1.4 Identification of Agents and Contractors

The information in this section of the reference ABWR DCD, as modified by the STP Nuclear Operating Company Application to Amend the Design Certification rule for the U.S. Advanced Boiling Water Reactor (ABWR), "ABWR STP Aircraft Impact Assessment (AIA) Amendment Revision 3," dated September 23, 2010 is incorporated by reference, with the following site-specific supplement.

NINA is the licensee responsible for design and construction of STP 3 & 4. STPNOC is the licensee responsible for operation and maintenance of STP 3 & 4. The design and construction of STP 3 & 4 will be completed by a consortium of Toshiba America Nuclear Energy (Toshiba) and Stone & Webster, a wholly owned subsidiary of Shaw Group Incorporated, acting in conjunction with subcontractors including Westinghouse and Sargent & Lundy. Throughout this document the Consortium participant for the Shaw Group Inc. will be referred to as Shaw. Toshiba and Shaw will have overall responsibility for design and configuration control. Sargent & Lundy will provide architect/engineer services. Westinghouse will provide engineering services, including design of instrumentation and controls.

The measures taken to address the potential for foreign ownership, domination control or influence of the licensees are addressed in the Negation Action Plan provided as Appendix 1D.

1.4.4 Identification of Agents and Contractors - STP 3 & 4

NINA executed a contract for Engineering, Procurement, and Construction (EPC) of the facilities with a Consortium comprised of Toshiba and Stone & Webster, a wholly owned subsidiary of Shaw Group Incorporated. The Consortium will act as the ABWR provider and architect-engineer for STP Units 3 and 4. NINA, as the constructor of STP Units 3 and 4, has delegated responsibility for physical construction activities to the Consortium.

The design and construction of STP 3 & 4 will be completed by Toshiba and Shaw acting in conjunction with subcontractors including Westinghouse and Sargent & Lundy. Toshiba and Shaw will have overall responsiblity for design and configuration control. Sargent & Lundy will provide architect/engineer services for the Nuclear Island. Westinghouse will provide engineering services, including design of instrumentation and controls.

Toshiba is responsible for the overall plant design of the Nuclear Island, procurement of primary NSSS equipment and power block major components including the Turbine Generator, and plant training simulator. Shaw is responsible for site development, overall plant design of the Turbine Island, construction, site specific design related work, secondary equipment procurement, module fabrication, and supply of bulk materials and commodities. Toshiba and Shaw are jointly responsible for testing and startup.

1.4.4.1 Nuclear Innovation North America LLC

NINA was formed in 2008. Its focus is to market and promote ABWR nuclear technology, and to develop and construct ABWR nuclear power generation facilities in the U.S. NINA assumed responsibility for the design and construction of STP 3 & 4 in 2011. It organized itself for this purpose by transitioning the previously existing STPNOC organization responsible for the development of STP 3 & 4 from STPNOC to NINA. This transition included the programs, processes and procedures developed by STPNOC for STP 3 & 4. NINA's STP 3 & 4 organization is focused on the design and construction of STP 3 & 4 and coordination with STPNOC for the operation of STP 3 & 4. After the 10CFR52.103(g) finding or authorization for interim operation pursuant to 10CFR52.103(c) is issued, NINA will provide services to STPNOC to support completion of construction.

1.4.4.2 STP Nuclear Operating Company

STPNOC is the operator and license holder of STP 1 & 2 and will be the operator and license holder for STP 3 & 4 upon issuance of the 52.103(g) finding or authorization for interim operation pursuant to 10 CFR 52.103(c). During the construction period STPNOC will provide services to NINA that support the implementation of the Operational Programs and system operations during the test program.

1.4.4.3 Toshiba Power Systems Company

Toshiba Power Systems Company is responsible for the Engineering, Procurement, and Construction (EPC) of STP Units 3 & 4. In this capacity Toshiba has overall project management responsibility for the design and construction of the facility, including support of the Combined License Application (COLA), in conjunction with the subcontractors described below.

Toshiba has extensive experience in the design, construction, and commissioning of the Advanced Boiling Water Reactor (ABWR) worldwide, having participated in the development of the common engineering documents, design of the ABWR systems, and construction of three ABWRs in Japan. The first ABWR plant, Kashiwazaki-Kariwa Unit No. 6, commenced commercial operation in 1996, followed by Unit No.7 in 1997, and Hamaoka Unit No. 5 in January 2005.

1.4.4.4 Shaw Group Inc.

Shaw Group Incorporated, as part of the Consortium, is responsible for the Engineering, Procurement, and Construction (EPC) of STP Units 3 & 4. In this capacity Shaw with Toshiba has overall project management responsibility for the design and construction of the facility, including support of the Combined License Application (COLA), in conjunction with the subcontractors described below.

Shaw is a Fortune 500 company which has been an active participant in the nuclear industry for nearly 60 years, from providing engineering and design services for Shippingport, the nation’s first commercial nuclear power plant, to the restart of Tennessee Valley Authority’s Browns Ferry Unit 1, which at the time was the largest nuclear construction project in the western hemisphere. Shaw continues to prove its

leadership role in the nuclear industry by being part of the AP1000 Consortium. Shaw is part of a vertically integrated company, Shaw Group, Inc., which has nearly 180 offices worldwide and over 28,000 employees, of which approximately 3,100 are nuclear professionals offering nuclear services on four continents.

1.4.4.5 Westinghouse Electric Corporation

Westinghouse Electric Corporation (WEC) has significant experience in the design, construction, inspection and maintenance of domestic and international nuclear power plants.

1.4.4.6 Sargent & Lundy

Sargent & Lundy provides engineering services for STP 3 & 4, specifically the design of the Nuclear Island, including the Reactor Building, Control Building, Radwaste Building and Ultimate Heat Sink.

For more than 100 years Sargent & Lundy has provided comprehensive consulting, engineering, design, and analysis for electric power generation and power delivery projects worldwide. Sargent & Lundy has a large, highly experienced staff solely dedicated to the energy business.

1.4.4.7 Other Contractors

Several specialized consultants assisted in developing the COLA.

1.4.4.7.1 Tetra Tech NUS, Inc.

Tetra Tech NUS, Inc. performed data collection and analysis, and prepared sections of the Final Safety Analysis Report (FSAR) and Environmental Report (ER), including socioeconomics/demographics, ecology and ecological impacts of construction and operation, land and water use impacts of construction and operation, transmission system impacts of construction and operation, radiological impacts of operation, uranium fuel cycle and transportation of radioactive materials impacts, and environmental impacts of postulated accidents.

Tetra Tech NUS, Inc. has prepared sections of the FSAR and ER for several Early Site Permit (ESP) and COLAs, including the North Anna and Vogtle ESP applications, and the V.C. Summer and Calvert Cliffs COLAs. In addition, Tetra Tech NUS has prepared ERs for license renewal applications for more than 30 nuclear plants.

1.4.4.7.2 MACTEC Engineering and Consulting, Inc.

MACTEC Engineering and Consulting, Inc. (MACTEC) performed geotechnical field investigations and laboratory testing in support of FSAR Section 2.5, Geology, Seismology, and Geotechnical Engineering. That effort included performing standard penetration tests; obtaining core samples and rock cores; performing cone penetrometer tests, cross-hole seismic tests, and laboratory tests of soil and rock samples; installing ground water observation wells; and preparing a data report.

MACTEC has implemented subsurface site geotechnical investigations for several projects. These include the Vogtle and North Anna ESP applications, and the V.C. Summer, North Anna, and Vogtle COLAs. MACTEC is also involved with other ESP applications and COLAs presently being developed.

1.4.4.7.3 William Lettis & Associates, Inc.

William Lettis & Associates, Inc. (WLA) performed geologic mapping and the characterization of seismic sources in support of FSAR Section 2.5, including literature review, geologic field reconnaissance, review and evaluation of existing seismic source characterization models, identification and characterization of any new or different sources, and preparation of the related FSAR sections.

WLA has implemented geologic reconnaissance investigations and research to support ESP applications and COLAs for several projects. These include the Vogtle and North Anna ESP applications, and the Calvert Cliffs and V.C. Summer COLAs. WLA is also involved with other ESP applications and COLAs presently being developed.

1.4.4.7.4 Risk Engineering, Inc.

Risk Engineering, Inc. (REI) performed probabilistic seismic hazard assessments and related sensitivity analyses in support of FSAR Section 2.5. These assignments included sensitivity analyses of seismic source parameters and updated ground motion attenuation relationships, development of updated safe shutdown earthquake ground motion values, and preparation of the related FSAR sections.

REI has performed probabilistic seismic hazard analyses to support ESP applications and COLAs for several projects. These include the Vogtle and North Anna ESP applications, and the Calvert Cliffs, V.C. Summer, and North Anna COLAs. REI is also involved with other ESP applications and COLAs presently being developed.

1.4.4.7.5 Bechtel Corporation

Bechtel supports project licensing primarily with regard to the ER and site characterization. Bechtel, headquartered in San Francisco, is the nation’s largest power contractor. Bechtel has a history of supporting the nuclear power industry, beginning with the construction in 1950 of the EBR-1 reactor. Since then, Bechtel has engineered and constructed more than 60,000 MWe of nuclear power capacity worldwide. Currently, Bechtel has 40,000 employees and has completed 22,000 projects in 140 different countries around the globe.