Abstract

On September 1, 2010 the US Nuclear Regulatory Commission authorized transfer of the Part 50 operating licenses for the Zion Station reactors from Exelon to EnergySolutions, for the express purpose of decommissioning the site. The project is scheduled to last ten years, with the end state being the spent fuel stored on an ISFSI, all station facilities removed to at least 3 feet below grade, and the site meeting the requirements of the NRC approve License Termination Plan. The part 50 licenses will then be amended and site returned to Exelon. All of the site assets, liabilities and licensee requirements, and responsibility for the spent fuel were included in the transaction between the companies. Exelon retained title to the land and the spent nuclear fuel.

EnergySolutions, through a wholly owned subsidiary, ZionSolutions, LLC, is now responsible for the management and safe storage all of the spent fuel on site, all NRC site license and technical specifications compliance, and the removal of all equipment, structures, and soils required to meet the release criteria established for the site. This presentation will provide an overview of the decommissioning process for the Zion Station. Topics discussed will be spent fuel preparations and dry storage; reactor vessel internals segmentation and reactor vessel segmentation; large component removal, packaging and transportation for disposal; waste management issues for low level radioactive waste and hazardous waste; and strategies for license termination surveys including the determination of site derived concentration guideline levels (DCGLs).
Bio

David M. Brown, Jr. (Dave)

Position
Vice President, D&D Construction, ZionSolutions LLC

Profile
Dave Brown is responsible for the safe and cost effective demolition of the Zion Nuclear Power Station, a two pressurized water reactor site, located in Zion Illinois. His organization manages construction activities on site, removal of all equipment, infrastructure and structures on site, facility demolition and the associated waste management and logistics activities required to support this project.

Professional History
Dave Brown has over 30 years of experience in the nuclear Industry. His extensive background includes plant operations, fuel and metals manufacturing, waste management and decontamination and demolition (D&D) projects.

He has plant operations and maintenance experience with the US Navy nuclear power program. He worked for Babcock & Wilcox at the fuel fabrication plant, Lynchburg, VA. His has managed various commercial D&D projects and Department of Energy D&D projects. In addition to his work in the United Sates, Mr. Brown worked at the Sellafield site, United Kingdom, as a Project Director in the area of plutonium facility D&D.

He was the operations manager for the D&D of the gaseous diffusion plants in Oak Ridge, Tennessee, responsible for the planning and safe performance of the removal of the uranium enrichment cascades.

He has been with EnergySolutions since 2006, when BNFL Inc. LLC was acquired. Within EnergySolutions Mr. Brown held the position of President and General Manager of Manufacturing Sciences Corporation (MSC). MSC manufactures specialty depleted uranium and other non-ferrous metal components or a wide variety of industries.

Education
Mr. Brown holds a Bachelor of Science degree in Industrial Engineering from the University of Utah.