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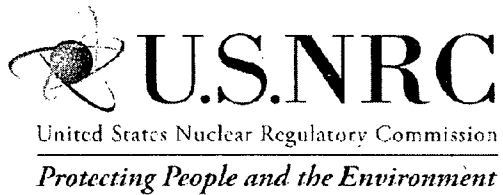
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*Protecting People and the Environment*

**AREVA**  
**Software Program Manual**  
**for**  
**Teleperm™ XS Safety Systems**  
**ANP-10272**

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## **Software Program Manual**

# **NRC Current Status of Issues Related to the AREVA Software Program Manual (SPM) Topical Report**

## Summary Listing by Major Concerns:

- 1) Original SPACE Tool Approval
- 2) Scope of AREVA NP Software Development Procedures
- 3) Specific changes to SPM
- 4) Scope of the SPM
- 5) Conformance to Guidance
- 6) Exception to IEEE 1012
- 7) Exception to IEEE 828
- 8) Justification of SIVAT Quality
- 9) Other Issues

# 1. Original SPACE Tool Approval

- Not Safety Related
- Approved as part of overall life cycle process
- Acceptable V&V of application software was credited; not the capability of SPACE
- Description of SPACE in the SPM needs to be addressed

## **2. Scope of AREVA NP Software Development Procedures**

- Clarify in the SPM, to what systems/processes the AREVA NP GmbH software development procedures (described in the Teleperm XS topical report) and software development procedures for the SPM apply.

### 3. Specific Changes to SPM

- The NRC staff has received numerous requests for additional information responses
  - Many responses modify the SPM
  - Some response may now conflict with earlier responses
- Due to the extent of changes, it is necessary for the NRC staff to have a revision of the SPM on the docket to facilitate further review of the topical report

## **4. Scope of the SPM**

- What portions of the SPM are mandatory vs what portions are optional (RAI 66)
- Introduction section is confusing by identifying only five plans in the SPM while Table 1-1 correlates plans identified in Branch Technical Position 7-14

# 5. Conformance to NRC Guidance

- What does AREVA mean by conforms to guidance?
  - Is this the same as “100%” compliance?
  - Does this mean “meets every criteria?”
  - RAI 72 specifically asked: Yes or No
  - The SPM should clearly delineate full conformance to guidance and where alternatives are proposed (including basis for alternatives)



# 6. Exceptions to IEEE 1012

- V&V Organization should be (vs Technical manager and Quality Assurance Organization) responsible for software V&V (RAI 71)
  - V&V manager determines scope of V&V (vs. Technical Manager and Quality Assurance)
  - AREVA needs to adequately justify why they propose that component verification and validation testing is not mandatory

# 7. Exception to IEEE 828

- No Configuration Management Organization
  - The SPM should provide for a configuration management organization or provide information as to the reassignment of each configuration management task and the basis for why the reassignments are acceptable

# 8. Justification of SIVAT Quality

- SIVAT Lifecycle Documentation
  - Description of development process and verification and validation (V&V) applied to SIVAT development
  - Acceptable demonstration of software quality processes
- SIVAT Specification
  - Description of how SIVAT works; how it credited in the overall application software development process

### 8. Justification of SIVAT Quality (cont.)

- Configuration management of SIVAT
  - Description of SIVAT development and configuration control
  - Version information for baseline
- Other software tools such as **cmp\_code** and **rediff**
  - Identify if credited in software development process
  - If credited, similar demonstration of quality as needed for SIVAT

## 9. Other Issues

- Preparation of Test Plan – specify V&V group responsibility
- Clarification of who can close open items
- Quality Assurance Manager manages the Software Quality Assurance Plan (RAI 76)
- Software Integration Plan (RAI 41)

## Path Forward

- NRC to provide a status letter outlining current SPM issues
- AREVA NP to provide a revision of the SPM on the docket encompassing proposed changes and addressing current issues
- AREVA NP to provide justification of SIVAT quality based on schedule preference