

**From:** "Shingleton, Elmer B" <ebshingleton@duke-energy.com>  
**To:** "Leonard Olshan" <LNO@nrc.gov>  
**Date:** 1/15/2008 5:17:00 PM  
**Subject:** RE: Documents Needed for Oconee Digital Platform ModificationLAR

Lenny,

We inserted the documents in the list provided on 12/21 into a table and correlated them to the applicable Duke/AREVA documents (This table only includes documents to be docketed prior to acceptance review). As I indicated earlier on the phone, we would like to discuss by teleconference with Iqbal Ahmed and Bill Kemper on Thursday (1/17) and make sure we have correlated these correctly.

Boyd Shingleton  
864-885-4716

-----Original Message-----

From: Leonard Olshan [mailto:LNO@nrc.gov]  
Sent: Friday, December 21, 2007 2:43 PM  
To: Shingleton, Elmer B; Gill, Robert L Jr  
Cc: Evangelos Marinos  
Subject: Fwd: Documents Needed for Oconee Digital Platform ModificationLAR

>>> Iqbal Ahmed 12/21/2007 2:39 PM >>>

This is the current list of documents in TWG#6 for LAR review of a typical modification like that at Oconee. You may please send this information to Duke for their consideration for the LAR package.

**CC:** "Gill, Robert L Jr" <rlgill@duke-energy.com>, "BURZYNSKI Mark J (AREVA NP INC)" <Mark.Burzynski@areva.com>

## Documents Needed to be Docketed Prior to Acceptance Review

### Correlates NRC list to Duke list

Notes: 1) Item No in left hand column corresponds to listing number in ISG #6  
 2) Bolded LAR Number in middle column is from Table 1-2 of Enclosure 1 to RPS/ESPS LAR

NRC Document Description (from ISG)	Duke Document Number	Comment
1. <b>Commercial Grade Dedication Plans</b>	<b>LAR 17</b> (Report: AREVA NP Document No. 51-5055058) (Procedure: AREVA NP Document No. 51-9062468 & 51-9062071)	Dedication Package for Absopulse Power Supply
2. <b>D3 Analysis (includes system modifications and plant specific architecture and use)</b>	D3 submittal and associated RAI response LAR Section 2.4 LAR Section 3.2.3	March 20, 2003 letter (ML030920676), RAI response dated: 9/23/2004 (ML042790480), 10/6/2005 (ML052850287), 10/26/2005 (ML053480168), 12/14/2005 (ML053630058), 4/26/2006 (ML061320477)
3. Description of system in sufficient detail to determine compliance with ISG #4 on Communications	LAR Section 3.4.6	Supporting AREVA doc # 51-9045796, "Oconee Nuclear Station, Units 1, 2 and 3 RPS/ESFAS Controls Upgrade Conformance to IEEE Std 603-1991 and IEEE Std 7-4.3.2-2003  Note: Oconee doesn't have an HICR. Discussion of Safety/NSR data communication provided in LAR. Section 3.4.6 addresses SR/NSR data comm
4. Design Analysis Report (includes system modifications and plant specific architecture and use)	<b>LAR 1</b> (AREVA NP Document No. 51-5045374)  <b>LAR 36</b> (OSC-8623)	Detailed System Architecture  ONS Unit 1 – RPS & ESFAS System Functional Description
5. Design Report on computer integrity, test and calibration; and Fault detection and self diagnostics (to the degree to which these were affected by system modifications).	TXS SE TXS Topical Report EMF 2110, R1  AREVA NP Doc No. 51-9044432	NRC SE dated 5/5/2000 (ML003711856) TXS Topical Report dated 9/1999  Surveillance Interval Justification Document
6. Detailed theory of operation description (includes system modifications and plant specific architecture and use)	LAR Section 2 TXS Topical Report EMF 2110, R1	TXS Topical Report dated 9/1999
7. <del>Draft Setpoint methodology</del>		Not needed for acceptance review.
8. EMI, Temperature, Humidity, and Seismic testing plans (to the degree to which these were affected by the system modifications - may require complete retest.)	<b>LAR 20</b> (AREVA NP Document No. 66-5015893)  <b>LAR 21</b> (AREVA NP Document No. 66-5065212)	TXS Supplemental EQ (Equipment Qualification) Summary Test Report  ONS RPS/ESFAS Replacement Project Equipment Qualification Report
9. Software QA Plan / Procedures (includes system modifications and plant specific architecture and use)	<b>LAR 27</b> (NSD 800)  AREVA NP Doc No. ANP-10272  LAR Section 3.4.3	Software and Data Quality Assurance (SDQA) Program  AREVA Software Program Manual (Reference #11 in Enclosure 1 of LAR)

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10. <b>System description to block diagram level (includes system modifications and plant specific architecture and use)</b>	<b>LAR 1:</b> a. AREVA NP Doc No. 51-5045374  b. AREVA NP Doc No. 51-9029108	Oconee Nuclear Station, Unit 1 RPS/ESFAS Controls Upgrade System Architecture  RPS/ESFAS Controls Upgrade TXS System Description for LAR Input
11. <b>Hardware &amp; Software Architecture Descriptions (includes system modifications and plant specific architecture and use)</b>	<b>LAR 1b</b> - AREVA NP Doc No. 51-5045374  TXS Topical Report EMF 2110, R1	<del>Oconee Nuclear Station, Unit 1</del> <del>RPS/ESFAS Controls Upgrade System Architecture</del> TXS Topical Report dated 9/1999
12. Preliminary FMEA (non-docketed)	<b>LAR 6</b> (AREVA NP Document No. 51-5023886 & )	Final FMEA
13. <del>Quality Assurance Plan for digital hardware and software (This was not modified)</del>	AREVA NP SPM (Ref. 11 in LAR)	Not needed for acceptance review
14. Preliminary Reliability Analysis Descriptions (includes system modifications and plant specific architecture and use)	LAR 3.3.15  TXS Topical Report EMF 2110, R1	AREVA Doc. No. 38-5061241, "TXS Hardware Availability Analysis" TXS Topical Report dated 9/1999
15. Safety Analysis Descriptions (includes system modifications and plant specific architecture and use)	LAR Section 3.3.16.1 - For the RPS/ESPS digital upgrade relevant setpoints, margins, errors and response times required for input to the digital RPS/ESPS design are provided in <b>LAR 36, 38, 37, 45</b> , and ONS Uncertainty Calculations ( <b>LAR 28, 29, 31, 33, and 35</b> ). The digital RPS/ESPS is designed to operate within the bounds of the requirements provided in these documents so that the assumptions used in the existing safety analyses are not invalidated.	N/A – using existing setpoints  Addressed response times (AREVA Doc. No. 32-9009296, "Oconee Nuclear Station, Unit 1 RPS/ESFAS Controls Upgrade Response Time Calculation")
16. <b>System Requirements Specification Descriptions (includes system modifications and plant specific architecture and use)</b>	<b>LAR 8</b> (AREVA NP Document No. 51-9054435)  <b>LAR 36</b> (OSC-8623)  <b>LAR 37</b> (OSS-0311.00-00-0012)  <b>LAR 38</b> (OSS-0311.00-00-0013)	Software Requirements Specification, ONS-1 RPS/ESF Software Requirements Specification (QA1)  ONS Unit 1 – RPS & ESFAS System Functional Description  Engineered Safeguard Feature Actuation System (ESFAS) Replacement Project Specification  Reactor Protection System (RPS) Replacement Project Specification

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NRC Document Description (from ISG)	Duke Document Number	Comment
17. <i>System Test Plan (Since this was changed, this needs to be re-reviewed)</i>	<b>LAR 16</b> (AREVA NP Document No. 51-9052960)	ONS Unit 1 – RPS & ESFAS Factory Acceptance Test Plan
18 Software Life Cycle Documentation		
a. Software CM Plan	a. <b>LAR 11</b> (AREVA NP Doc No. 51-9006444)	a. Not needed for acceptance review.
b. Software Design Specification (includes system modifications and plant specific architecture and use)	b. <b>LAR 14</b> (AREVA NP Doc No. 51-5065423)	b. ONS Unit 1 RPS/ESFAS Controls Upgrade Software Design Description
c. <i>Software Development Plan (Since this was changed, this needs to be re-reviewed)</i>	c. SPM, Section 9	c. AREVA NP Software Program Manual
d. <del>Software Installation Plan (This was not modified)</del> f. <del>Software Maintenance Plan (This was not modified)</del>	d. SPM	d. Not needed for acceptance review.
e. <del>Software Integration Plan (This was not modified)</del>	e. SPM	e. Not needed for acceptance review.
f. <del>Software Maintenance Plan (This was not modified)</del>	f. SPM	f. Not needed for acceptance review.
g. <del>Software Management Plan (This was not modified)</del>	g. SPM	g. Not needed for acceptance review.
h. <del>Software Operations Plan</del>	h. SPM	h. Not needed for acceptance review.
i. <del>Software Project Risk Management Program (This was not modified)</del>	i. SPM	i. Not needed for acceptance review.
j. Software Requirements Specification (Plant specific applications software only)	j. <b>LAR 8</b> (AREVA NP Doc No. 51-9054435)	j. Software Requirements Specification, ONS-1 RPS/ESF
k. Software Safety Plan (Plant specific applications only)	k. <b>LAR 18</b> (AREVA NP Document No. 51-9005043)	k. Software Requirements Specification
l. <i>Software Test Plan (Since this was changed, this needs to be re-reviewed)</i>	l. SPM	l. AREVA NP Software Program Manual
m. <i>Software Tool Verification Program (Since this was changed, this needs to be re-reviewed)</i>	m. <b>LAR 25</b> (NGLP/2004/en/0094)	m. FANP (Framatome ANP) Report, "TELEPERM XS Simulation – Concept of Validation and Verification"
n. Software Training Plan	<b>LAR 43</b> (TXS-1047-76-V2.0/01.04)	SIVAT-TXS Simulation Based Validation Tool, Version 1.4.0 (now rev. 1.5.1)
o. <b>Software V&amp;V Plan and procedures (Since this was changed, this needs to be re-reviewed)</b>	<b>o. LAR 13</b> (AREVA NP Document No. 51-9010419)	o. ONS Units 1, 2, & 3 RPS/ESFAS Controls Upgrade Verification and Validation Plan
19 Requirement Traceability Matrix (Plant specific applications software only)	<b>LAR 2</b> (AREVA Doc. No 51-9062040).	<i>Oconee Nuclear Station, Unit 1 RPS/ESFAS Controls Upgrade Requirements Traceability Matrix Report</i>