

August 14, 2009 NRC:09:088

Document Control Desk U.S. Nuclear Regulatory Commission Washington, D.C. 20555-0001

AREVA NP Revision 1 of the ANP-10272, "Software Program Manual For TELEPERM XS Safety Systems Topical Report" (TAC No. MD3971)

- Ref. 1: Letter, Ronnie L. Gardner (AREVA NP Inc.) to Document Control Desk (NRC), "Request for Review and Approval of ANP-10272, 'Software Program Manual for TELEPERM XS<sup>™</sup> Safety Systems Topical Report'," NRC:06:061, December 21, 2006.
- Ref. 2: Letter, Ronnie L. Gardner (AREVA NP Inc.) to Document Control Desk (NRC), "AREVA NP Response to Review Status of the ANP-10272, 'Software Program Manual For TELEPERM XS Safety Systems Topical Report' (TAC No. MD3971)," NRC:09:035, April 7, 2009.

AREVA NP Inc. (AREVA NP) requested the NRC's review and approval of ANP-10272 Revision 0, "Software Program Manual for TELEPERM XS™ Safety Systems Topical Report," in Reference 1. AREVA NP provided a draft Revision 1 of the Software Program Manual Topical Report by in Reference 2 and requested a meeting with NRC to obtain final clarification and to agree upon the proposed revisions to the Software Program Manual Topical Report. A meeting was held on June 16, 2009 and comments were received from the NRC-NRR participants. NRC-NRO did not provide any comments during the meeting.

AREVA NP agreed to submit Revision 1 of the Software Program Manual Topical Report after a meeting with NRC to address comments. Revision 1 of the Software Program Manual Topical Report is included as an enclosure to this letter.

The following changes were made to the TELEPERM XS Software Program Manual:

- Incorporated changes associated with the Requests for Additional Information (RAI) responses and other correspondence on this matter.
- Removed explicit references to the TELEPERM XS Simulation Validation Test Tool (SIVAT) and replaced with more general language allowing the future use of an NRC approved simulation test tool,
- Incorporated changes based on the comments from the June 16, 2009 meeting.
- Added new guidance patterned after 10 CFR 50.59 to address future TELEPERM XS platform changes for use in U.S. Projects,
- Added new sections and reformatted material to alignment with the current version of Branch Technical Position 7-14, and
- Incorporated new material based on the lessons learned during the review of the Oconee digital protection system license amendment request.



A cross reference between prior request for additional information responses and the applicable Software Program Manual section has been provided as an attachment to this letter to facilitate NRC review.

AREVA NP is also providing two documents to support the NRC review of Revision 1 of the Software Program Manual Topical Report:

- AREVA NP Document 51-9047411-001, "Alignment of the TXS Software Program Manual Topical Report with NRC Branch Technical Position 7-14"
- AREVA NP Document 51-9118047-000, "TELEPERM XS Cyber Security Features"

AREVA NP considers the material contained in the topical report to be proprietary. As required by 10 CFR 2.390(b), an affidavit is enclosed to support the withholding of the information from public disclosure. Nonproprietary versions of these documents are not provided based on the guidance in Information Notice 2009-07.

AREVA NP Document 51-9118047-000 also contains security-related sensitive information that should be withheld from public disclosure in accordance with 10 CFR 2.390. The top of each page of the document is marked "Security-Related Information -Withhold Under 10 CFR 2.390" in accordance with the guidance in Regulatory Information Summary 2605-34.

AREVA NP requests that the NRC issue a Safety Evaluation Report that approves ANP-10272 Revision 1, "Software Program Manual for TELEPERM XS™ Safety Systems Topical Report." AREVA NP intends to use the TELEPERM XS Software Program Manual to support the development of TELEPERM XS Application Software for projects in the U.S., including the EPR. AREVA NP requests that the NRC complete its review of the enclosed report and issue the SER by June 2010.

AREVA NP is prepared to support another meeting or an on-site audit at the earliest convenience of the NRC to resolve any remaining issued necessary to obtain approval of the Software Program Manual Topical Report.

If you have any questions related to this submittal, please contact Ms. Sandra M. Sloan, Regulatory Affairs Manager for New Plants. She may be reached by telephone at 434-832-2369 or by e-mail at <a href="mailto:sandra.sloan@areva.com">sandra.sloan@areva.com</a>.

Sincerely,

Ronnie L. Gardner, Manager Corporate Regulatory Affairs

AREVA NP Inc.

**Enclosures** 

cc: G. Tesfaye Docket 52-020

## AREVA NP RESPONSE TO REQUESTS FOR ADDITIONAL INFORMATION CROSS REFERENCE TO ANP-10272, "SOFTWARE PROGRAM MANUAL (SPM) FOR THE TELEPERM XS SAFETY SYSTEMS" TOPICAL REPORT, REVISION 1

- Ref. 1: Letter, Getachew Tesfaye (NRC) to Ronnie L. Gardner (AREVA NP Inc.), "Request for Additional Information Regarding ANP-10272, 'Software Program Manual for TELEPERM XS™ Safety Systems Topical Report' (TAC No. MD3971)," April 27, 2007.
- Ref. 2: Letter, Ronnie L. Gardner (AREVA NP Inc.) to Document Control Desk (NRC), "Request for Additional Information Regarding ANP-10272, 'Software Program Manual for TELEPERM XS<sup>TM</sup> Safety Systems Topical Report' (TAC No. MD3971)," NRC:07:020, May 22, 2007.

RAI 1	See Software Program Manual Revision 1 Appendix B	
RAI 2	See Software Program Manual Revision 1 Sections 3.1.2 and 3.1.3.	
RAI 3	See Software Program Manual Revision 1 Sections 3.1.2, 3.1.3, and 4	
RAI 4	See Software Program Manual Revision 1 Sections 13.1 and 13.2.	
RAI 5	See Software Program Manual Revision 1 Sections 4 and 11.9	
RAI 6	See AREVA NP Document 51-9047411-001, "Alignment of the TXS Software Program Manual Topical Report with NRC Branch Technical Position 7-14"	
RAI 7	See Software Program Manual Revision 1 Sections 3.1.2, 3.1.3, and 4	
RAI 8	See Software Program Manual Revision 1 Sections 3.1.2, 3.1.3, and 4	
RAI 9	See Software Program Manual Revision 1 Section 3.6	
RAI 10	See Software Program Manual Revision 1 Section 10.3.6	
RAI 11	See Software Program Manual Revision 1 Section 3.6	
RAI 12	See Software Program Manual Revision 1 Section 4.5.5	
RAI 13	See Software Program Manual Revision 1 Section 3.4	
RAI 14	Clarification response (not incorporated)	
RAI 15	See Software Program Manual Revision 1 Section 11.12	
RAI 16	See Software Program Manual Revision 1 Section 3.4	
RAI 17	See Software Program Manual Revision 1 Sections 3.5.2, 5.9.2, and 11.12	
RAI 18	Clarification response (not incorporated)	
RAI 19	See Software Program Manual Revision 1 Section 2.0	
RAI 20	See Software Program Manual Revision 1 Section 10.0	
RAI 21	Clarification response (not incorporated)	
RAI 22	See Software Program Manual Revision 1 Section 10.0	
RAI 23	See Software Program Manual Revision 1 Section 10.3.6	

RAI 24	See Software Program Manual Revision 1 Section 10.3.6	
RAI 25	Clarification response (not incorporated)	
RAI 26	Clarification response (not incorporated)	
RAI 27	See Software Program Manual Revision 1 Sections 8.0 and 12.4.5	
RAI 28	See Software Program Manual Revision 1 Section 12.4.5 Also see TELEPERM XS Topical Report Sections 2.6 and 2.9	

- Ref. 3: Letter, Getachew Tesfaye (NRC) to Ronnie L. Gardner (AREVA NP Inc.), "Second Request for Additional Information Regarding ANP-10272, 'Software Program Manual for TELEPERM XS<sup>TM</sup> Safety Systems Topical Report' (TAC No. MD3971)," June 22, 2007.
- Ref. 4: Letter, Ronnie L. Gardner (AREVA NP Inc.) to Document Control Desk (NRC), "Response to Second Request for Additional Information Regarding ANP-10272, 'Software Program Manual for TELEPERM XS<sup>™</sup> Safety Systems Topical Report' (TAC No. MD3971)," NRC:07:029, July 19, 2007.

RAI 29	Clarification response (not incorporated)	
RAI 30	See Software Program Manual Revision 1 Section 4.1	
RAI 31	See Software Program Manual Revision 1 Sections 3.1 and 5.0	
RAI 32	Clarification response (not incorporated)	
RAI 33	See Software Program Manual Revision 1 Section 3.1.5	
RAI 34	Al 34 Relocated to ANP-10303P, "SIVAT: TELEPERM XS™ Simulation Valida Test Tool Topical Report"	
	Software Program Manual Revision 1 Sections 11.0 and 13.0 do not require use of a simulation test tool but will allow use of a NRC approved simulation test tool	
RAI 35	Relocated to ANP-10303P, "SIVAT: TELEPERM XS™ Simulation Validation Test Tool Topical Report"	
RAI 36	See Software Program Manual Revision 1 Sections 3.1.5 and 4.6 and AREVA NP Document 51-9118047-000, "TELEPERM XS Cyber Security Features"	
RAI 37	See Software Program Manual Revision 1 Sections 3.3.2 and 4.2	
RAI 38	Clarification response (not incorporated)	

- Ref. 5: Letter, Getachew Tesfaye (NRC) to Ronnie L. Gardner (AREVA NP Inc.), "Third Request for Additional Information Regarding ANP-10272, 'Software Program Manual for TELEPERM XS™ Safety Systems Topical Report' (TAC No. MD3971)," August 31, 2007.
- Ref. 6: Letter, Ronnie L: Gardner (AREVA NP Inc.) to Document Control Desk (NRC), "Response to Third Request for Additional Information Regarding ANP-10272, 'Software Program Manual for TELEPERM XS<sup>™</sup> Safety Systems Topical Report (TAC No. MD3971)'," NRC:07:056, October 26, 2007.

RAI 39 See Software Program Manual Revision 1 Section 4.6

RAI 40	See Software Program Manual Revision 1 Sections 4.5.1		
RAI 41	See Software Program Manual Revision 1 Section 6.0		
RAI 42	See Software Program Manual Revision 1 Section 7.0		
RAI 43	See Software Program Manual Revision 1 Section 8.0		
RAI 44	See Software Program Manual Revision 1 Section 4.3 and Appendix A		
RAI 45	See Software Program Manual Revision 1 Section 4.3 and Appendix A		
RAI 46	See Software Program Manual Revision 1 Section 4.4		
RAI 47	Clarification (not incorporated) and see Software Program Manual Revision 1 Section 9.0		
RAI 48	Clarification response (not incorporated)		
RAI 49	Clarification (not incorporated) and see Software Program Manual Revision 1 Section 1.0		
RAI 50	Clarification (not incorporated) and see Software Program Manual Revision 1 Section 9.0		
RAI 51	See Software Program Manual Revision 1 Appendix B and SIVAT relocated to ANP-10303P, "SIVAT: TELEPERM XS™ Simulation Validation Test Tool Topical Report"		
RAI 52	Relocated to ANP-10303P, "SIVAT: TELEPERM XS™ Simulation Validation Test Tool Topical Report"		
RAI 53	See Software Program Manual Revision 1 Appendix B		
RAI 54	See Software Program Manual Revision 1 Appendix B		
RAI 55	Relocated to ANP-10303P, "SIVAT: TELEPERM XS™ Simulation Validation Test Tool Topical Report"		
RAI 56	See Software Program Manual Revision 1 Appendix B		
RAI 57	See Software Program Manual Revision 1 Appendix B		
RAI 58	See Software Program Manual Revision 1 Appendix B		
RAI 59	Relocated to ANP-10303P, "SIVAT: TELEPERM XS™ Simulation Validation Test Tool Topical Report"		
RAI 60	See Software Program Manual Revision 1 Sections 3.1.2 and 3.1.3		
RAI 61	Clarification (not incorporated) and see Software Program Manual Revision 1 Sections 4.5.6 and 5.4.3		
RAI 62	Clarification (not incorporated) and see Software Program Manual Revision 1 Sections 4.5.4 and 5.4.1		
RAI 63	Clarification (not incorporated) and see Software Program Manual Revision 1 Sections 4.5.5 and 5.4.3		
RAI 64	Clarification (not incorporated) and see Software Program Manual Revision 1 Section 4.0		
RAI 65	Clarification response (not incorporated)		

RAI 66	Clarification (not incorporated) and see Software Program Manual Revision 1 Section 3.6	
RAI 67	Clarification (not incorporated) and see Software Program Manual Revision 1 Section 3.6	
RAI 68	Clarification (not incorporated) and see Software Program Manual Revision 1 Section 3.6	
RAI 69	Clarification (not incorporated) and see Software Program Manual Revision 1 Sections 3.1.5 and 4.6	
RAI 70	Clarification (not incorporated) and see Software Program Manual Revision 1 Section 3.1.5	
up Actio Manual	Ronnie L. Gardner (AREVA NP Inc.) to Document Control Desk (NRC), "Followns from December 19, 2007, NRC Audit of ANP-10272, 'Software Program for TELEPERM XS <sup>™</sup> Safety Systems Topical Report,' Program Implementation of MD3971)," NRC:08:008, January 24, 2008.	
RAI 1	See Software Program Manual Revision 1 Appendix B	
RAI 2	See Software Program Manual Revision 1 Sections 3.1.2, 3.1.3, 3.1.4, 3.1.5, and 3.1.6	
RAI 36	See Software Program Manual Revision 1 Sections 3.1.5 and 4.6 and AREVA NP Document 51-9118047-000, "TELEPERM XS Cyber Security Features"	
RAI 51	See Software Program Manual Revision 1 Appendix B	
RAI 53	Clarification (not incorporated) and see Software Program Manual Revision 1 Appendix B	
RAI 54	See Software Program Manual Revision 1 Appendix B	
RAI 56	See Software Program Manual Revision 1 Appendix B	
RAI 57	See Software Program Manual Revision 1 Appendix B	
RAI 58	See Software Program Manual Revision 1 Appendix B	
RAI 60	See Software Program Manual Revision 1 Sections 3.1.2 and 3.1.3	
INC F 'Softwar	Getachew Tesfaye (NRC) to Ronnie L. Gardner (AREVA NP Inc.), "AREVA NP, ourth Request For Additional Information (RAI) Regarding ANP-10272, e Program Manual for TELEPERM XS™ Safety Systems Topical Report [TR]' D. MD3971)," May 7, 2008.	
"Respor 'Softwar	Ronnie L. Gardner (AREVA NP Inc.) to Document Control Desk (NRC), ase to Fourth Request for Additional Information Regarding ANP-10272, be Program Manual for TELEPERM XS <sup>TM</sup> Safety Systems Topical Report D. MD3971)'," NRC:08:034, May 29, 2008.	
RAI 71	See Software Program Manual Revision 1 Sections 11.0 and 13.0 and SIVAT relocated to ANP-10303P, "SIVAT: TELEPERM XS™ Simulation Validation Test Tool Topical Report"	
RAI 72	See Software Program Manual Revision 1 Section 3.6	
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RAI 73	See ANP-10303P, "SIVAT: TELEPERM XS™ Simulation Validation Test Tool Topical Report"		
RAI 74	See ANP-10303P, "SIVAT: TELEPERM XS™ Simulation Validation Test Tool Topical Report"		
RAI 75	See ANP-10303P, "SIVAT: TELEPERM XS™ Simulation Validation Test Tool Topical Report"		
RAI 76	See Software Program Manual Revision 1 Sections 3.3.1 and 5.2		
RAI 77	See Software Program Manual Revision 1 Sections 3.3.9, 3.5.2, and 11.8		
RAI 78	See Software Program Manual Revision 1 Sections 6.0, 11.9, and 13.0 and See ANP-10303P, "SIVAT: TELEPERM XS™ Simulation Validation Test Tool Topical Report"		
RAI 79	Clarification (not incorporated) and see Software Program Manual Revision 1 Sections 2.0 and 11.9		
RAI 80	Clarification response (not incorporated)		
RAI 81	See Software Program Manual Revision 1 Section 5.14		
RAI 82	Clarification (not incorporated) and see Software Program Manual Revision 1 Section 10.3.6		
RAI 83	See Software Program Manual Revision 1 Section 10.0		
RAI 84	Clarification (not incorporated) and see Software Program Manual Revision 1 Section 12.2.2		
RAI 85	See Software Program Manual Revision 1 Sections 13.1 and SIVAT relocated to ANP-10303P, "SIVAT: TELEPERM XS™ Simulation Validation Test Tool Topical Report"		
RAI 86	See Software Program Manual Revision 1 Section 11.3		
RAI 87	See Software Program Manual Revision 1 Section 4.2		
Status	Getachew Tesfaye (NRC) to Ronnie L. Gardner (AREVA NP Inc.), "Review of the ANP-1 0272P, 'Software Program Manual For TELEPERM XS Safety s Topical Report' (TAC No. MD3971)," March 9, 2009.		
"AREV Manual	Ronnie L. Gardner (AREVA NP Inc.) to Document Control Desk (NRC), A NP Response to Review Status of the ANP-10272, 'Software Program for TELEPERM XS Safety Systems Topical Report' (TAC No. MD3971)," 9:035, April 7, 2009.		
Concern 1	ANP-10272, "Software Program Manual for TELEPERM XS Safety Systems Topical Report," Revision 1 was completely revised and reformatted to address prior RAI responses, alignment with the recent version of Branch Technical Position 7-14, and incorporate new material based on the lessons learned during the review of the Oconee digital protection system license amendment request. A cross reference between prior RAI responses and the applicable Software Program Manual section has been provided to facilitate NRC review.		

See Software Program Manual Revision 1 Sections 1.0 and 3.1

Concern 3	Clarification (not incorporated) and see Software Program Manual Revision 1 Sections 4.0, 4.2, 11.9, and 13.0	
Concern 4	See Software Program Manual Revision 1 Sections 3.4 and 4.0	
Concern 5	See Software Program Manual Revision 1 Section 3.6	
Concern 6	See Software Program Manual Revision 1 Sections 11.2, 11.8, 11.9.2, 11.9.3, 11.9.4,11.9.5, 11.10, 13.0	
Concern 7	See Software Program Manual Revision 1 Section 12.2.	
Concern 8	See Software Program Manual Revision 1 Sections 4.2, 4.3, 11.8, 11.9.3, 11.9.4, 11.9.5, 13.3, and 13.4 and SIVAT relocated to ANP-10303P, "SIVAT: TELEPERM XS™ Simulation Validation Test Tool Topical Report"	
Concern 9	See Software Program Manual Revision 1 Section 10.0	
Concern 10	See Software Program Manual Revision 1 Section 4.2	
Concern 11	See Software Program Manual Revision 1 Sections 3.3.1, 3.5.2, 4.2, 5.2, 6.0 11.3, 11.8, 11.9.2, 11.9.3, 11.9.4, 11.9.5, 11.10, 13.3, and 13.4	

## AFFIDAVIT

COMMONWEALTH OF VIRGINIA	· )	
	)	SS
CITY OF LYNCHBURG	)	

- My name is Mark J. Burzynski. I am Manager, Product Licensing, for AREVA NP
   Inc. and as such I am authorized to execute this Affidavit.
- 2. I am familiar with the criteria applied by AREVA NP to determine whether certain AREVA NP information is proprietary. I am familiar with the policies established by AREVA NP to ensure the proper application of these criteria.
- 3. I am familiar with the AREVA NP information provided to the NRC in support of the AREVA NP request for approval of ANP-10272 Revision 1, "Software Program Manual for TELEPERM XS<sup>TM</sup> Safety Systems Topical Report." The following AREVA NP documents are provided in support of the NRC review of the Topical Report and referred to herein as the "Documents."
  - AREVA NP Document 51-9047411-001, "Alignment of the TXS Software Program Manual Topical Report with NRC Branch Technical Position 7-14"
- AREVA NP Document 51-9118047-000, "TELEPERM XS Cyber Security Features"
   Information contained in these Documents has been classified by AREVA NP as proprietary in accordance with the policies established by AREVA NP for the control and protection of proprietary and confidential information.
- 4. These Documents contains information of a proprietary and confidential nature and is of the type customarily held in confidence by AREVA NP and not made available to the public. Based on my experience, I am aware that other companies regard information of the kind contained in these Documents as proprietary and confidential.

- 5. These Documents have been made available to the U.S. Nuclear Regulatory Commission in confidence with the request that the information contained in these Documents be withheld from public disclosure. The request for withholding of proprietary information is made in accordance with 10 CFR 2.390. The information for which withholding from disclosure is requested qualifies under 10 CFR 2.390(a)(4) "Trade secrets and commercial or financial information".
- 6. The following criteria are customarily applied by AREVA NP to determine whether information should be classified as proprietary:
  - (a) The information reveals details of AREVA NP's research and development plans and programs or their results.
  - (b) Use of the information by a competitor would permit the competitor to significantly reduce its expenditures, in time or resources, to design, produce, or market a similar product or service.
  - (c) The information includes test data or analytical techniques concerning a process, methodology, or component, the application of which results in a competitive advantage for AREVA NP.
  - (d) The information reveals certain distinguishing aspects of a process, methodology, or component, the exclusive use of which provides a competitive advantage for AREVA NP in product optimization or marketability.
  - (e) The information is vital to a competitive advantage held by AREVA NP, would be helpful to competitors to AREVA NP, and would likely cause substantial harm to the competitive position of AREVA NP.

The information in these Documents is considered proprietary for the reasons set forth in paragraphs 6(b), 6(c) and 6(d) above.

- 7. In accordance with AREVA NP's policies governing the protection and control of information, proprietary information contained in these Documents has been made available, on a limited basis, to others outside AREVA NP only as required and under suitable agreement providing for nondisclosure and limited use of the information.
- 8. AREVA NP policy requires that proprietary information be kept in a secured file or area and distributed on a need-to-know basis.
- 9. The foregoing statements are true and correct to the best of my knowledge, information, and belief.

Mary Brugger

SUBSCRIBED before me on this 12th

Sherry L. McFaden

NOTARY PUBLIC, COMMONWEALTH OF VIRGINIA

MY COMMISSION EXPIRES: 10/31/2010

Registration # 7079129

SHERRY L. MCFADEN
Notary Public
Commonwealth of Virginia
7079129
My Commission Expires Oct 31, 2010