

## BellBendCOLPEm Resource

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**From:** Freels, James [James.Freels@unistarnuclear.com]  
**Sent:** Tuesday, November 03, 2009 8:12 AM  
**To:** Canova, Michael  
**Cc:** Sgarro, Rocco; Kirkwood, Jon K  
**Subject:** Draft RAI 71  
**Attachments:** Table 1.9-1.pdf

Mike,

Draft RAI 71 provides an unclear problem statement. The RAI text identifies that FSAR Table 1.9-1 provides a listing of Regulatory Guides where BBNPP conformance is listed. This is not the case. FSAR Table 1.9-1 lists those Regulatory Guides where exceptions are taken or full adherence is not achieved. Please read the "Note" under the Table title for each of the three Table pages in the attached file.

If this is unclear to the reviewer, we can schedule a call for clarification. Please let me know what you believe the best way is to reconcile the question.

Kind regards,  
Jim

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**Hearing Identifier:** BellBend\_COL\_Public  
**Email Number:** 433

**Mail Envelope Properties** (90478CADFB15C54EBFE89FF84D69F962F00AAF4431)

**Subject:** Draft RAI 71  
**Sent Date:** 11/3/2009 8:12:14 AM  
**Received Date:** 11/3/2009 8:12:48 AM  
**From:** Freels, James

**Created By:** James.Freels@unistarnuclear.com

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**Post Office:** EXM-OMF-06.Ceg.Corp.Net

<b>Files</b>	<b>Size</b>	<b>Date &amp; Time</b>
MESSAGE	1035	11/3/2009 8:12:48 AM
Table 1.9-1.pdf	44744	

**Options**

**Priority:** Standard  
**Return Notification:** No  
**Reply Requested:** No  
**Sensitivity:** Normal  
**Expiration Date:**  
**Recipients Received:**

Table 1.9-1 {Conformance with Regulatory Guides}

Note: BBNPP conforms to applicable Regulatory Guides with the following exceptions:  
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RG / Rev	Description	Exception Descriptions	Reference
		Division 1 Regulatory Guides	
1.8, R3	Qualification and Training of Personnel for Nuclear Power plants	Licensed personnel are not able to meet Regulatory Guide 1.8, Rev. 3 operating plant experience requirements on BBNPP. Regulatory Guide 1.8, Rev. 2, Regulatory Position C.1.b will be followed instead for a cold licensing program.  Quality Control and Quality Assurance personnel will meet education and experience requirements in accordance with the approved Quality Assurance Program Description.  The Quality Assurance Manager will approve the use of an alternative for the formal education and experience requirements for Quality Assurance positions in accordance with the approved Quality Assurance Program Description.	FSAR 13.1.3.1 FSAR 13.2.2 Technical Specifications 5.3.1  FSAR 13.1.3.1  FSAR 13.1.3.1
1.16, R4	Reporting of Operating Information—Appendix A Technical Specifications	The annual operating report and monthly operating report are submitted in accordance with Technical Specifications. Event reporting is performed in accordance with 10 CFR 50.72 and 50.73 utilizing the guidance of NUREG-1022. Technical Specifications reporting requirements are implemented, as required.	License Condition and Technical Specifications
1.23, R1	Meteorological Monitoring Programs for Nuclear Power Plants	The existing SSES meteorological tower used for pre-application and pre-operation is at a different elevation than plant grade to assure the tower is on a level, open terrain. Similarly, the SSES cooling towers are within 10 times the height of the towers from the SSES meteorological tower. The resolution of the existing sensors does not meet the resolution recommended. The tower, guyed wire and anchor inspections are not performed every 3 years. For BBNPP operation, the SSES and BBNPP cooling towers are within 10 times the height of the towers from the BBNPP meteorological tower	FSAR 2.3.3.1.7, and 2.3.3.2.7 ER 6.4.1, 6.4.1.7, and 6.4.2.7
1.28, R3	Quality Assurance Program Requirements	Quality Assurance Program Requirements are in accordance with the approved Quality Assurance Program Description.	QAPD
1.30, R0	Quality Assurance Requirements for the Installation, Inspection, and Testing of Instrumentation and Electric Equipment	Quality Assurance requirements for the installation, inspection, and testing of instrumentation and electric equipment are in accordance with the approved Quality Assurance Program Description.	QAPD
1.33, R2	Quality Assurance Program Requirements (Operation)	Quality Assurance Program Requirements for Operation are in accordance with the approved Quality Assurance Program Description.	QAPD
1.38, R2	Quality Assurance Requirements for Packaging, Shipping, Receiving, Storage, Handling of Items for Water-Cooled Nuclear Power Plants	Quality Assurance requirements for packaging, shipping, receiving, storage, and handling of items are in accordance with the approved Quality Assurance Program Description.	QAPD
1.39, R2	Housekeeping Requirements for Water-cooled Nuclear Power Plants	Quality Assurance requirements for housekeeping are in accordance with the approved Quality Assurance Program Description.	QAPD
1.70, R3	Standard Format and Content of Safety Analysis Reports for Nuclear Power Plants (LWR Edition)	The format and content of the FSAR follows Regulatory Guide 1.206 and the U.S. EPR FSAR.	FSAR 1.1.6
1.94, R1	Quality Assurance Requirements for Installation, Inspection and Testing of Structural Concrete and Structural Steel During the Construction Phase of Nuclear Power Plants	Quality Assurance Program Requirements for installation, inspection and testing of structural concrete and structural steel during the construction phase of nuclear power plants are in accordance with the approved Quality Assurance Program Description.	QAPD

Table 1.9-1 {Conformance with Regulatory Guides}

Note: BBNPP conforms to applicable Regulatory Guides with the following exceptions:

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RG / Rev	Description	Exception Descriptions	Reference
1.112, R0	Calculation of Releases of Radioactive Materials in Gaseous and Liquid Effluents from Light-Water-Cooled Nuclear Power Reactors	Estimated Annual Radioactive Liquid and Gaseous Releases - Changes made to the input parameters for the GALE code for shim bleed flow rate, process time, and recycle of water -An updated estimate of the Carbon-14 release in gaseous effluents was used versus what is given by the GALE code based on larger plant size and the relationship of power level and the production of Carbon-14.	FSAR 11.2.3.2 and 11.3.3.2
1.116, R0	Quality Assurance Requirements for Installation, Inspection, and Testing of Mechanical Equipment and Systems	Quality Assurance Program Requirements for installation, inspection, and testing of mechanical equipment and systems are in accordance with the approved Quality Assurance Program Description.	QAPD
1.132, R3	Site Investigation for Foundations of Nuclear Power Plants	Deviations from Regulatory Guide 1.132 include soil boring depths into bedrock, deviation surveys were limited to boreholes with geophysical testing, and undisturbed samples were sealed in steel tubes, and could not be photographed.	FSAR 2.5.4.2.2.2
1.138, R2	Laboratory Investigations of Soils and rocks for Engineering Analysis and Design of Nuclear Power Plants	More recent ASTM or EPA standards were used that are equivalent to the out-of-date and uncommon test procedures discussed in Regulatory Guide 1.138, R2.	FSAR 2.5.4.2.3
1.198, R0	Procedures and Criteria for Assessing Seismic Soil Liquefaction at Nuclear Power Plant Sites	Aerial photography was not conducted to plan and conduct the subsurface investigation due to uniformity in geologic conditions between the existing SSES Units 1 and 2 and BBNPP.	FSAR 2.5.4.8.1
1.208, R0	A Performance-Based Approach to Define the Site-Specific Earthquake Ground Motion	EPRI Report TR-1014381 was used in lieu of EPRI Report 1013105. The former report is the final EPRI report versus the latter update report cited in the Regulatory Guide. There is no technical difference between the recommended CEUS sigma values and report conclusions.	FSAR 2.5.2.4.5
		Equation 7 in Appendix D, Step 3, Determining Controlling Earthquakes, was not used because it is incorrect. A corrected equation was used instead. EPRI TR-1014099 was used in lieu of the Regulatory Guide 1.208 cited document (EPRI Report 1012965). EPRI Report 1012965 was an update report for CAV research while EPRI TR-1014099 is the final report. For the purposes of revised calculation of the CAV in the CEUS, there is no technical difference between the documents. The methodologies of calculation of the CAV of both reports are identical.	FSAR 2.5.2.6
		Division 4 Regulatory Guides	
		None	
		Division 5 Regulatory Guides	
		None	
		Division 8 Regulatory Guides	
8.2, R0	Guide for Administrative Practices in Radiation Monitoring	The reference to 10 CFR 20.401 is no longer valid in the current version of 10 CFR Part 20 ANSI N13.2-1969 was reaffirmed in 1988.	FSAR 12.5

Table 1.9-1 {Conformance with Regulatory Guides}

Note: BBNPP conforms to applicable Regulatory Guides with the following exceptions:  
(Page 3 of 3)

RG / Rev	Description	Exception Descriptions	Reference
8.4, R0	Direct-Reading and Indirect-Reading Pocket Dosimeters	The reference to 10 CFR 20.202 (a) and 20.401 is no longer valid in the current version of 10 CFR Part 20. ANSI N13.5-1972 was reaffirmed in 1989. The two performance criteria specified in Regulatory Guide 8.4 (accuracy and leakage) for these devices are met using acceptance standards in ANSI N322-1997 "American National Standard Inspection, Test, Construction, and Performance Requirements for Direct Reading Electrostatic/ Electrostatic Type Dosimeters."	FSAR 12.5
8.6, R0	Standard Test Procedure for Geiger-Muller Counters	The instrument calibration program is based upon criteria in ANSI N323-1978 (R1993) "Radiation Protection Instrumentation and Calibration."	FSAR 12.5
8.8, R3	Information Relevant to Ensuring That Occupational Radiation Exposures at Nuclear Power Stations Will Be As Low As Reasonably Achievable	Section C.3.b – Regulatory Guide 1.16 Section C.1.b (3) data is no longer reported. Reporting is also no longer required for Section C.1.b (2). Sections C.4.b – C.4.d – Conformance is with the latest revision of NUREG-0041.	FSAR 12.5

