EPU Support

Introduction

Established in April 1988, Main Line Engineering provides engineering, design, licensing, and consulting services to commercial industry, with particular focus on nuclear electrical-generating units. With more than 20 years of experience in the nuclear industry, MLEA engineers are regularly involved in nuclear safety issues including recent technical support of extended power up-rate (EPU) projects and related licensing submittals.

MLEA has also provided design and engineering support to nuclear plants related to various plant modernization and improvement projects. MLEA is currently providing technical support to the Office of New Reactors of the USNRC associated with the design-certification application for the U.S. Evolutionary Power Reactor (EPR) and to the Federal Authority on Nuclear Regulation of the UAE for licensing of two new PWR reactors planned for construction in Abu Dhabi, United Arab Emirates.

History

Main Line Engineering provided technical support to the USNRC in the 1990s through support of NRC initiated safety system functional inspections at numerous nuclear facilities such as Browns Ferry, Millstone, and Perry. In addition to inspection support, Main Line personnel have direct experience in preparing technical reports for the Office of Nuclear Reactor Regulation (NRR). This work included review and evaluation of licensee submittals related to generic issues being resolved by NRR in the 1980s.

Throughout the 1990s and continuing after the year 2000, Main Line Engineering developed into a full-service engineering firm, providing mechanical, electrical, and structural engineering and design services to various industrial and commercial clients.

During this period, the Company added substantial computer-aided design (CAD) and computer-aided engineering (CAE) experience and expertise. These capabilities culminated in a series of major construction projects in the late-1990s and continuing to the present day. Piping, mechanical, structural, electrical, and controls drawings, analyses, and specifications were developed for construction of air separation plants and specialty gas plants in various locations throughout the world, including Singapore, Trinidad, Brazil, Mexico, Taiwan, and South Korea.

Recent Experience

In recent years, MLEA has provided technical services to a number of nuclear utility clients including PSEG, PP&L, NPPD, NextEra Energy, and Energy NW. Much of this work has involved extended power up-rate (EPU) project activities for Hope Creek, Susquehanna, and Point Beach.

EPU activities involved calculations and analyses, transient analyses, procedural updates, and test plan preparations. This work also involved interface and direct dialog with the USNRC staff, including formal responses to NRC requests for information. MLEA also recently completed the design and installation of an increased fuel-pool cooling modification for the Cooper Nuclear Station, in Brownsville, Nebraska.

Professional Staff

Nuclear work typically accounts for approximately 60% of the Company's total revenue. The Company employs approximately 15 full-time employees including 9 engineers and 5 CAD designers. Our engineering experience ranges from 45 years to 20 years per person, with 7 PE licenses and 2 former SRO licenses held by staff members. In spite of the severe economic downturn in late 2008, there has been no turnover of the MLEA professional staff over the past three years.