STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

The United Illuminating Company Application for a Certificate of Environmental Compatibility and Public Need for the Construction, Maintenance, and Operation of a Proposed 115-kV/13.8-kV Electric Substation and Associated Facilities at 3-7 Wildflower Lane, Trumbull, Connecticut	)	Docket 317
	)	October 19, 2006

PRE-HEARING SUBMISSION OF THE UNITED ILLUMINATING COMPANY

The United Illuminating Company ("UI") hereby submits its response to the September 27, 2006 Hearing Procedure memorandum issued by the Connecticut Siting Council (the "Council") in preparation for the October 24, 2006 hearing before the Council on UI's application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of an electric substation to be located at 3-7 Wildflower Lane, Trumbull, Connecticut (the "Project"):

I. Witnesses

UI currently expects the following individuals to be witnesses at the hearing:

1. Mr. Richard Reed, UI's Vice-President – Electric System, 801 Bridgeport Avenue, Shelton, CT 06484. Mr. Reed will provide information on the Project and its design as well as technical information concerning the Project's safety and reliability, the site selection process, and the environmental effects and proposed mitigation measures, and other matters as outlined in UI's application to the Council.

2. Mr. John Prete, UI's Associate Vice President for Transmission, 265 Church Street, New Haven, CT 06510. Mr. Prete will provide information concerning the transmission benefit of the project .

3. Mr. Charles Eves, P.E., UI's Director of Electric System Strategic Planning, 801 Bridgeport Avenue, Shelton, CT 06484. Mr. Eves will provide information on the Project and its design as well as technical information concerning the Project's safety and reliability, the site selection process, and the environmental effects and proposed mitigation measures, and other matters as outlined in UI's application to the Council.

4. Ms. Kathleen Shanley, UI's Director of Environmental Safety & Real Estate, 801 Bridgeport Avenue, Shelton, CT 06484. Ms. Shanley will provide information on the site selection process, the impact from electric and magnetic fields, the environmental effects and proposed mitigation measures and environmental permitting requirements.

5. David J. Koehler, Senior Project Manager, Black & Veatch, LLP, 11401 Lamar Avenue, Overland Park, Kansas 66221. Mr. Koehler, a professional engineer, will provide technical information concerning the Project's design, safety and reliability information, the site selection process, and the environmental effects and proposed mitigation measures. Mr. Kohler's résumé is attached as Attachment 1.

6. Mr. Aaron L. Lewis, Engineering Manager and Substation Section Leader, Black & Veatch, LLP, 11401 Lamar Avenue, Overland Park, Kansas 66221. Mr. Lewis, a professional engineer, a professional engineer, will provide technical information concerning the Project's design, photo renderings, and the site selection process. Mr. Lewis' résumé is attached as Attachment 2.

7. Mr. W. Brent Ferren, P.E. Senior Acoustical Engineer, Black & Veatch LLP, 11401 Lamar Avenue, Overland Park, Kansas 66221. Mr. Ferren, a professional engineer, will provide technical information concerning the Project's noise assessment. Mr. Ferren's résumé is attached as Attachment 3.

8. Dr. Ralph E. Brooks, Environmental Services Group, Engineering and Construction Division, Black & Veatch, LLP, 11401 Lamar Avenue, Overland Park, Kansas 66221. Dr. Brooks will also provide technical information concerning the Project's environmental effects and proposed mitigation measures. Mr. Brooks' résumé is attached as Attachment 4.

9. Mr. J. Michael Silva, P.E., Enertech Consultants, 17 Main Street, Lee, MA 01238. Mr. Silva, a professional engineer, will provide information concerning electric and magnetic fields associated with the Project. Mr. Silva's résumé is attached as Attachment 5.

10. Other witnesses may be called, as necessary, to respond to interrogatories or Council questions at the hearings, or to address matters raised by parties or intervenors.

II. Pre-Filed Testimony

UI is filing pre-file testimony of Richard Reed concurrently with this filing.

III. Documents to be Administratively Noticed

Please refer to section XV of UI's application to the Council for the documents for which UI requests administrative notice.

Additionally, UI asks that the Council take administrative notice of the following:

Connecticut Siting Council Docket 217, Findings of Fact, Opinion, Decision and Order.
Connecticut Siting Council Docket 272, Findings of Fact, Opinion, Decision and Order.
Connecticut Siting Council Docket 311, Findings of Fact, Opinion, Decision and Order.

IV. Exhibits

UI does not presently have copies of exhibits which it will offer at the hearing. However, the following exhibits are anticipated to be offered into evidence at the hearing:

1. Application for Certificate of Environmental Compatibility and Public Need;
2. Municipal Consultation Materials;
3. Interrogatory responses to Siting Council Sets 1 and 2 and Wildflower Coalition Petitioners Set 1;
4. Resumes of the witnesses as indicated above;
5. Pre-file testimony of Richard Reed; and
6. Affidavit of Charles Eves regarding signs noticing hearing.

Respectfully submitted,

THE UNITED ILLUMINATING COMPANY

By _____
Linda L. Randell
Bruce L. McDermott
of Wiggin & Dana
One Century Tower
New Haven, CT 06508-1832
Telephone: (203) 498-4400
Telefax: (203) 782-2889

\10705\1431\619030.1

DAVID J. KOEHLER

Senior Project Manager

Project Management

Education
Bachelors, Civil, University of Nebraska, 1978

Professional Registration
Engineer (PE), Kansas, 1983,
Engineer (PE), Maryland, 1990
Engineer (PE), Connecticut 2006

Total Years Experience
27

Joined B&V
1979

Language Capabilities
English

Publications
Line Relocated for New Highway, Transmission and Distribution Magazine, September, 1995

Dave Koehler is currently assigned as a senior project manager in the Power Delivery Business Line of the Energy Division. He is responsible for management, administration, planning and control of projects associated with transmission and distribution systems. He is also responsible for the overall engineering management of the design, specifications, and drawings.

Representative Project Experience

Middletown-Norwalk, The United Illuminating Company: Bridgeport, Connecticut
2003-Present
Project Manager. Project Management of a 345 kV GIS substation and 345 kV and 115kV XLPE transmission systems. Includes preparation of conceptual and detail designs, cost estimates and system component studies investigating system configuration alternatives.

Transmission & Substation Projects, American Transmission Company: Pewaukee, WI
2001-Present
Project Manager. Project Management for numerous 69, 138 and 345 kV substations and transmission line facilities. Projects include 345/138 kV substation design and engineer, procurement and construction (EPC) of a 69 kV GIS facility in Madison, Wisconsin and an EPC 345/138kV substation in Oak Creek Wisconsin associated with a new coal fired power plant. Responsibilities also include development of numerous cost estimates and system design summary documents for use in the state permitting and licensing process.

T&D Services Alliance, Wisconsin Electric Power Company: Milwaukee, Wisconsin
1994-2001
Engineering Manager / Project Manager. Project management for numerous 138, 230 and 345kV Substation and Transmission line facilities. Projects include design of downtown Milwaukee 138kV substations and installation of 138kV underground transmission lines.

Trumbull Substation, The United Illuminating Company, Trumbull, Connecticut
2003-Present
Project Manager. Project management of the engineering, procurement and construction of a 115kV bulk distribution substation including two 115/13.8kV transformers and power distribution center.

Bridgeport Energy Switching Station, The United Illuminating Company: Bridgeport, Connecticut
1997-1998
Project Manager. Project management of 115 kV switching station used to interconnect an independent power producer's combustion turbine into UI's electrical system.

Allings Crossing Substation, The United Illuminating Company: West Haven, Connecticut
1992-1994

Project Engineer. Responsible for directing all design activities associated with a new 115 kV bulk distribution substation and transmission line tap.

Airport Substation, Hawaiian Electric Company: Honolulu, Hawaii
1990-1992
Project Civil Engineer. Responsible for directing civil-structural design of substations including 138 kV underground duct bank and manhole system.

H-3 Underground Crossing, Hawaiian Electric Company: Honolulu, Hawaii
1990-1992
Project Civil Engineer. Responsible for design of 138 kV underground transmission line section requiring riser structure design, duct bank, and manholes.

Sylmar HVDC Converter Station, Los Angeles Department of Water & Power: Sylmar, California
1986-1990
Lead Civil Engineer. Responsible for all civil-structural design including superstructure, foundations, and electrical duct system.

Stanton Energy Center, Orlando Utilities Commission: Orlando, Florida
1985-1986
Assistant Construction Manager. Construction contract management on the substation and associated transmission lines. Responsibilities included construction inspection and contract administration.

Twin Bridges Substation, City of Alexandria: Alexandria, Louisiana
1981-1985
Project Civil Engineer. Civil-structural design of substation and 138 kV overhead transmission lines.

Rawhide Station, Platte River Power Authority: Fort Collins, Colorado
1980-1981
Civil Engineer. Turbine generator pedestal and foundation design.

Black Fox Station, Public Service Company of Oklahoma: Iona, Oklahoma
1979-1980
Civil Engineer. Analyzed nuclear reactor containment vessel.

AARON L. LEWIS

Electrical Engineer

Design of Power Generation, Transmission, Distribution Systems, Project Development and Cost Estimating

Education
- B.S., Electrical, Kansas State University, 1993

Professional Registration
- Engineer-in-Training, Kansas, 1993
- Professional Engineer, Kansas, 1998
- Professional Engineer, Minnesota, 1998
- Professional Engineer, Wisconsin, 2003

Total Years Experience
13

Joined B&V
1993

Professional Associations
IEEE

Accomplishments
- Diverse project background in the power generation, transmission, and distribution industry.
- EPC project engineering experience.
- Proficient in project estimating, scheduling, and execution.

Last Updated 3-05

Arron Lewis is an Engineering Manager and Substation Section Leader for Black & Veatch Energy's Power Delivery business. His primary responsibilities include coordinating and supervising the design staff of electrical and structural engineers and technicians to provide all aspects of the substation design and procurement. He is responsible for the quality development of the physical, structural, control and protection, and equipment procurement designs of the entire substation. When applicable, Lewis is responsible for the coordination of the interface points with the adjacent power plant sites and interconnection requirements of the local utilities.

Lewis has field experience on gas, oil and coal fired generating facilities. during assignments in Indonesia, the Philippines and Pakistan, as well as domestic locations.

Project Background

Power Generation, AQC, and GOC Projects:
Section Leader. Provide conceptual design, proposal, detailed design, procurement, and construction support services on domestic and international substations that interconnect B&V power generation, air quality control, and gas, oil, and chemical projects with the local utility system.

Plum Point Power Plant, LS Power - Arkansas
Power Delivery Project Engineer. Detailed design, procurement, and construction of a 500 kV switchyard and interconnecting transmission line with a 650 MW power plant.

Cantarell Module 5 Project, CNC: Mexico
Power Delivery Project Engineer. Detailed design, procurement, and construction of a bay expansion to an existing 69 kV breaker-and-a-half substation.

Elm Road Substation, American Transmission Co.: Wisconsin
Engineering Manager. Detailed design, procurement, and construction of a large 345 kV, 15 position, breaker-and-a-half substation. Included additions to existing 138 kV and 230 kV substations and transmission line modifications.

Weston Unit 4 Interconnection, Wisconsin Public Service: Wisconsin
Project Engineer. Detailed design, procurement, and construction of a new 345 kV switchyard and interconnecting transmission line for a new 600 MW coal-fired unit.

Metro North New Haven Substation, United Illuminating Co.: Connecticut
Engineering Manager. Detailed design of a new 115 kV radial distribution substation.

Sycamore, American Transmission Co.: Wisconsin
Engineering Manager. Detailed design to convert a 138 kV substation from a main-transfer configuration to a five position ring bus.

Devon-Tie, United Illuminating Co.: Connecticut
Project Engineer. Detailed design to replace four 115 kV oil-filled breakers with SF_6 dead-tank breakers.

Trumbull Junction, United Illuminating Co.: Connecticut
Engineering Manager. Conceptual design of 115 kV, three-position ring bus and 13.8 kV distribution substation.

Port Washington, American Transmission Co.: Wisconsin
Engineering Manager. Conceptual design, cost estimating, scheduling, specification, and preparation of a design basis manual involving three substations and five transmission lines rated 138kV. Detailed design of upgrades to three substations, including the conversion of a 138 kV sectionalized radial bus to a four position quasi-ring bus.

Elm Road Power the Future, American Transmission Co.: Wisconsin
Project Engineer. Conceptual design, cost estimating, scheduling, specification, and preparation of a design basis manual involving fifteen substations and thirteen transmission lines rated 345 kV, 230 kV, and 138 kV.

Borah West and LaGrande Upgrades, Idaho Power Co.: Idaho
Project Engineer. Conceptual design, cost estimating, scheduling, specification, and preparation of facility study involving seven substations and three transmission lines rated 345 kV, 230 kV, and 138 kV.

Chiyoda CT-121 Process, Reference Plant: Various
Project Engineer. Design of electrical distribution, control and instrumentation systems associated with a flue gas desulfurization (FGD) system for a 700 MW generating facility. Prepared cost estimates, schedules, and system design specifications for CT-121 process.

Klamath Cogeneration Project, Pacific Klamath Energy: Oregon
Project Engineer. Design, procurement, and coordination of all electrical and control duties required for a 2 on 1 cogeneration power plant. Performed project schedule and budget tracking activities associated with electrical/control scope of work. Supervised lead engineer, design engineer, technician, drafter and specialist resources and provided construction and warranty support until final completion was attained.

Wet ESP Conversion Project, Northern States Power: Minnesota
Project Engineer. Design, procurement, and construction support for all electrical and control equipment required to convert an existing scrubber on a two unit 1500 MW coal fired power plant into a combination scrubber / wet electrostatic precipitator. Major equipment modifications were made to the medium-voltage switchgear, aux power switchboard, plant DCS system and scrubber control system.

Mt. Stuart Power Station, AES: Australia
Lead Electrical Engineer. Design and procurement for balance of plant power distribution system on a gas turbine generating facility.

ASPEC Development, Black & Veatch: Kansas
Lead Electrical Engineer. Created company standard guide specifications for medium and low-voltage switchgear, and generator circuit breakers.

Bin Qasim Power Plant, KESC: Pakistan
Commissioning Engineer. Commissioned the auxiliary electric control system and 2.5 MVA emergency diesel generator on a 250 MVA oil fired power plant. Designed and implemented field modifications to make systems operational.

Hanwha Repowering Project, HEC: Korea
Lead Electrical Engineer. Designed plant DCS logic, coordinated plant aux electric system retrofits and static excitation system upgrades for a 6 on 2 combined cycle facility repowering.

Pagbilao Power Project, CEPA Tileman/Southern Co.: Philippines
Commissioning Engineer. Commissioned the auxiliary electric, diesel generator, ash handling, electrostatic precipitator, generation, protective relay, motor, UPS, PLC and transformer systems on a two unit 800 MW pulverized coal facility. Assisted with plant performance and reliability testing. Trained plant operations staff. Interfaced with client and owner to complete punchlist items and address warranty issues.

Tanjung Jati B Project, PLN: Indonesia
Electrical Design Engineer. Designed auxiliary electric system, wrote equipment specifications and prepared logic diagrams for the balance of plant design for flue gas desulfurization and coal handling systems.

Mauara Karang Project, PLN: Indonesia
Commissioning Engineer. Commissioned medium and low-voltage switchgear. Assembled plant startup packages.

Pagbilao Power Project, CEPA Tileman: Philippines
Electrical Design Engineer. Designed and procured low-voltage motor control system and plant test equipment for a two unit 800 MW pulverized coal facility. Performed preshipment inspections and witness testing on medium and low-voltage switchgear, MCC, transformers and generators.

W. BRENT FERREN, P.E.

Senior Acoustical Engineer

Education
Bachelors, Mechanical, Southern Methodist University, 1989
Masters, Mechanical – Acoustics/Noise Control, Purdue University, 1991

Professional Registration
Kansas

Professional Associations
Acoustical Society of America
Institute of Noise Control Engineering (INCE)

Total Years Experience
17

Joined B&V
1995

Language Capabilities
English

As Senior Acoustical Engineer, Mr. Ferren manages the acoustical consulting staff and coordinates the acoustical design of Black & Veatch's projects worldwide. He participates in projects across all Black & Veatch divisions and service areas. As such, projects include power generation facilities, electrical substations, water/wastewater treatment facilities, pump stations, refinery/petrochemical plants, and manufacturing facilities as well as transportation/highway projects, land use development, aviation facilities, airports, and federal facilities. Mr. Ferren's experience includes projects throughout the United States as well as Argentina, Australia, Canada, China, Columbia, Egypt, Ghana, Great Britain, India, Italy, Mexico, Philippines, South Korea, Thailand, Turkey, United Arab Emirates, and Venezuela.

Projects range from small consulting projects to large engineering, procurement, and construction (EPC) projects. Responsibilities often include facility noise assessments, noise regulation reviews, community noise evaluations, land-use compatibility planning, environmental noise assessments, permitting/site certification studies, public hearings, traffic noise analyses, room acoustics design, architectural sound isolation design, and building systems noise control. Mr. Ferren coordinates Black & Veatch's contractual project noise guarantees with the chief engineering staff and coordinates the project acoustical specifications with the project team and equipment suppliers.

Before joining Black & Veatch, Mr. Ferren provided acoustical consulting for projects throughout the Rocky Mountain and western states including the Hawaiian Islands. He gained extensive experience in the built environment involving architectural acoustics as well as mechanical system noise and vibration control. He designed sound isolation and room acoustics for concert halls, performing arts centers, auditoriums, schools, universities, churches, convention centers, and office buildings. In addition, Mr. Ferren designed noise and vibration control for numerous heating, ventilating, and air-conditioning systems to create functional working, listening, and living environments within occupied spaces. Mr. Ferren also conducted environmental assessments and impact studies (EA/EIS) of community noise, industrial noise, aircraft and traffic noise, and construction noise as related to land use compatibility and zoning regulations.

Before Mr. Ferren's position as an acoustical consultant, he conducted research in the area of active noise control at the Ray W. Herrick Laboratories of Purdue University. His research included theoretical and experimental investigations to determine the feasibility of utilizing active noise control techniques to reduce the impact of road noise within automobile cabins. Additional investigations included the active control of sound radiating from ducts with particular applications to vehicle exhaust noise and building ventilation system noise.

Representative Project Experience

Swenson Substation, Nevada Power Company; Las Vegas, Nevada
2005
Senior Acoustical Engineer. Black & Veatch was engaged to assess the potential noise impacts on nearby residential neighbors and to evaluate compliance with the local noise regulations as related to the proposed substation. The new installation included four 138/13 kV transformers within in a mixed-use commercial/residential area. An ambient noise survey was conducted to assess the existing acoustical environment within and surrounding the substation. Subsequent substation noise modeling and impact evaluation was performed. An environmental noise assessment report was submitted to Nevada Power Company for use during the permitting process.

Renaissance Substation, National Grid; Amherst, New York.
2005
Senior Acoustical Engineer. Black & Veatch was engaged to assess the potential noise impacts on nearby residential neighbors due to the proposed expansion of the existing Renaissance Substation. The expansion plans involved the installation of two 115/13.2 kV transformers near the two existing 115/13.2 kV transformers. An ambient noise survey was conducted to assess the existing acoustical environment within and surrounding the substation. Subsequent substation noise modeling and impact evaluation was performed. An environmental noise assessment report was submitted to National Grid for use during the permit/approval process.

Kamoku Substation, Hawaiian Electric Company, Inc.; Honolulu, Hawaii
2004-2006
Senior Acoustical Engineer. Black & Veatch was engaged to provide the design of a new 138-46 kV (80 MVA) transformer at the existing Kamokou Substation. The existing substation was an energized 138-25 kV (30/40/50 MVA) indoor facility located within a residential district of Honolulu. An ambient noise survey was conducted to evaluate existing compliance with the local noise regulations. Acoustical design measures were evaluated and incorporated into the design of the expansion to support continued compliance with the local regulations. Measures included the attenuation of all building ventilation noise via duct silencers, acoustical louvers, lined plenums, and low-noise equipment.

Freneau Substation, First Energy Corporation; Monmouth County, New Jersey
2004-2005
Senior Acoustical Engineer. Black & Veatch was engaged to evaluate and address substation noise emissions that were causing complaints from adjacent residential neighbors. Sound level measurements were conducted at the substation to quantify the facility noise emissions. Results indicated two recently installed transformer units were emitting significant tonal sound energy and subsequently causing complaints from neighbors and non-compliance with the local noise regulations. A noise barrier wall was designed to mitigate the noise from the offending units in the direction of the residences. This project included the specification, procurement, and construction of the noise barrier wall as well.

Wachusett Substation No. 47, National Grid; West Boylston, Massachusetts
2004
Senior Acoustical Engineer. Black & Veatch was engaged to assess the potential noise impacts on nearby residential neighbors due to the proposed expansion of the existing Wachusett Substation. The expansion plans involved the installation of four 345/115 kV transformers, three 115/69 kV transformers, and the relocation of one 115/69 kV transformer. An ambient noise survey was conducted to assess the existing acoustical environment within and surrounding the substation. Subsequent substation noise modeling and impact evaluation was performed. An environmental noise assessment report was submitted to the Massachusetts Department of Telecommunications and Energy.

Ward Hill Substation No. 43, National Grid; Haverhill, Massachusetts
2004
Senior Acoustical Engineer. Black & Veatch was engaged to assess the potential noise impacts on nearby residential neighbors due to the proposed expansion of the existing Ward Hill Substation. The expansion plans involved installation of four 345/115 kV transformers, two 115/13.8 kV transformers, and the replacement of three transformers with one new 115/24 kV transformer. An ambient noise survey was conducted to assess the existing acoustical environment within and surrounding the substation. Subsequent substation noise modeling and impact evaluation was performed. An environmental noise assessment report was submitted to the Massachusetts Department of Telecommunications and Energy.

Kickapoo Substation, Ameren Cilco, Logan County, Illinois.
2002-2003
Senior Acoustical Engineer. The existing Kickapoo Substation is comprised of eight 1.6 MW diesel-powered engine generators capable of a total capacity of 12 MW of peak-demand electrical power. A sound level survey was conducted to evaluate compliance with the State of Illinois noise regulations. Retrofit noise mitigation options for the generators were developed and recommended to achieve compliance with the regulations.

DR. RALPH E. BROOKS

ENVIRONMENTAL COORDINATOR / PROJECT MANAGER

Wetlands Analysis, Delineation, and Mitigation

Threatened and Endangered Species Studies

Vegetation Identification, Analysis and Assessment

Feasibility Studies

Environmental Impact Assessment

Biological Assessment and Evaluation

National Environmental Policy Act (NEPA) Compliance

Federal Energy Regulatory Commission (FERC) Compliance

Dr. Brooks is assigned to the Environmental Services Group of the Energy Engineering and Construction Division. He has 15 years of experience at Black & Veatch in managing and coordinating environmental studies or permitting processes to assure compliance with applicable federal, state or local environmental regulations, especially Clean Water Act permitting (wetlands), FERC and NEPA compliance, the Endangered Species Act, and the National Historic Preservation Act. Dr. Brooks assists in conducting many of the environmental studies, since he has extensive training and more than 25 years of professional experience in the areas of wetlands, threatened and endangered species, plant ecology, wetlands, botany, and environmental permitting prior to joining Black & Veatch. He has experience in planning public use, interpretive, and recreational facilities; siting and permitting facilities such as water intakes, pipelines, roads, and various structures; and working with habitat improvement projects, including bank stabilization and riparian and wetland habitat enhancement. Dr. Brooks is an experienced client to agency consultant that has had the added benefit of nearly 20 years of employment with regulatory agencies.

Since joining Black & Veatch, Dr. Brooks has provided biological, ecological, and permitting/licensing expertise for feasibility studies, siting studies, field surveys, report and permit preparation, and agency consultation for a wide range of infrastructure projects throughout the United States and overseas. Dr. Brooks has coordinated and/or assisted in the preparation of environmental assessments and conducted numerous natural resources studies (vegetation and habitat assessments, wetlands, protected species). He has participated in numerous projects subject to Federal Energy Regulatory Commission (FERC) and National Environmental Policy Act (NEPA) compliance. These activities have been associated with domestic and overseas site-specific projects (e.g., landfills, water supply reservoirs) and linear facilities (transmission lines, fiber optic cables, gas pipelines, water pipelines and roadways) have also been accomplished.

Education

B.A., Biology, Kansas State Teachers College, 1972

M.A., Biology/Botany, University of Kansas, 1974

Ph.D., Botany, University of Kansas, 1989

Certification

Wetland Delineation Specialist (WTI, Seattle)

Total Years Experience: 34

Joined B&V: 1991

Professional Associations

- American Society of Plant Taxonomists
- Great Plains Flora Association
- Society of Wetland Scientists
- North American Flora Association

Project Experience

New Jersey Pinelands Transmission Project, Potomac Electric Power Company (Pepco), Vineland, New Jersey. Ecological services (e.g., wetlands, protected species, wildlife, vegetation) is being provided for the construction of 7 separate overhead transmission lines (up to 25 miles each) and 2 substations in New Jersey. Wetlands activities included the preparation of separate New Jersey Pinelands Commission permits and New Jersey/Corps of Engineers 404 permits. Separate environmental assessments and permits are being prepared for each line and substation between 2006 and 2009.

Potomac River Project, Potomac Electric Power Company (Pepco), Oxon Hill, Maryland. Ecological services (e.g., wetlands, protected species, wildlife, vegetation) were provided for the construction of approximately 3 miles of overhead 69 kV transmission line and 9 miles of underground 230 kV transmission line that was routed in the Oxon Hill area of Maryland and included portions of the District of Columbia. Wetlands activities included the preparation of separate Maryland programmatic permits for activities in wetlands which is used in place of the usually Corps of Engineers wetlands permit. In addition, separate environmental assessments were prepared for both lines.

Milan Transmission Rebuild, International Transmission Company (ITT), Detroit, Michigan. ITT was assisted in securing environmental clearance for rebuilding approximately 25 miles of 120 kV transmission line in south-east Michigan. Primary issues included wetlands, protected species and stormwater/erosion. B&V was able to secure and exemption from state and Corps of Engineers wetlands permitting and secured other environmental clearances in less than four months to the satisfaction of the client and construction contractors.

Trumbull Junction Substation, United Illuminating Company, New Haven, Connecticut. Conducted field studies and prepared environmental permits for the construction of a new substation in Trumbull, CT. The greenfield site was assessed for wetlands, threatened and endangered species, cultural resources and other issues pertinent to the rural residential site. All interactions with agencies were conducted on behalf of the client. The job was completed over a period of about six months.

Peters Road-Alliance 230 kV Transmission Line Routing Study, Entergy Louisiana, New Orleans, Louisiana. B&V provided route selection services for approximately 20 miles of new transmission line. Field studies were conducted to examine numerous alternatives. Initial agency consultations were made to insure the feasibility of the final route selection. Numerous wetlands were present and protected species had to be considered while selecting routes. Other issues addressed included viewshed, current and future land use, land ownership, and cultural resources. The job was completed over a period of six months.

161 kV Transmission Project, Entergy Arkansas, Inc., Little Rock, Arkansas. Entergy Arkansas, Inc. of Little Rock, Arkansas is proposing to construct and operate a 24 mile, 161 kV transmission line in Conway and Faulkner counties. Black & Veatch was hired by Entergy Services, Inc. to identify preferred and alternative routes and to prepare an Environmental Impact Statement (EIS) for submittal to the Arkansas Public Service Commission. The EIS supported an application for a Certificate of Environmental Compatibility.

ISES to Newport Transmission Study, Entergy Services, Inc., Arkansas. A routing study was made for 12 miles of new 230kV line in northeast Arkansas. The study included a broad range of socio-economic and biological topics to select preferred and alternative routes. The study was followed by the preparation of an environmental assessment for the preferred route.

Lakeover to Yandell 230kV Routing Study, Entergy Services, Inc., Mississippi. A routing study was made for a new 230kV line in central Alabama. The study included a broad range of socio-economic and biological topics to select preferred and alternative routing.

Southwestern Power Administration Environmental Compliance Review, Tulsa, Oklahoma. An administration-wide (Missouri, Arkansas, and Oklahoma) environmental compliance review was conducted to determine the effectiveness and efficiency by which SWPA managed environmental issues as a course of business for its three-state transmission system. The primary areas of concern centered on maintenance and operations activities relating to potential impacts to threatened and endangered species, wetlands and hazardous waste handling.

LaGrande to Brownlee (Oregon) Transmission Project, Idaho Power Company, Boise, Idaho. Routing and permitting assessments were made for a new 80 mile 159kV transmission line in northeast Oregon. Once the route was established, a wide range of feasibility level environmental studies was conducted along the route. These included wetlands assessments and federal and state protected species assessments. The route

would require filing a Special Use Permit with the BLM, including completing a biological assessment which was begun, as well as numerous local, state, and federal permits if the project moves forward.

Upper Peninsula Transmission Line Environmental Assessment, Wisconsin Electric, Escanaba, Wisconsin. Coordination and preparation of EA and BA for 75 miles of new transmission corridor through National Forest land in Michigan. The studies and documents were required for NEPA compliance. Key issues included wetlands and threatened and endangered species compliance. All agency consultation was conducted by B&V.

RESUME

NAME: James Michael Silva

POSITION: President - ENERTECH Consultants
494 Salmar Ave.
Suite 200
Campbell, CA 95008

EDUCATION: B.S. Engineering University of Alabama
M.S. Engineering Auburn University

PROFESSIONAL ENGINEERING REGISTRATION: California - **Electrical Engineering**

Other P.E. Licenses: Connecticut, New York, Texas, Massachusetts, Pennsylvania, Alabama, Nebraska.

SUMMARY OF EXPERIENCE:

Mr. Silva has worked at The Southern Company (1970-1979) in transmission line design. He was responsible for supervising the preparation of design specification, special environmental studies on corona, audible noise, vibration studies, and electric & magnetic fields, and technical planning relating to electric transmission lines. He has also worked in the substation-estimating group. He worked for approximately 1-1/2 years at the Electric Power Research Institute (1977-1978) as a project manager for AC and DC overhead lines. In this position, he directed many research projects relating to electric power transmission lines including: An evaluation of electric field effects of transmission lines (work done at Project UHV), Conductor Motion Reference Book, mechanical vibration studies, study of flashover mechanisms for contaminated insulation, corona performance and audible noise, instrumentation development for HVDC lines and stations, design data for ±600 kV to ±1200 kV HVDC lines, and many related projects. He worked at GAI Consultants (1979-1982) in transmission line engineering projects. He also was a lecturer on transmission line engineering and vibration topics. In 1982, Mr. Silva founded ENERTECH Consultants, where he is currently employed as President and as a Research Engineer. ENERTECH is involved in a wide range of engineering and research projects including EMF exposure assessment for transmission lines and development of EMF software and instrumentation. Mr. Silva was a past advisor to the EPRI and Department of Energy research programs, and a participant in the biological effects technical exchange program with the Soviet Union (Cooperative Health Agreement on Bioeffects of ELF Fields). He is a past member of a National Electric Safety Code committee. Mr. Silva has also served as an advisor to a variety of technical committees related to EMF effects of electric power facilities.

Mr. Silva is currently an active member of the Bioelectromagnetics Society (BEMS), the Institute of Navigation, the U.S. National Committee of CIGRE (the International Council on Large Electric Systems located in Paris), and a Senior Member of the Institute of Electrical and Electronics Engineers (IEEE) Power Engineering Society. In IEEE he has served for ten years as the secretary of the Corona and Field Effects Subcommittee and is a member of the following working groups: AC Fields, DC Fields and Ions, Design and Environmental Considerations, and Environmental Treatment of Transmission Lines. He worked on the IEEE Team to prepare a guide booklet and layman/regulator's

paper on corona and field effects of transmission lines. He has received awards and recognition for some of his published technical papers. He has delivered numerous lectures on EMF research activity and is very active in exposure assessment research. He has served as a scientific reviewer and publication referee for IEEE, BEMS, the Journal of Exposure Analysis and Environmental Epidemiology, the Journal of Occupational and Environmental Hygiene, and the American Journal of Epidemiology.

Mr. Silva has been active on research projects to evaluate public exposure to transmission line electric and magnetic fields and is a frequent lecturer on EMF. The primary focus of his EMF research is the development of exposure assessment techniques, software, and instrumentation. Important elements in his exposure assessment experience have been the planning, organization and execution of exposure measurements at a variety of locations throughout the U.S. This has included Enertech's work on large EMF exposure assessments, such as: the EPRI 1000 Home Nationwide Study, the DOE 1000 Person Study, and the California State-Wide School Measurement Study, California Study of Pregnancy Outcomes, and the Nationwide study of cancer promotion in children. In addition, Mr, Silva has been involved in a variety of magnetic field mitigation and shielding projects. He has also directed work on state-of-the-art exposure instrumentation (sold in 42 countries), such as the EMDEX II, EMDEX-Lite, EMDEX-Snap, Amp-Logger, WaveCorder, and the GPS-Pal.

Mr. Silva has directed the development of EXPOCALC, a computer program that can be used to model transmission line electric and magnetic field exposure. He also wrote the technical manual that describes EXPOCALC. The software uses data collected by him during an extensive exposure measurement program in several states across the U.S. EXPOCALC includes many new technical methods that were developed as a result of new instrumentation, computer modeling, and exposure measurements. He has also directed development of the EMF Workstation (EMFW) software and co-authored the 500 page EPRI Handbook/CD-ROM of Electric and Magnetic Field Management Principles for Power System Fields. This book describes EMF mitigation and shielding techniques. He led a team that developed a small personal GPS logger. He has recently completed research on the potential for electric power lines to affect GPS use. Mr. Silva is also assisting the Electric Power Research Institute by managing EPRI research programs on Electromagnetic Compatibility (EMC) and RF Safety and Wireless Technology.

Professional Affilations:

IEEE - Power Engineering Society - Senior Member
Bioelectromagnetics Society – Member
Institute of Navigation- Member
CIGRE (International Council on Large Electric Systems)- U.S. National Committee member

Special Recognition and Activities:

1978 University of Texas Power System Seminar - Lecture Series

1979 University of Southern California Lloyd Hunt Distinguished Lecturer-Power Engineering

1980 Ohio State University Electrical Engineering Colloquium - Distinguished Lecture Series

1981 Electric Research Institute of Mexico - Guest Lecturer at the International Symposium on Transmission Lines held in Cuernavaca, Mexico

1983 Chairman of Health Effects Session at Third International Conference on Live-Line Maintenance in Atlanta, Georgia

1988 IARC (International Agency for Research on Cancer) Workshop on Exposure Assessment Research Coordination in Lyon, France

1991 Chairman of the Task Force on Wire Codes and Magnetic Fields at the EPRI Community Exposure Workshop in Memphis, TN.

1992-1994 Technical Referee (reviewer) for Bioelectromagnetics Society Journal publications

1994 Invited speaker on EMF at American Conference on Occupational Medicine in Chicago, Illinois

1998 Co-Chairman of Sources and Exposure Metrics for ELF Epidemiology Discussion Session at NRPB/World Health Organization International Workshop on Exposure Metrics and Dosimetry for EMF Epidemiology held in Oxford, England, September 7-9, 1998.

LIST OF PUBLICATIONS, REPORTS, COMMITTEE DOCUMENTS, PRESENTATIONS

Lectures at University of Texas Power System Seminar - "Current Research Projects Relating to HV/EHV/UHV Transmission Lines", Austin, Texas, February 28, 1978.

Silva, J.M., "Environmental Considerations for the Modern Transmission System", Educational Television presentation Lloyd Hunt Distinguished Lecture Series in Power Engineering, Los Angeles, California, February 27, 1979.

Lecturer at Ohio State University - Electrical Engineering Colloquium Distinguished Lecture Series, "Research on the Biological Effects of Electric and Magnetic Fields of Transmission Lines", Columbus, Ohio, April 10, 1980.

Ramey, G.E. and Silva, J.M., "An Experimental Evaluation of Conductor Aeolian Fatigue Damage Mitigation by Amplitude Reduction", IEEE Transactions on Power Apparatus and Systems, Vol. PAS-100, No.12, pp. 4935-4940, December 1981.

Chairman and Speaker: Institute of Electrical and Electronics Engineers Panel Session on the "National Electrical Safety Code (NESC)- 5 mA Rule and Electric Field Induction" at IEEE Winter Power Meeting, New York City, February 1983.

"Electrical Effects of AC Power Transmission Lines: An Introduction for the Public", IEEE Power Engineering Society, Corona & Field Effects Working Group Brochure, February 1983.

"Modeling Public Exposure to AC Fields", platform presentation by J.M. Silva at U.S. Department of Energy Annual EMF Contractors Research Review Meeting, Kansas City, MO, 1983.

Deno, D.W., Silva, J.M., "Method for Evaluating Human Exposure to 60 Hz Electric Fields", IEEE Transactions on Power Apparatus and Systems, Vol. PAS-103, No.7, pp. 1699-1706, July 1984.

Silva, J.M., Kavet, R.I., "Estimating Public Exposure to Power-Frequency Electric Fields", DOE60 Symposium Series, 23rd Hanford Life Sciences Symposium on Interaction of Biological Systems with Static and ELF Electric and Magnetic Fields, pp. 419-435, Richland, WA, October 2-4, 1984.

Silva, J.M. et.al, "AC Field Exposure Study: Human Exposure to 60 Hz Electric Fields", EPRI Report EA-3993, April 1985.

Silva, J.M., Zaffanella, L.E., Hummon, N.P., "An Activity Systems Model for Estimating Human Exposure to 60 Hz Electric Fields", IEEE Transactions on Power Apparatus and Systems, Vol. PAS-104, No.7, pp. 1923-1929, July, 1985.

"Corona and Field Effects of AC Overhead Transmission Lines: Information for Decision Makers", IEEE Power Engineering Society, Corona and Field Effects Subcommittee- AC Fields Working Group document on EMF, corona, and audible noise, New York, July 1985.

Silva, J.M., Huber, D.L., "Exposure to Transmission Line Electric Fields During Farming Operations", IEEE Transactions on Power Apparatus and Systems, Vol. PAS-104, No. 9, pp. 2632-2640, September, 1985.

Deno, D.W., Silva, J.M., "Probability and Consequence of Gasoline Ignition Under HVAC Transmission Lines", IEEE Transactions on Power Apparatus and Systems, Vol. PAS-104, No.11, pp. 3181-3188, November, 1985

The EXPOCALC Code, Version 1.10: A Tool for Estimating Human Exposure from Transmission Line Electric Fields - User's Manual and Documentation: EA-4489-CCMP; EPRI Research Project RP799-16; Enertech Consultants, J.M. Silva, Principal Investigator; Computer Code Manual, April 1986.

"Magnetic Field Exposure Assessment: Instrumentation, Residential Measurements, and Exposure Modeling Software", Silva, J.M., platform presentation at U.S. Department of Energy Annual Review of Research on Biological Effects of Electric and Magnetic Fields, Denver, CO, 1986.

Deno, D.W., Silva, J.M., "Transmission Line Electric Field Shielding by Objects', IEEE Transactions on Power Delivery, Vol. PWRD-2, No. 1, pp. 269-280, January, 1987.

"Magnetic Fields: A Status Report", J.M. Silva, presented at Fortieth Annual Power Distribution Conference, University of Texas-Austin, published in Conference Proceedings, October, 1987.

EXPOCALC Version 2.1: An Exposure Assessment Tool for Transmission Line Electric and Magnetic Fields - User's Manual and Documentation; EA-5765-CCML; EPRI Research Project

RP799-16; Enertech Consultants, J.M. Silva, Principal Investigator, Computer Code Manual, April 1988.

Domestic Magnetic Field Database: User's Manual and Documentation; EA-5972-CCML; EPRI Research Project RP799-16; Enertech Consultants, J.M. Silva, Principal Investigator; Computer Code Manual, August 1988.

"Estimating Electric and Magnetic Field Exposure", Silva, J.M., paper presented at the 1988 Seminar on Power-Frequency Electric and Magnetic Field Exposure Assessment, Colorado Springs, CO., October, 1988.

Silva, J.M., Hummon, N.P., Rutter, D.A., Hooper, H.C., "Power Frequency Magnetic Fields in the Home", IEEE Transactions on Power Delivery, Vol. PWRD-4, No. 1, pp. 465-478, January, 1989.

EMDEX System Manuals - Volume 1: User's Manual, EPRI EN-6518, Vol. 1, Research Project RP799-16; Enertech Consultants, J.M. Silva, Principal Investigator, October, 1989.

EMDEX System Manual - Volume 2: Technical Reference Manual, EPRI EN-6518, Vol. 2, Research Project RP799-16; Enertech Consultants, J.M. Silva, Principal Investigator, October, 1989.

Silva, J.M., Kavet, R., "An Alternative Hypothesis for Association Between Distribution Wiring Configurations and Cancer: Planning Phase", RP 2966-2, EPRI EN-6863, June 1990.

"Extremely Low-Frequency Electric and Magnetic Fields and Risk of Human Cancer", World Health Organization-International Agency for Research on Cancer; IARC Ad Hoc Working Group (24 members including J.M. Silva), Bioelectromagnetics, 11:91-99, 1990.

"Measurements of Power Frequency Magnetic Fields Away From Power Lines", A Report of the IEEE PES AC Magnetic Fields Working Group, M. Misakian, M. Silva, R. Baishiki, principal authors, Paper No. 90 SM 423-4 PWRD presented at 1990 Summer Power Meeting, IEEE Transactions on Power Delivery, 1990.

"Studies of Power System Magnetic Fields: Characterization of Sources in Residential Environments, Measurements of Exposure, Influence on Computer Screens", U.S. Committee, CIGRE-ELECTRA, Paris, France, 1990.

IEEE Std 539-1990, "IEEE Standard Definitions of Terms Relating to Corona and Field Effects of Overhead Power Lines", Transmission and Distribution Committee of the IEEE Power Engineering Society, 1990.

EMDEX II System Documentation - Volume 1: User's Manual, EPRI Report EN-7497, Enertech Consultants, September 1991.

EMDEX II System Documentation - Volume 2: Technical Reference Manual, EPRI Report EN-7497, Enertech Consultants, September 1991.

Chairman of Wire Codes and Field Levels Working Group and presentation on Wire Code Interpretations, EPRI Community Exposure Workshop, Memphis, TN, November 1991.

RESICALC: Magnetic Field Modeling Program, EPRI Report TR-101776, Enertech Consultants, and December 1992.

Power Line Calculator for Windows, EPRI Report TR-101408, Enertech Consultants, December 1992.

Kavet, R., Silva, J.M., "Magnetic Field Exposure Assessment for Adult Residents of Maine Who Live Near and Far Away From Overhead Transmission Lines", Bioelectromagnetics, Vol. 13, No. 1, pp. 35-55, 1992.

"Small integrating meter for assessing long-term exposure to magnetic fields", Kaune, W.T., Niple, J.C., Liu, M.J., Silva, J.M., Bioelectromagnetics, Vol. 13, No. 5, pp. 413-428, 1992.

"Measurement of Electromagnetic Transients in Residential Environments", Guttman, J., Niple, J., Silva, M., platform presentation at U.S. Department of Energy Annual Review of Research on Biological Effects of Electric and Magnetic Fields from the Generation, Delivery, and Use of Electricity, San Diego, 1992.

"A Protocol for Spot Measurements of Residential Power Frequency Magnetic Fields", IEEE Magnetic Fields Task Force of the AC Fields Working Group, IEEE Transactions on Power Delivery, Vol. 8, No. 3, pp. 1386 - 1394, July, 1993.

"Reversed-Phase Lines May Reduce EMF Levels", Silva, J.M., Transmission & Distribution, pp. 44-45, November 1993.

"High-Bandwidth Measurements of Transient Magnetic Fields in Residential Environments", Guttman, J., Niple, J., Silva, M., Electricity and Magnetism in Biology and Medicine, San Francisco Press, 1993.

"Transient Data Acquisition System Used in the California Pilot Study: A Series of 24-Hour Measurements of Transient Magnetic Fields Performed in 21 Residences", Guttman, J.L., Niple, J.C., Silva, J.M., The Annual Review of Research on Biological Effects of Electric and Magnetic Fields from the Generation, Delivery, and Use of Electricity, U.S. DOE, Savannah, GA, 1993.

IEEE/ANSI Std. 644-1994, "IEEE Standard Procedures for Measurement of Power Frequency Electric and Magnetic Fields from AC Power Lines", Institute of Electrical and Electronics Engineers, prepared by IEEE Working Group, 1994.

Residential Transient Magnetic Field Research, EPRI Report TR-103470, Enertech Consultants, March 1994.

Silva, M., Marshall, T., "Magnetic Fields in Schools: Sources and Management", IEEE/PES Transmission and Distribution Conference and Exposition, Chicago, April 10-15, 1994.

"Handbook of Shielding Principles for Power System Magnetic Fields", Vols: 1 and 2, Clairmont, et. al., EPRI Report TR-103630, April 1994.

"RESICALC 2.0 - Magnetic Field Modeling Program, ENERTECH, J. M. Silva, et. al., EPRI Report TR-104274, October 1994.

"IEEE Standard Procedures for Measurement of Power Frequency Electric and Magnetic Fields from AC Power Lines", Institute of Electrical and Electronics Engineers, Corona and Field Effects Subcommittee - AC Fields Working Group, IEEE/ANSI Std. 644-1994, 1994.

IEEE Std 1308-1994, "IEEE Recommended Practice for Instrumentation: Specifications for Magnetic Flux Density and Electric Field Strength Meters – 10 Hz to 3 kHz", Transmission and Distribution Committee of the IEEE Power Engineering Society, 1994.

"Computer CRT Monitor Performance in the Presence of Power-Frequency Magnetic Fields", EEI Task Force on EMF, December, 1997.

Silva, J.M. "Personal Exposure Logging for ELF Fields", paper presented at World Health Organization International Workshop on Exposure Metrics and Dosimetry for EMF Epidemiology, September 7-9, 1998 in Oxford, England, Journal of Radiation Protection Dosimetry, pp. 41-45, vol. 83, Nos. 1-2, September, 1999.

Electric and Magnetic Field Management Reference Book, M. Silva and L. Zaffanella, EPRI Reference Book and CD-ROM, Research Project TR-114200, December, 1999.

Silva, J.M., "The Nationwide Differential Global Positioning System and Electric Power Line Interference", presented at Institute of Navigation (ION) GPS 2000 Conference, Salt Lake City, Utah, September 20, 2000.

Silva, J.M., "Study of the Potential for Electric Power Facilities to Affect Use of The Global Positioning System (GPS)", EPRI Final Report No. 1000085, September, 2000.
"Power System Electromagnetic Compatibility", Silva, J.M., Olsen, R.G., Young, F.S., EPRI Resource Paper, Product No. 1001049, Palo Alto, CA, December, 2000.

"Alternative Magnetic Field Exposure Metrics: Relationship to TWA, Appliance Use, and Demographic Characteristics of Children in a Leukemia Survival Study", Foliart, D.E., Iriye, R.N., Tarr, K.J., Silva, J.M., Kavet, R.I., Ebi, K.L., Bioelectromagnetics, Vol. 22, No. 8, pp. 574-580, December 2001.

"Evaluation of the Potential for Power Line Noise to Degrade Real Time Differential GPS Messages Broadcast at 283.5-325 kHz", Silva, J.M., IEEE Transactions on Power Delivery, vol. 17, No. 12, pp 326-333, April, 2002.

"Evaluation of the Potential for Power Line Carrier (PLC) to Interfere with the Nationwide Differential GPS Network", Silva, J.M., Whitney, B., IEEE Transactions on Power Delivery, vol. 17, No. 12, pp 348-352, April, 2002.

"An Introduction to Electromagnetic Compatibility (EMC) Standards", Ramie, J., Silva, J.M., Olsen, R.G, EPRI Resource Paper, Product No. 1005494, Palo Alto, CA, July, 2002.

"Use of Global Positioning System (GPS) Receivers under Power Line Conductors", J.M. Silva, R.G. Olsen, IEEE Transactions on Power Delivery, vol. 17, No. 4, pp 938-944, October 2002.

"Correlation of year-to-year magnetic field exposure metrics among children in a leukemia survival study", Foliart, D.E., Iriye, R.N., Silva, J.M., Mezei, G., Tarr, K.J.,Ebi, K.L., Journal of Exposure Analysis and Environmental Epidemiology, 12(6), pgs 441-447, 2002.

"Transmission Line Corona and X-Rays", Silva, J.M., Fleischmann, H.H., Shih, C.H.., IEEE Transactions on Power Delivery, vol. 19, No. 3, pp 1472-1482, July, 2004.

"Electromagnetic Noise Emission Measurements Near FACTS Devices at the Inez UPFC Station", D. Klinect, D. Nichols, B. Mehraban, S. Sebo, L. Xu, X. Liu, B. Cramer, M. Silva, R. Olsen, and J. Ramie, Paper Presented at the 16th International Zurich Symposium on Electromagnetic Compatibility, Zurich, Switzerland, February 14-18, 2005.

"Electromagnetic Noise Emission Measurements Near the Flexible AC Transmission System (FACTS) Device at the Sullivan (TVA) Station", D. Klinect, D. Nichols, S. Sebo, L. Xu, X. Liu, B. Cramer, M. Silva, R. Olsen, and J. Ramie, Paper Presented at the 2005 PowerTech Conference, St. Petersburg, Russia, June, 2005.

"Limits Applied to Electromagnetic Noise Emission Measurements Near FACTS Devices", R. Olsen, J. Ramie, B. Cramer, M. Silva, S. Sebo, L. Xu, X. Liu, D. Klinect, D. Nichols, Paper Presented at the 2005 PowerTech Conference, St. Petersburg, Russia, June, 2005.

"Magnetic Field Exposure and Long-term Survival among Children with Leukemia", Foliart DE, Pollock BH, Mezei G, Iriye R, Silva JM, Ebi KL, Kheifets L, Link MP, Kavet R., British Journal of Cancer 2006; 94 (1): 161-164. (Corrigendum. British Journal of Cancer 2006; 94 (6): 940.).

"Magnetic field exposure and survival among children with leukemia" (Abstract), Foliart DE, Pollock BH, Mezei G, Iriye R, Silva JM, Ebi KL, Kheifets L, Link MP, Kavet R. Bioelectromagnetics Society, 28th Annual Meeting Proceedings, Cancun, Mexico, June 2006.

"Power Frequency Magnetic Field Exposure of Children at Schools Near High Voltage Transmission Lines" (Abstract), Cy Li, FC Sung, PC Lee, FL Chen, G Mezei, M Silva, Annual Meeting of the International Society of Environmental Epidemiology , Paris, September 2006.

"Survey of Residential Extremely-Low-Frequency Magnetic Field Exposure among Children in Taiwan", Chung-Yi Li, Gabor Mezei, Fung-Chang Sung, Michael Silva; Pei-Chun Chen, Pei-Chen Lee, Li-Mei Chen. Submitted to Environment International Journal, June 2006.

Mezei G, Li CY, Sung FC, Silva M, Chen PC, Chen LM. "Survey of residential power frequency magnetic field exposure among children in Taiwan". (Abstract) Bioelectromagnetics Society, 28th Annual Meeting Proceedings, Cancun, Mexico, June 2006.

"Magnetic field exposure and prognostic factors in childhood leukaemia", Foliart DE, Pollock BH, Mezei G, Iriye R, Silva JM, Ebi KL, Kheifets L, Link MP, Kavet R. Bioelectromagnetics (in press) 2006.