

United States Nuclear Regulatory Commission Official Hearing Exhibit	
In the Matter of: FLORIDA POWER & LIGHT COMPANY (Turkey Point Nuclear Generating, Units 3 and 4)	
	ASLBP #: 15-935-02-LA-BD01
	Docket #: 05000250 & 05000251
	Exhibit #: NRC-004-00-BD01
	Admitted: 1/4/2016
	Rejected:
Other:	Identified: 1/4/2016
	Withdrawn:
	Stricken:

NRC-004
Submitted Nov. 10, 2015

William H. Ford
Statement of Professional Qualifications

Summary of Qualifications

Mr. Ford is a Senior Physical Scientist with the U. S. Nuclear Regulatory Commission (NRC) and a professional geologist with the State of Florida. He has extensive experience in conducting geologic and hydrologic studies of both nuclear and nonnuclear facilities. He has held various technical positions in the commercial nuclear and nonnuclear industry and with the U. S. Nuclear Regulatory Commission (NRC). Mr. Ford’s experience includes groundwater radiological and nonradiological effluent releases, well drilling, well testing, water quality sampling, groundwater modeling and data analysis, geochemical studies, the collection of surface water flow data and analysis, and soil studies. Mr. Ford has conducted hydrologic studies at numerous nuclear power reactor sites, other NRC licensed facilities, and other commercial operations. Since 2011, Mr. Ford has been solely focused on geologic, groundwater, and surface water investigations at NRC licensed nuclear reactors.

Education

MS, 1974, Geology, Northern Illinois University, DeKalb, ILL
BA, 1971, Geology, University of South Florida, Tampa, Fla

Professional Organizations and Certifications

State of Florida Professional Geologist (L1405260001384).
NRC qualified technical reviewer in the Power Reactor, Uranium Recovery (Uranium Mining and Milling), and High-Level Waste programs.
National Ground Water Association Member

BACKGROUND

Mr. Ford has over 41 years of work experience in geology, groundwater and surface water. Most of his experience is in the field of groundwater. Over this period of time Mr. Ford has worked for industry and for the Nuclear Regulatory Commission (see following list of work experience).

Nuclear Regulatory Commission

2011-Present Senior Physical Scientist, Division of License Renewal (Nuclear Reactors)
2003-2011 Technical Assistant, Division of High Level Waste Repository Safety
2000-2003 Hydrogeologist, High Level Waste Branch
1995-2000 Hydrogeologist, Uranium Recovery Program
1987-1995 Hydrogeologist, High Level Waste Branch
1984 – 1987 Hydrogeologist, Division of Waste Management

Industry

1982-1984 Hydrogeologist, Applied Hydrology Associates
1980-1982 Hydrogeologist, Atlantic Richfield Company
1975-1980 Hydrogeologist and Senior Project Manager, Westinghouse
1974-1975 Geologist, Westinghouse
1971 Geologist, Woodward Clyde Consultants

WORK HISTORY

Nuclear Regulatory Commission Experience

At the NRC, Mr. Ford has successfully completed a diverse range of projects in many of the agencies program areas. Most recently he provided geology and groundwater support to environmental studies of operating nuclear power plants. He provided technical support on inspection activities at nuclear reactors. He conducted groundwater evaluations of radionuclide spills into the groundwater at active reactor sites.

As a lead groundwater expert, he conducted investigations of groundwater flow and radionuclide transport above and below the water table at a proposed high level waste repository in Nevada. His investigations included modeling to determine how the proposed repository would perform against NRC regulations and EPA standards. He gained extensive experience evaluating field data and running and testing unique groundwater flow models. Earlier in his career he was the lead groundwater hydrologist at the NRC for proposed high-level waste repositories in salt domes. He conducted groundwater reviews of environmental assessments for proposed repositories in the Richton, Cypress Creek, and Vacherie Salt Domes in Mississippi and Louisiana.

Mr Ford performed numerous groundwater, geology, and geochemistry studies of conventional uranium mills and mill tailings piles and facilities (insitu leach) that use large numbers of wells to extract uranium from aquifers. He provided technical support on agency inspections and wrote license review guidance and inspection procedures for these types of projects. He also inspected and conducted technical reviews of and wrote groundwater guidance for low level radioactive waste disposal sites

As needed, he applied his groundwater expertise to address problems encountered at various nuclear facilities inspected by the NRC. For example, he conducted a groundwater review of a Cobalt-60 medical source manufacturing facility in Cleveland, Ohio (Region III). This facility had contaminated its own building and the city sewers. His review enabled the city, State, licensee, and the NRC to agree on a decommissioning plan, which lead to cleanup of the facility.

Industry Experience

As an independent hydrologic consultant with Applied Hydrology Associates, Mr. Ford conducted groundwater, surface water, and geologic studies of coal, copper, and gold mines. He studied the effect of underground coal mining on artesian and alluvial aquifers, the potential impact on groundwater and surface water resources from a gold and silver mining operation, and evaluated the impact on the water quality from copper mine tailings.

While with Atlantic Richfield Company in Denver, Colorado, he supervised and conducted groundwater, geology, and environmental studies of underground and open pit coal mines, coal cleaning facilities, coal gasification projects, shale oil projects, metal ore facilities, oil refineries, and copper mines to comply with state and federal regulations. His projects were located throughout the continental United States and in Australia. He designed and performed well field pumping tests from wells drilled above and sometimes within coal mines. He collected surface and groundwater chemistry samples, helped to drill wells, and measured surface water flows on numerous projects. His projects also included the investigation and monitoring of hazardous waste sites in Montana and Texas.

As a Geohydrologist and Senior Environmental Coordinator for a wholly owned Westinghouse subsidiary (Wyoming Mineral Corporation), Mr Ford provided geohydrologic support to production engineering, new mine development, and environmental activities for uranium mining in-situ leach projects throughout the western United States. He also worked on conventional uranium mines, a uranium extraction facility from copper leach, and a uranium extraction facility from phosphate production in central Florida. For in-situ leach uranium solution mining sites, he actively coordinated and designed groundwater studies in the areas of field design, groundwater restoration, hydraulic testing, and monitoring. He organized drilling operations and helped to drill wells. He designed and performed well pumping and injection tests and evaluated groundwater chemistry data. As a licensing engineer, he coordinated and managed technical studies, wrote environmental reports, and obtained all state and local federal permits sufficient to build and operate a uranium mine or mill. He was responsible for obtaining licenses and conducting environmental studies of the first ever uranium extraction from copper leach solutions and the first uranium solution mine in Colorado. He successfully obtained permits for uranium production operations in Utah, Colorado, and Wyoming and numerous exploration permits and water rights in Arizona and Colorado.

As a geologist and associate scientist for Westinghouse in Pittsburgh, Pennsylvania, he conducted environmental studies in the areas of geology, hydrology, seismology, and soils on numerous and varied projects. He performed environmental studies of site preparation, plant construction, and plant operation for nuclear and fossil fueled power plants. His projects included coal mining, reclamation and sediment control projects, geothermal power plants, coal fired power plants, hydroelectric dams, conventional nuclear reactors, a breeder nuclear reactor, and a fusion powered nuclear reactor.

While employed as a teaching assistant for the Geology Department of Northern Illinois University in Illinois, he was responsible for teaching and managing all geochemistry and beginning geology courses. His thesis included groundwater, surface water, geology, and soil data as an aid to land use planning in DeKalb, Illinois. His work was used by the City of DeKalb Illinois and local engineering firms. Completion of his thesis resulted in changes to the cities building codes.

Prior to attending graduate school Mr. Ford worked for the Florida Department of Agriculture as an inspector. He monitored the application of pesticides during aerial treatment for insect pests and inspected the results of other pest eradication programs within the State.

As a geological technician, for Woodward Clyde Consultants, he worked with aerial photographs, sediment cores, and water samples to characterize damage to the Peace River in Florida, caused by a phosphate mine dam failure.

PUBLICATIONS

Ford, W., 1995, Poster Presentation on *Exploration of Dual Continuum Flow Modeling Concepts*, Evans Workshop VII, Flow and Transport Through Unsaturated Fractured Rock.

McCartin, T., Ford, W., et al, 1994, *Models For Source Term, Flow, Transport and Dose Assessment in NRC's Iterative Performance Assessment*, Phase2, Proceedings of the Fifth Annual International Conference on High Level Radioactive Waste Management.

Codell, R., Ford, W., et al, 1992, *Initial Demonstration of the NRC's Capability to Conduct a Performance Assessment for a High Level Waste Repository*, NUREG 1327.

Ford, W. 1991, *Ground Water Flow Through Unsaturated Fractured Rock Research Needs*, Proceedings of Workshop V: Flow and Transport Through Unsaturated Fractured Rock Related to High Level Radioactive Waste Disposal, NUREG/CP 0040.

Ford, W., Roffman, H., Beimborn, W., *Bacterial Removal of Sulfur From Coal*, 1976.

Ford, W., Thesis *Geology For Land Use Planning in DeKalb*, DeKalb County, ILL., 1974.