

All members, families and friends of **Polish-American Engineers Association** are cordially invited to attend our March 2009 meeting. **SPECIAL INVITATION** for Polish engineers and technicians who recently came to Chicago.

DATE: Friday, March 20th, 2009

TIME: 7:30 – 8:00 pm - Social Time
8:00 pm – Business and Technical Session

PLACE: Copernicus Center
5216 West Lawrence Ave.
Chicago, Illinois

SPEAKER: Dr. Jan Wisniewski PE
Manager Electrical Analytical Division
Sargent & Lundy

TOPIC: Re-emergence of Nuclear Power plants

Dr Wisniewski will discuss the present status of the nuclear power as the source of electricity. During the presentation he will address the technical issues and challenges facing the nuclear power industry at this time and the economics behind building the new nuclear generating units.

Dr. Wisniewski directs activities of engineers conducting power plant design studies, generation and transmission system planning studies, and other analytical work related to the evaluation of power system designs, performance, and operation. He provides technical direction for design activities related to selection and specification of major electrical power equipment.

He has more than 30 years of experience as an electrical engineer. He has worked on numerous system planning studies involving short-circuit, load-flow, and stability analysis. Dr. Wisniewski has carried out generation expansion studies involving the economic evaluation of alternative generation expansion plans to determine the optimum unit size, type, and timing. He has worked on major nuclear and fossil power plants, substations, and industrial systems. He directed the design of power plant AC and DC auxiliary systems, grounding, lightning protection, and cathodic protection systems for underground structures, water tanks, and condenser water boxes. His work included the evaluation and mitigation of the induction effects of transmission lines on nearby structures and facilities. Dr. Wisniewski developed and directed the development of engineering application software for power plant design studies and power system analysis.

Education:

Technical University of Wroclaw - Ph.D. Electrical Engineering - 1996

Illinois Institute of Technology - M.S. Electrical Engineering - 1972

Illinois Institute of Technology - B.S. Electrical Engineering - 1971

Dr. Wisniewski's experience includes the following:

New fossil and nuclear power plant, substation/transmission engineering and design

Basin Electric, Dry Fork 500MW new coal fired plant engineering and design.
Mid American Energy Company, Council Bluffs, 1000 MW new coal fired plant engineering and design.
Commonwealth Edison Company, design of 1000 MW supercritical Powerton coal fired units.
Central Illinois Power Company, design of 600 MW Newton coal fired units.
Central Louisiana Electric Power Company, design of Rodemacher fossil units.
Mitsui & Company, 185 MW Point Aconi fluidized bed boiler plant. Substation and plant design including unit start-up and commissioning support.
Commonwealth Edison Company, Byron/Braidwood Nuclear 1175 MW Units, plant design.
HIPDC, P. R. China, Dandong Units 1 and 2 and Dalian Units 3 and 4 350 MW coal fired units. Plant design.
SNERDI - P. R. China, substation and balance-of-plant electrical system design for 300 MW nuclear unit.
Korea Power Engineering Corporation 1200 MW YGN Nuclear Units 3 and 4. Electrical systems design.
Electricity Generating Authority of Thailand, South Bangkok 200 MW combined cycle unit. Plant design.

Existing fossil and nuclear power plant and substation betterment projects

American Electric Power, Amos 1-3, FGD system backfit. Electrical engineering and design for this 3100 MW facility.
Duke Energy, Gibson FGD system. Electrical engineering and design.
Boston Edison Company, Oil fired Mystic Unit 6. Life extension for substation and plant equipment.
New England Power Company, Manchester Street Station, repowering of four, 100 MW combustion gas turbines. Analysis of changes in the substation and the plant auxiliary systems.
Rochester Gas & Electric, Ginna Unit 1, nuclear unit electrical system modifications.
Point Beach nuclear plant calculation program.
Public Service Electric & Gas: Salem Nuclear Units. Development of detailed electrical design standards.
Public Service Electric & Gas: Hope Creek Nuclear. Plant design verification for the NRC.

Selected Studies

Ameren, Meredosia power plant switchgear replacement.
San Diego Gas and Electric, insulation coordination for a new 500/220KV substation.
South Texas Electric Cooperative: Generation and transmission system expansion study.
PLN - Indonesia, unit size determination, location and transmission system expansion for the new Central Java generation plant.
ARCO Asia Pacific, LTD, P. R. China, analysis of the demand/supply, dispatch regulation and power tariff structure in China.

CEA, Inc., P. R. China, technical/financial evaluation of the Jingyuan, China 600 MW IPP project.

Aramco Service Company, Saudi Arabia: Transmission system study for the Saudi Arabian electrical power system.

Batan – Indonesia, support for financing a nuclear plant, technical issues for the passive plant design and the transmission system expansion



COOPERATION WITH LOYOLA UNIVERSITY and Air Classic Museum.

Father Wolf V. K. Werling is interested in helping young people getting involved in cross-cultural learning, wherein they share new ways of teaching and learning using the LOHIE web platform that Air Classics Museum has in place. Father Werling who attended our November meeting is saying that Wabaunsee Community College and Wilbur Wright College have expressed a shared interest in supplementing their Architectural Design, Geographical Information Systems, and Computer-Aided Design and Drafting programs through the sketches of museum design work that LOHIE has connected with it. Mr. Bruce Cairnes, the architect from Cordogan and Clark is designing the new Aurora Air Classics Museum and Campus, and the Torun, Poland, Fort VIII Air and Space / Prisoners of War Museum Learning Center. Cordogan and Clark are volunteering their services, and all at the Air Classics Museum are volunteers. Father Werling would like to establish a tight working relationship between the FAA, Wilbur Wright College, Lewis University, Waubensee Community College, Loyola University and Nicholas Copernicus University. Father Werling graduated from Loyola University in physics; Lewis has an aviation program; Wright College has architecture design options; Waubensee has GIS options, and is next to Air Classic museum. He taught at Nicholas Copernicus University between 2002-2007; and is saying that the FAA would love to see us bring more attention to aviation careers through the channels he describes. The LOHIE program would equally work with the Chanute Air Museum in Rantoul, Illinois, and Sci-Tech Hands on Museum in Aurora. **Father Werling attended our February meeting and he is looking for volunteers to assist in the above activity.**



CONFERENCE OF POLISH ENGINEERING ASSOCIATIONS IN NORTH AMERICA will be held in Montreal, Canada, on 8-10 May, 2009. Program of the Conference is currently being prepared; everybody is invited for their ideas and recommendations. In attendance we will have Technical University professors from Poland, United States, Canada, and as in the past there will be numerous representatives of active in Europe Polish Engineering Associations. At this point four members of our organization: Dr. Plachta, Wojciak, Labedz and Niedzinski are planning to attend. Others are encouraged to attend.



THE CHICAGOLAND ENGINEERS WEEK. Engineers Week was held February 15-21, 2009. PAEA supported financially the popular Future Cities Competition and our logo was displayed



Mr. Niedzinski represented PAEA at the annual Pulaski Day celebration at Polish Museum which took place on March 2nd.



Mr. Labedz and **Mr. Niedzinski** participated in the meeting with members of WAT (Wojskowa Akademia Techniczna) which took place on February 27th at Polish Consulate. WAT is offering very interesting opportunities for study of Engineering at the Warsaw Campus. We will provide information on the subject during the meeting.