Facility Data

Licensee (Applicant) Name:	Shaw Areva MOX Services
Site:	Mixed Oxide Fuel Fabrication Facility (MFFF) (DOE Savannah River Site) Aiken, South Carolina
Agreement State:	The State of South Carolina is an NRC Agreement State. .
Agreement State Contacts:	Aaron A. Gantt, Chief Bureau of Radiological Health Dept of Health & Environmental Control 2600 Bull Street Columbia, SC 29201 PH (803)545-4420 FX (803)545-4412 ganttaa@dhec.sc.gov Richard Haynes, P.E., Director Division of Waste Management Bureau of Land and Waste Management Dept of Health & Environmental Control 2600 Bull Street Columbia, SC 29201 PH (803)896-4070 FX (803)896-4001 haynesra@dhec.sc.gov
Managing Contractor:	Shaw AREVA MOX Services
Resident Inspectors	Melvin C. Shannon, Senior Resident Inspector Office: 803-819-5068 Cell: 404-272-2699 Email: Melvin.Shannon@nrc.gov Brannen Adkins, Resident Inspector Office: 803-819-
RII Senior Project Inspector	William B. Gloersen Business: 404-997-4443 Email: william.gloersen@nrc.gov
NMSS Project Manager	David Tiktinsky Business: 301-492-3229 Email: david.tiktinsky@nrc.gov

In May 1998, DOE issued a request for proposals to design, construct, and operate a MOX fuel fabrication facility (MFFF), and eventually supply commercial fuel to an affiliated nuclear utility, to be irradiated in its reactor. In March 1999, DOE selected a consortium consisting of Duke, Cogema, and Stone & Webster (DCS) [subsequently renamed to Shaw AREVA MOX Services (MOX Services). This partnership is to: (a) design the commercial MOX fuel; (b) design, construct, operate, and deactivate an MFFF; c) design and execute the reactor modifications necessary for use of MOX fuel; and (d) provide the architect/engineering and construction management services associated with these activities. The fuel is then intended to be irradiated

in commercial nuclear reactors.

The MFFF will be U.S. Government-owned and would only be used to dispose of surplus plutonium. Under the Strom Thurmond National Defense Authorization Act for Fiscal Year 1999, the U.S. Nuclear Regulatory Commission (NRC) is granted regulatory and licensing authority over the MFFF. Licensing the MFFF is occurring under existing regulations. Also, NRC developed a facility-specific Standard Review Plan (NUREG-1718), dated August 2000, to help review the license application (LA). It should be noted that NRC is also the regulatory authority for the commercial nuclear power reactor(s) that would irradiate the MOX fuel.

The NRC regulatory review of the MFFF is being performed in two stages. The first stage, which has already been completed, consisted of the review and evaluation of the construction authorization request (CAR). This first step required the applicant to submit a description and safety assessment, detailing the design bases of the principal structures, systems, and components of the plant, including provisions for protection against natural phenomena and the consequences of potential accidents [refer to 10 CFR 70.22(f) and 70.23(b)]. The second stage consists of a review of an LA for authority to possess and use the licensed material at the MFFF.

In February 2001, DCS submitted a CAR to construct an MFFF at DOE's Savannah River Site, near Aiken, South Carolina. NRC conducted environmental and safety reviews of the MFFF CAR and supporting documentation. The results of the staff's environmental review are discussed in NUREG-1767, A Final Environmental Impact Statement on the Construction and Operation of a Proposed Mixed Oxide Fuel Fabrication Facility at the Savannah River Site, South Carolina, issued in January 2005. In March 2005, NRC issued a construction authorization (CA) to DCS for the MFFF. The NRC staff's technical basis for issuing the CA is set forth in NUREG-1821, A Final Safety Evaluation Report on the Construction Authorization Request for the Mixed Oxide Fuel Fabrication Facility at the Savannah River Site, South Carolina, issued in March 2005.

In September 2006, DCS submitted an LA and Integrated Safety Analysis (ISA) Summary for an MFFF facility at the Savannah River Site, in South Carolina. NRC completed its Acceptance/Acknowledgment review and sent a letter to MOX Services on December 20, 2006, indicating that the application was acceptable for docketing. The LA and ISA Summary have been reviewed by the staff. A draft Safety Evaluation Report (SER) was prepared by the staff in August 2010. The Advisory Committee on Reactor Safeguards had reviewed the document and recommended that the staff issue the final SER. The staff is planning on issuing the final SER in December 2010. .

A notice for an opportunity for hearing for the MFFF was issued in March 2007. As a result of this notice, a group in interveners submitted contentions related to the licensing action. The Atomic Safety and Licensing Board ruled that the intervener has standing and one contention was admitted. The date for the hearing has not yet been determined but will occur after the issuance of the Staff's Final Safety Evaluation Report.

Nuclear construction at the facility began on August 1, 2007. The MFFF Senior Resident Inspector is overseeing the construction project on a daily basis. Region II has been performing construction inspections in accordance with established procedures for the MFFF. Assuming that a license is granted, the scheduled startup of the MFFF is in 2016. The staff is required by 10 CFR Part 70 to verify the completion of the construction of the Principal Structures, Systems and Components (PSSCs) prior to issuance of a license. This verification process will continue through 2014.

Current Issues

- Verification and validation of completion of construction of PSSCs 10 CFR 70.23(a)(8). A decision to issue a materials possession license cannot be made until NRC ensures that the requirements of 10 CFR 70.23(a) (8) are met. The staff has developed and is implementing an efficient and effective method to verify, validate, and track completion of construction of the PSSCs.

- Risk prioritization of the IROFS. Region II is working with NMSS to develop a risk-prioritization methodology to support the inspection program. The current estimate of the number of IROFS at the MFFF is ~12,000.

OVERSITE

- Consistent risk awareness and determination of safety significance of identified construction and quality assurance deficiencies and violations.

- Smooth transition from construction inspection activities to pre-operational and operational inspection activities (long-term).

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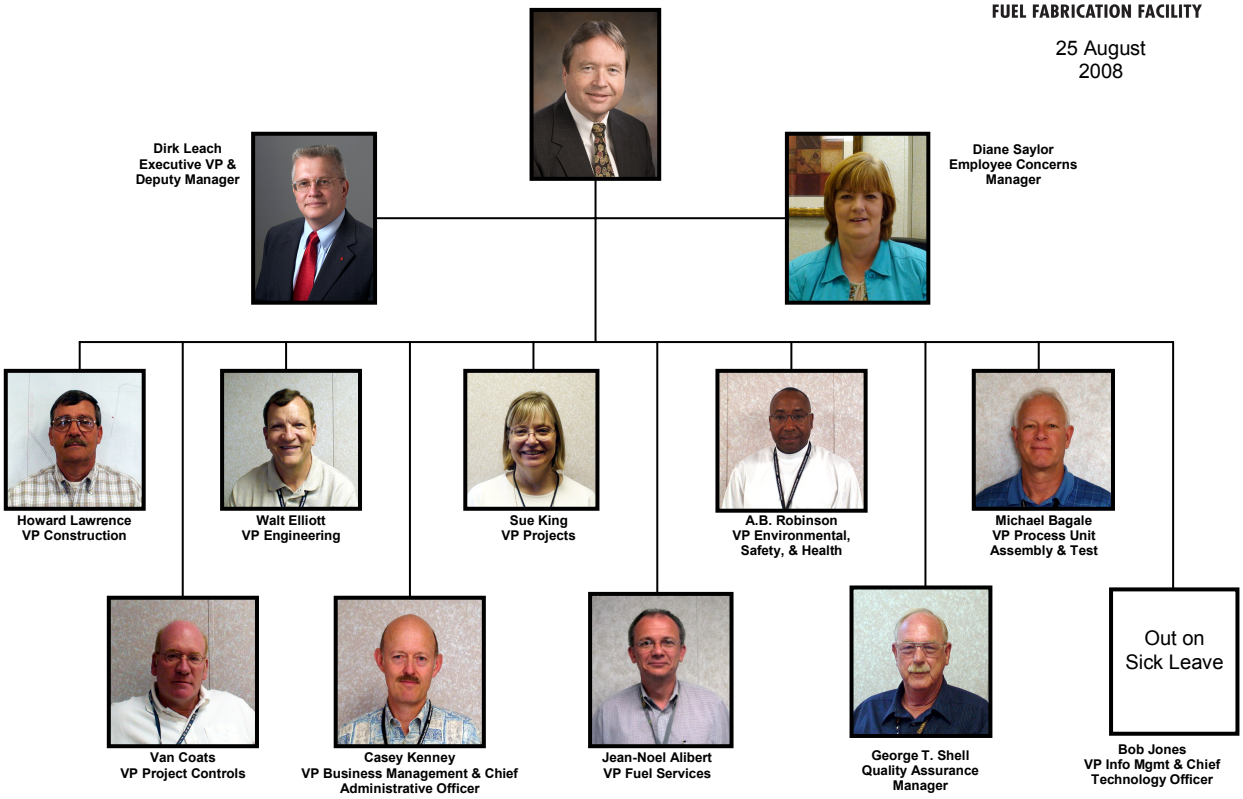
Facility Organization

Shaw AREVA MOX SERVICES, LLC

MOX FUEL FABRICATION FACILITY

25 August 2008



Biographical Information for Principal Managers

Tab 8

Walter Elliott, Vice President, Engineering
Shaw AREVA MOX Services, LLC

Professional Qualifications

Served 31 years with Tennessee Valley Authority (TVA). Management positions in TVA's Fossil Power Group included Vice President of Fossil Operations East, Vice President Engineering/Technical Services, and Vice President Fuel Supply/Engineering Services. General Manager of Electric Systems Projects in the Transmission Supply Group; Engineering and Materials Manager of the Watts Bar Nuclear Station; and Lead Mechanical/Nuclear/Materials Manager, Assistant Project Engineer, and Program Manager of Sequoyah Nuclear Station. Managed the engineering and design for the completion of construction and commercial licensing of Watts Bar Nuclear Unit 1. Directed all activities for 31 operating units at six fossil power plants totaling approximately 6900 megawatts.

Education

Tennessee Technological University, Cookeville, Tennessee - 1971-1972
M.S. in Mechanical Engineering

Tennessee Technological University, Cookeville, Tennessee - 1967-1971
B.S. in Mechanical Engineering
Honorary Societies: Pi Tau Sigma and Tau Beta Pi

Registrations/Certifications

Registered Professional Engineer, Tennessee

Experience and Background

Consultant/Contract Work, 2004-2006

Tennessee Valley Authority – 1973 - 2004

Fossil Power Group – 1999 - 2004
Vice President, Fossil Operations East
Vice President, Engineering/Technical Services
Vice President, Fuel Supply/Engineering Services
Transmission/Power Supply Group – 1996 - 1999
General Manager, Electric System Projects
Watts Bar Nuclear Station – 1990 - 1996
Engineering & Materials Manager
Engineering & Modifications Manager
Engineering Manager
Sequoyah Nuclear Station – 1985 - 1990
Lead Mechanical/Nuclear/Materials Manager.
Assistant Project Engineer
Program Manager
Supervisor – 1983 - 1985

Mechanical Engineer – 1973 - 1983