Noise Impact Assessment", Power Development Company, IZMIR ELEKTRIK URETİM LTD STI, Istanbul, AI Report No. 241, (September 1999).

"Whip City Speedway Acoustical Measurements and Evaluation", Whip City Noise Committee, AI Report No. 209, (July 1998).

"Noise Measurement and Control Alternatives", Puerto Rico Ink Jet Business Unit, Hewlett Packard, AI Report Nos. 212 and 218, December 1998).

"Sawyer Environmental Recovery Facility Construction, Operation, Maintenance and Closure Noise Impact Assessment", Sevee & Maher Engineers, Inc., AI Report No. 177, (January 1997).

"Measurement and Analysis of Off-Site Noise," Bickers, Flat Top, Gala, Huff Creek, Strasburg, Emporia, Louisa, Marietta, and Petersburg Compressor Stations. Columbia Gas Transmission Corporation, with James D. Barnes, AI Report Nos. 0160 - 0168, (April 1996).

"MPI Proposed Paper Mill Expansion", Madison, Maine, Pierce Atwood, AI Technical Memo No. 044, (October 1995).

"Wood Handling and Storage Facility", Environmental Noise Assessment", Bucks Port, Maine, Champion International Corporation, AI Technical Memo No. 39, (July 1995).

"Reciprocating Engine Exhaust Noise Evaluation," Shadyside Hospital Central Utility Plant, AI Technical Memo No. 043, (September 1995).

"Fabrication Plant Expansion Noise Impact Assessment," National Semiconductor Corporation, AI Technical Report No. 041, (September 1995).

"Engine Generator Noise Analysis Monhegan Island," Monhegan Associates, Inc., Generator Noise. AI Technical Report No. 040, (September 1995).

"Boiler No. 4 ID Fan Discharge", Coors Brewing Company, AI Report No. 141, (March 1995).

"Lower Merion School District," Shapiro Petrauskas Gelber, AI Report No. 135, (February 1995).

"Exhaust Fan Noise Abatement - IBM Building 650". International Business Machine. AI Report No. 117 (April 1994).

"Northeast Corridor Train Operations Between Dedham Manor and Jamaica Plain - Noise Impact Evaluation and Abatement Recommendations," with David Coate. National Railroad Passenger Corporation, AMTRAK, AI Report No. 95 (August 1993).

"MWRA Sludge-Pelletization Facility - Community Sound Measurements and Evaluation," Pelletization Facility. Tighe & Bond, AI Report No. 100, (June 1993).

"Sprague Electric Manufacturing Facility," Squaw Bay Corporation, Noise Impact Assessment. AI Technical Report No. 032, (April 1993).

"Pipeline Pump Station Acoustics," Portland Pipe. AI Report No. 96, (March 1993).

"Audible Noise Monitoring Results for the New England/Hydro-Quebec Phase II Transmission Facilities". New England Hydro-Transmission Electric Company, Inc., AI Report No. 84 (January 1993).

"Lost River Compressor Station Units 1 Thru 9. Analysis and Abatement of Off-Site Noise," AI Report No. 0073 (February 1992).

"Stack Radiated Noise Evaluation and Control. Hydro-Quebec Tracy Power Station," with James D. Barnes, AI Tech Memo 0031 (February 1992).

"Loudoun Compressor Station Units 1 Thru 8." Tech Memo No. 0022 (September 1991).

"MBTA Blue Line Modernization Project, Comparison of Measured Noise Levels to Criteria. East Boston/Revere, Massachusetts," with David E. Coate, AI Report No. 0068 (September 1991).

"MBTA Blue Line Modernization Project, Baseline Community Noise Measurements. East Boston/Revere, Massachusetts," with David E. Coate, Frank Iacovino, and Philip Praino, AI Report No. 0067 (September 1991).

"Noise Assessment of Proposed Corporate Office Center. Huntington, Long Island," with David E. Coate, AI Tech Memo No. 0028 (July 1991).

"Proposed James River West Old Town Landfill. Noise Impact Assessment," with S.B. Munier, AI Tech Memo No. 0026 (July 1991).

"Yorktown Unit 3 ID Fan Mufflers. Evaluation after Fifteen Years of Service," with Robert S. Berens, AI Tech Memo No. 0027 (June 1991).

"Georgetown Cogeneration Facility. Noise Impact Assessment," AI Tech Memo No. 0018 (August 1990).

"Expected Vibrations in South Station Addition." AI Tech Memo No. 0008 (April 1990).

"EPEC National Street IPP Site. Initial Noise Impact Assessment," AI Tech Memo No. 0017 (March 1990).

"Madawaska Paper Mill Modernization. Construction and Operating Noise Assessment," AI Tech Memo No. 0015 (February 1990).

"MIT Cogeneration Facility. Noise Impact Analysis," with S.B. Munier, AI Tech Memo. No. 0011 (February 1990).

"Technical Load Generator Plant. Defense Communications - Electronic Evaluation and Testing Activity Concept Study, Baseline Noise Criteria Report" with S.B. Munier, AI Tech Memo No. 0013 (January 1990).

"Proposed Expansion of Paper Mill Landfill: Noise Impact Assessment," AI Tech. Memo No. 0001 (December 1989).

"Eastern Massachusetts Recycling Facility: Noise Impact Assessment," with Frank N. Iacovino, AI Tech. Memo No. 0012 (December 1989).

"Acoustic Evaluation of EUA Bridgewater Substation Site for 240/320/400 MVA Transformer Addition," AI Tech. Memo No. 0010 (December 1989).

"Bridgehampton Road Race Circuit Noise," with David E. Coate, AI Tech. Memo No. 0009 (December 1989).

"Proposed Groundwood Pulp and Lightweight Coated Paper Facility: Construction and Operating Noise Assessment," AI Tech. Memo No. 0007 (September 1989).

"Proposed Rotary Kiln Incinerator: Noise Impact Assessment," AI Report No. 0029 (July 1989).

"Acoustic Evaluation of EUA Hanson Substation Site for 25/33/42 MVA Transformers," AI Tech. Memo No. 0006 (July 1989).

"Acoustic Evaluation of EUA Burrage Substation Site for 25/33/42 MVA Transformers," AI Tech. Memo No. 0005 (July 1989).

"Baseline Preconstruction Noise Data Report: HVDC Transmission ROW in Southern New Hampshire," with Frank N. Iacovino and Philip Praino, Report No. 6988 (January 1989).

"CMP HVDC Transmission Tie to Hydro-Quebec - Assessment of Environmental Noise," Report No. 6933 (December 1988).

"Landfill Noise Evaluation for the Androscoggin Mill," Tech. Memo No. 1019 (December 1988).

"Noise Control at Future Plants - A Summary of Practical Approaches for TVA," Report No. 6887 (December 1988).

"Environmental Noise Impact Assessment - Modernization of the Boise Cascade Rumford Mill," with D. Coate and S.B. Munier, Report No. 6809 (May 1988).

"Vibration and Noise Adjacent to the Southwest Corridor Project Before and After Realignment," Report Nos. 6729 and 6793 (April 1988).

"Audible Noise Monitoring Plan for the New England/Hydro-Quebec Phase II Transmission Facilities," Report No. 6582 (December 1987).

"Ocean State Power Project - Environmental Noise Impact," Report No. 6592, (October 1987).

"Effects of Track Fixation on Transit Train Passage Noise and Vibration at the Southwest Corridor Project," Report No. 6549 (July 1987).

"Noise Control Study and Recommendations for the Greenidge Station Units 3 and 4," Report No. 6536 (June 1987).

"Wind Turbine Generator Sound At Tudor Hill Laboratory," with I.L. Ver, Tech. Memo 959 (March 1987).

"Gas Compressor Station Noise - Technical Comments on Policy Proposed by the State of New York Public Service Commission," Report No. 6450 (February 1987).

"Transformer Noise Abatement at the OECO Brady Substation," Tech. Memo No. 948 (December 1986).

"Poletti Plant Noise Control Study During Gas Fired Operation - Volume 1 Data Report," with J.D. Barnes, Report No. 6401 (November 1986).

"Potomac River Generating Station - Exterior Noise Evaluation and Control Recommendations," Report No. 6309 (August 1986).

"A Comparison of Four Personal Noise Dosimeters," with A.R. Thompson, Report No. 6308 (July 1986).

"Induced Draft Fan Noise Evaluation and Control at Salem Harbor Unit No. 3," Report No. 5927 (July 1986).

"Brunswick Hydroelectric Project Units 2 and 3," Report No. 6186 (June 1986).

"NEC Production Spinwriter Series 8800 Printer - Noise Control Progress Report," Tech. Memo 863 (March 1985).

"Recommendations to Alleviate Community Noise Complaints Due to Brewery and Steam Plant Operations," Tech. Memo 851 (January 1985).

"Wood Fired Electric Generating Plant-Acoustical Study," Report No. 5521 (April 1984).

"Mufflers For Forced Draft Fan Motors - Development and Testing," Tech. Memo 793 (June 1984).

"Gloucester Diesel-Generator Station Units 1 through 11 - Noise Control Investigation," Report No. 5647 (June 1984).

"Shawmut Hydroelectric Plant - Evaluation of Installed Noise Control Treatments," Report No. 5716 (July 1984).

"Sulfuric Acid Area Noise Control Requirements - Phase 1 Technical Report," Tech. Memo 834 (November 1984).

"Occupational Noise Control Study - Charles P. Crane Generating Station," Report 5517 (January 1984).

"NEC Spinwriter 8800 Series Printer - Noise Control Progress Report," Tech. Memo 805 (February 1984).

"Noise Control Research and Development Program - Source Identification and Control Strategies - Shawmut Hydroelectric Project Generating Units 7 and 8," Tech. Memo 772 (August 1983).

"Noise Produced by Shotguns and Other Firearms," with C.W. Dietrich and A.R. Thompson, Report No. 5351 (July 1983).

"ID Fan Muffler at Colstrip Unit 3 - Noise Reduction Test Without Flow," Tech. Memo 747 (May 1983).

"Sound Level Measurements Near Susquehanna Steam Electric Station Site - 1982 Operation Noise Progress Report," Report 3024A-7 (March 1983).

"Noise Level Surveys at the Charles P. Crane, Gould Street, Calvert Cliffs,...Generating Stations," Report 4986 (1982 and 1983).

"ID Fan Acoustic and Aerodynamic Test Results at Colstrip Generating Station Unit 2," Reports 4987 and 5119 (April and August 1982).

"Noise Control Blanket Insulation - Development and Testing," Tech. Memo 691 (July 1982).

"Sound Level Measurements Near Susquehanna Steam Station Site, Construction 1981," Report 3024A-6 (December 1981).

"Employee Noise Exposure Study at the Yankee Rowe Station," Report 4690 (October 1981).

"Induced Draft Fan Muffler for Adolph Coors Boiler No. 5," Report 4805 (October 1981).

"Occupational Noise Control Demonstration Program at the Paradise Steam Plant," Report 4493 (March 1981).

"Sound Level Measurements Near Susquehanna Steam Electric Station Site, Construction 1980," Report 3024A-5 (March 1981).

"Community Noise Study of Clay Boswell Station Unit 4," Report 4499 (October 1980).

"Acoustical Study of Proposed Timber Swamp Road Substation," Report 4468 (July 1980).

"Results of ID Fan Muffler Installation at Wyman Unit 4," Report 4366 (April 1980).

"Sound Level Measurements Near Susquehanna Steam Electric Station Site, Construction 1979," Report 3024A-4 (March 1980).

"Acoustical Study of Proposed Small Arms Range at the Susquehanna Station," Report 4169 (July 1979).

"Muffler Requirements for Axial Flow I.D. Fans to be Installed at Brunner Island And Holtwood Stations," (June 1979)

"Preliminary Analysis of Construction Noise and Abatement Options," Report 4077 (March 1979).

"Sound Level Measurements Near Susquehanna Steam Electric Station Site Construction 1978," Report 3024A-3 (March 1979).

"The Noise Produced by Coal-Train-Unloading Trestle Facilities," Report 3916 (August 1978).

"Alternate Noise Control Treatment Design for the Sumner Boston Ventilation Building," Report 3883 (July 1978).

"Design of A Tuned Dissipative Muffler for the Induced-Draft Fans of the Mystic Generating Unit," (with I.L. Ver and W.E. Biker), Report 3680 (November 1977).

"Sound Level Measurements Near Susquehanna Steam Electric Station Site, Construction 1976," Report No. 3024A-2 (April 1977).

"Structureborne Noise and Vibration Analysis of the Turbine Generator System Proposed for the Floating Nuclear Power Plant of Offshore Power Systems (Conf. 21)," Report 3493 (March 1977).

"Centrifugal Fan Noise -- Comparison of Measured and Predicted Levels," Report 3317 (June 1976).

"Sound Level Measurements Near Susquehanna Steam Electric Station Construction Site - 1975 Construction Noise Progress Report," Report 3024A-1 (April 1976).

"Acoustical Evaluation of the Recently Completed Electrical Station (No. 509) in North Cambridge," Report 3118 (December 1975).

"Winter and Summer Acoustic Environment of the Sears Island Site," Report 3219 (December 1975).

"Ambient Sound Level Survey I & II at Charlestown, Rhode Island," Report 3088 (June 1975).

"Sound Level Measurement Survey of the W-251 Gas Turbine Installation at the Mistersky Power Station," Report 3058 (April 1975).

"The Acoustic Environment of the Pomfret and Sheridan Sites," Report 2981 (April 1975).

"Sound Level Measurements Near the Susquehanna Steam Electric Station Site; Pre-Construction and Construction," Report 3024 (March 1975).

"Acoustical Study of Substation 318, Present Facility and Proposed Addition," Report 2921 (January 1975).

"Acoustic Impact Statement for the Addition of Unit No. 5 at the Salem Harbor Generating Station," Report 2983 (January 1975).

"Sound Level Study at the Bowline Point Generating Station Unit No. 2," Report 2906 (October 1974).

"Sound Level Survey of the Concrete Batch Plant at the Limerick Generating Station," Report 2825 (May 1974).

"Community and In-Plant Sound Level Measurement Surveys at the Tampa Electric Company's Big Bend Station," Report 2892 (February 1974).

"Winter Acoustic Environment of the Jamesport and Shoreham Sites," Report 2656(b) (February 1974).

"Feasibility Study of Electric Generating Station Noise Control Methods," with R.M. Hoover and L.N. Miller, Report 2715 (February 1974).

"Acoustical Study of Proposed Electrical Substation (No. 508) Colburn Street, Roxbury," Report 2651 (October 1973).

"Ambient Sound Level Survey in the Vicinity of the Potential Sites for 1981/1983 Nuclear Units," Report 2620 (August 1973).

"Sound Level Study - Maine Yankee Atomic Power Station," Report 2559 (June 1973).

"Sound Level Study - Bowline Point Generating Station Unit I," Report 2554 (May 1973).

"Noise Environment in the Montour Steam Electric Station-Unit I," Report 2488 (April 1973).

"Acoustical Study of Proposed Electrical Distribution Station (No. 509) in North Cambridge," Report 2548 (April 1973).

"Community and In-Plant Noise Measurement Surveys at the Upper Peninsula Generating Company's Presque Isle Station, Marquette, Michigan," Report 2497 (January 1973).

Technical Reports regarding acoustic development programs of the JT9D Engine/747 Aircraft for Pratt and Whitney Aircraft and The Boeing Company (through May 1972).

PUBLICATIONS AND ORAL PRESENTATIONS

"Acentech's Experience with Students," (with Tom Horrall), InterNoise 2000, Nice, France, (August, 2000).

Presentation to Community Forum regarding operating sound of St Lawrence Cement Proposed Greenport Plant, Hudson, N.Y., November 2000.

Testimony regarding construction and operating noise of proposed paper mill and woodyard before Town of Madison, Planning Board, Madison, Maine, November/December 1995.

Presentation during public hearing before the Town of Russell Zoning Board of Appeals regarding operating noise expected from a proposed new saw mill, November 2000.

"Basics of Sound, Instrumentation, and Measurements" two training courses presented at Columbia Gas Transmission (with James D. Barnes) November 1992 and 1995.

"Noise Abatement in the Gas Compression Industry", lecture during the 1991 Eastern Gas Compression Roundtable, at West Virginia University, Morgantown, West Virginia, May 1991.

Testimony regarding operating noise of the proposed Rutledge Compressor Station before the Harford County Zoning Examiner, Harford County, Maryland, 1990.

"Induced Draft Fan Noise Evaluation and Control at the New England Power Company Salem Harbor Generating Station Unit No. 3," published in the Environmental Engineering proceedings of ASCE, July 1987, (with J.D. Barnes, E.J. Brailey Jr, and M. Reddy.)

"Tuned Muffler for Industrial Motors," (with C.C. Thornton), published in the proceedings of Inter Noise 86, pp 537-540 (1986).

Testimony regarding coal delivery and unloading noise at the Black Dog Generating Station presented during public hearings before the Planning Commission and City Council in Burnsville, MN (November, December 1985).

"Noise Control of Tube Turbine Units at Shawmut Hydroelectric Station," published in the proceedings of the Small Hydro Power Fluid Machinery 1984 Symposium, p. 149-156 and presented at the 1984 Winter Annual meeting of ASME.

"Flexible Blanket Noise Control Insulation Field Test Results and Evaluation," published in the proceedings of InterNoise 1984, p. 405-408, with C.C. Thornton.

"Minimizing Large Fan Muffler Costs," published in the proceedings of InterNoise 1984, p. 989-994 with I.L. Ver and A.M. Teplitsky.

"Flexible Blankets for Combined Thermal Insulation and Noise Control," published in Sound and Vibration, Vol. 17, No. 10, p. 14-16 (October 1983).

"Flexible Blankets for Noise Control Insulation," published in the proceedings of Internoise 1983, p. 733-736, with C.C. Thornton.

"Fan Noise Control and Energy Savings With Two-Speed Motors," (with Dinesh K. Patel, et al.), presented at the International Conference on Noise Control, Inter-Noise 82, San Francisco, CA (May 1982).

"Noise and Vibration Control for Interior Power Plant Equipment," presented at the Electric Council of New England spring meeting of the Power Generation Subcommittee (May 1982).

"Performance of Several Mufflers For Induced-Draft Fans," (with Robert M. Hoover), presented at the Acoustical Society of America, Fall Meeting, Miami, FL (December 1981).

"The Prediction, Measurement, and Control of Power Plant Draft Fan Noise," (with Robert M. Hoover), presented at the Electric Power Research Institute Symposium on Power Plant Fans - The State of the Art, in Indianapolis, IN (October 1981).

"Noise and Vibration Control For Exterior Power Plant Equipment," presented at the Electric Council of New England fall meeting of the Power Generation Subcommittee, Boothbay Harbor, ME (October 1980).

"What To Measure and Where," presented at a special workshop on Power Plant Fans In The Field, the Acoustical Society of America, Spring Meeting, Atlanta, GA (April 1980).

"Testimony with Regard to Operating Noise from Wyman Unit No. 3," presented to the Maine Department of Environmental Quality at their public hearing in Yarmouth, Maine (February 1979).

"Power Plant Construction Noise Emissions," (with Allan M. Teplitsky), presented at the 1978 International Conference on Noise Control Engineering, Inter-Noise 78, San Francisco, CA (May 1978).

"Measured and Predicted Levels of Centrifugal Fan Noise," presented to the ASTM Power Plant Workshop, sponsored by Task Group E33.08D (April 1978).

"Testimony with Regard to the Noise of Constructing Pilgrim Unit 2 Generating Station," at the Massachusetts Superior Court in Plymouth, MA (September 1977).

"Testimony with Regard to Operating Noise from the McIntosh Power Plant," presented at the Florida Department of Environmental Conservation public hearing in Lakeland, Florida (July 1977).

"Measurement of the Varying Noise Level from Power Plant Construction Sites," (with A.M. Teplitsky and J.D. Barnes), presented at the Acoustical Society of America, Spring Meeting, State College, PA (June 1977).

"The Impact of Construction Noise," presented to the American Society of Civil Engineers, Spring Convention, Dallas, Texas (April 1977).

"The Sound of Low Speed Fans," presented at the Cooling Tower Institute Annual Meeting, Houston (January 1977).

"Testimony with Regard to Environmental Noise for the Lake Erie Generating Station Application," presented to the New York State Public Service Commission at their public hearing in Dunkirk, NY (November 1976).

"Reduction in Community Noise Levels at the Yorktown Unit 3 Power Plant," presented at the Yorktown, Virginia town meeting (July 1976).

"Electric Power Plant Noise Reduction Case History," presented at the 1976 International Conference on Noise Control Engineering, Inter-Noise 76 Noise Clinic, Washington, D.C. (April 1976).

"The Sound of Transformers," presented at the 1975 International Conference of Doble Clients, Boston (March 1975).

"Ambient Sound Level Studies in Suburban and Rural Areas," (with James Barnes, et al) presented at the 1974 International Conference on Noise Control Engineering, Inter Noise '74, Washington, D.C. (September 1974).

"Environmental Noise," presented at the West Hartford High School Workshop for Secondary Level Teachers, The Undoing -- Our Environmental Crisis, West Hartford, CT (May 1974).

"The Noise of Forced and Induced-Draft Fans in Power Plant Installations," (with R.M. Hoover), presented at the 86th Meeting of the Acoustical Society of America, Los Angeles (November 1973).

"Noise Characteristics of Several Power Plant Boiler Feed Pumps," (with R.M. Hoover), presented at the 85th Meeting of the Acoustical Society of America, Boston (February 1973).

"Practical Ways to Hold Noise Within OSHA Limits," presented at the Power Magazine sponsored Technical Seminar and Workshop about OSHA, Cherry Hill, NJ (February 1973).

"Noise and OSHA," presented to the Central Oklahoma Section of the American Society of Mechanical Engineers, Oklahoma City (January 1973).

EW-2

Memorandum

To: Mike Bogin, Esq.
From: Eric W. Wood *EW*
Subject: KeySpan's Proposed Spagnoli Road Energy Project
Construction and Operating Noise at the Extended Stay Hotel
Date: 25 June 2002

Pile Driving Construction Noise Received at Extended Stay America Hotel

The maximum noise levels at 50-ft from impact pile drivers is listed as 105 and 107 dBA in the BBN 1971 and 1977 reports referenced by the Applicant.

The Extended Stay America Hotel is located about 1200 to 1400-ft to the northeast of the location of the proposed project.

The basis for my opinion that pile driving maximum noise can be expected to exceed 70 dBA at the Extended Stay America Hotel is most simply expressed as follows:

Pile driving noise at 1300 ft = (pile driving noise at 50 ft) - 20 x log (1300 ft / 50 ft)

Pile driving noise at 1300 ft = 106 dBA - 28 = **78 dBA**

Modified CNR Analysis of Operating Noise Received at Extended Stay America Hotel

The measured baseline noise and calculated operating noise for the Extended Stay America Hotel reported by the Applicant in Appendix 11A Table A-23 and Section D are listed below.

	Octave Band Center Frequency in Hz									dBA
	31	63	125	250	500	1000	2000	4000	8000	
Calculated Operating Noise in dB	61	59	56	50	48	43	39	31	5	49
Measured Baseline Noise in dB	54	55	51	43	39	36	33	23	15	42

The modified CNR analysis with the above tabulated data yield the "Initial Noise Rank of d" and the "Background Noise Correction of 0". Together this results in a "Final Rank of D" for project operating noise at the Extended Stay America Hotel.

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