

RIIA

**Statement of Work
Contract No. NRC-08-97-302
Task Order 8 - Revision 1**

"Technical Assistance for Temelin Draft Safety Evaluation Report (SER) Review"

A. Background

Since the early 1990's, the US NRC has had a Bilateral Agreement for Technical Cooperation and Training Assistance with the Czech Republic State Office for Nuclear Safety (SUJB). The Temelin NPP under construction in the Czech Republic since the early 1990's employs a Russian designed VVER-1000. The Westinghouse Electric Corporation has been contracted to supply the reactor fuel, instrumentation and control systems for the plant based on the Eagle-21 I&C Product Family, and to submit relevant sections of the safety analysis report according to US NRC Regulatory Guide 1.70 for review by SUJB. In 1994 a formal US NRC Licensing Methodology technology transfer program was initiated to assist SUJB with their first time review of the Westinghouse nuclear fuel supply and the Eagle 21 I&C upgrade to the reactor control and protection systems at the Temelin NPP. Under this program, USNRC, with national laboratory and contractor support, transferred the US Licensing Review Methodology described in US NRC Standard Review Plan (NUREG-0800) to SUJB in the 1994-1997 time frame.

Based on this technology transfer program, SUJB developed a licensing issues data base, issued a number of Requests for Additional Information, and proceeded to resolve open technical questions. SUJB in 1998-1999 has prepared a draft Safety Evaluation Report (SER) and has recently requested NRC support in peer review of this document. The NRC requires contractor support to assist with the formal peer review of this SER and the issuance of a detailed peer review report on the relevant Temelin SER sections.

B. Objectives

The objective of this Task Order is to coordinate and assist NRC staff with a peer review of the Temelin SER sections dealing with: reactor core and nuclear fuel, Instrumentation and Control (I&C), and Design Basis Event Accident Analysis (DBA). The task completion will be documented with the issuance of a formal Temelin SER peer review report (to be jointly issued with the Office of Nuclear Reactor Regulation (NRR)).

C. Staff Qualifications

Contractor staff assigned to this effort must possess expert knowledge and experience in performing PSA and accident analysis on LWRs, with an emphasis on VVER 1000 reactors.

D. Work Requirements

The contractor shall provide expert technical assistance to OIP and NRR staff in the peer review of selected parts of the Temelin SER.

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Subtask 1

Coordinate with NRR to acquire and review a copy of the final version of the Temelin NPP Licensing Issues Data Base (in particular, the relevant sections associated with Nuclear Fuel, I&C, DBA Analysis). Go through these three sections to confirm all the original questions have been answered and that the logic employed by SUJB is sound.

Deliverable: Letter report outline the findings of the review. Due 30 days after the initiation of the subtask.

Estimated Level of Effort: 1-2 man-weeks.

Subtask 2

Evaluate the Draft Temelin SER Sections (to be provided by SUJB to USNRC in English) against the technical issues contained in the Licensing Issues Data Base.

The contractor shall evaluate the degree and thoroughness that the licensing issues characterized in the Licensing Issues Data Base have been resolved and closed out. This evaluation shall be performed in accordance with the NRC Standard Review Plan processes, as have been adapted and applied to the Temelin NPP.

The contractor shall provide to the NRC a draft peer review report. Once approved by NRC the contractor will transmit the final report to SUJB.

Deliverable: Draft Peer Review Report. Due within 120 days after receipt of the Licensing Issues Data Base.

Deliverable: Final Peer Review Report. Due within 15 days after receipt of comments from NRC on Draft Peer Review Report.

Estimated Level of Effort: 12-14 man-weeks.

Subtask 3

Meet with SUJB Staff at their offices in Prague. The contractor, along with NRR staff, shall hold a one week review meeting at the SUJB's offices to resolve any peer review comments directly with SUJB staff.

Estimated Level of Effort: 2-3 man-weeks.

Subtask 4

Related Assistance: The Contractor shall provide up to 12 staff months of additional assistance related to subtasks 1-3. The contractor may perform periodic briefings for U.S. Embassy staff, review and comment on reports and analysis provided by NRC, EU, or the U.S. Department of State related to the Temelin facility, and possibly perform presentations for the international community.

All related assistance will be designated by the NRC PO in writing as it is identified or when required. A summary of the related assistance performed shall be included in the monthly report required under this contract.

Deliverables: In addition to the deliverables noted above, the contractor shall provide the monthly business status report as required, in accordance with the base contract terms and conditions.