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UniStar
NUCLEAR ENERGY

10 CFR 50.4
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October 27, 2011

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ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: UniStar Nuclear Energy, NRC Docket No. 52-016
Response to Request for Additional Information for the
Calvert Cliffs Nuclear Power Plant, Unit 3,
RAI 321, Fire Protection Program

Reference: Surinder Arora (NRC) to Paul Infanger (UniStar Nuclear Energy), "FINAL RAI 321 SBPA 5954," email dated September 29, 2011

The purpose of this letter is to respond to the request for additional information (RAI) identified in the NRC e-mail correspondence to UniStar Nuclear Energy, dated September 29, 2011 (Reference). This RAI addresses the Fire Protection Program, as discussed in Section 9.5.1 of the Final Safety Analysis Report (FSAR), as submitted in Part 2 of the Calvert Cliffs Nuclear Power Plant (CCNPP) Unit 3 Combined License Application (COLA), Revision 7.

The enclosure provides our response to RAI No. 321, Question 09.05.01-18 and includes revised COLA content. A Licensing Basis Document Change Request has been initiated to incorporate these changes into a future revision of the COLA.

Our response does not include any new regulatory commitments. This letter does not contain any sensitive or proprietary information.

D096
NRD

If there are any questions regarding this transmittal, please contact me at (410) 369-1905, or Mr. Wayne A. Massie at (410) 369-1910.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on October 27, 2011

Vincent Sorel
for Greg Gibson

Enclosure: Response to NRC Request for Additional Information RAI No. 321, Question 09.05.01-18, Fire Protection Program, Calvert Cliffs Nuclear Power Plant, Unit 3

cc: Surinder Arora, NRC Project Manager, U.S. EPR Projects Branch
Laura Quinn, NRC Environmental Project Manager, U.S. EPR COL Application
Getachew Tesfaye, NRC Project Manager, U.S. EPR DC Application (w/o enclosure)
Charles Casto, Deputy Regional Administrator, NRC Region II (w/o enclosure)
Silas Kennedy, U.S. NRC Resident Inspector, CCNPP, Units 1 and 2
U.S. NRC Region I Office

GTG/FRP/mdf

Enclosure

Response to NRC Request for Additional Information

RAI No. 311, Question 09.05.01-18,
Fire Protection Program

Calvert Cliffs Nuclear Power Plant, Unit 3

RAI No. 321

Question 09.05.01-18

Section 9.5.1.2.1 addresses COL Information Item 9.5-19 which relates to providing site-specific Fire Protection System piping and instrumentation diagrams. The applicant in this section described providing Figures 9.5-2 and 9.5-3 to address this issue. CCNPP Unit 3 FSAR Revision 6 had these figures as per Section 9.5.1.2.1. CCNPP Unit 3 FSAR Revision 7 revised Figures 9.5-1, 9.5-2, and 9.5-3 such that the write-up in Section 9.5.1.2.1 no longer applies to the revised figures. Update Section 9.5.1.2.1 to agree with CCNPP Unit 3 FSAR Revision 7 revised Figures 9.5-1, 9.5-2, and 9.5-3.

Response

FSAR Section 9.5.1.2.1 will be revised, as identified COLA Impact section below, to agree with CCNPP Unit 3 FSAR Revision 7 revised Figures 9.5-1, 9.5-2, and 9.5-3. Minor changes will be made to FSAR Figures 9.5-2 and 9.5-3, as identified COLA Impact section below, so that they correctly refer to each other. In addition, one paragraph in FSAR Section 9.5.1.2.1 that was inadvertently duplicated will be deleted.

COLA Impact

FSAR Section 9.5.1.2.1 will be revised as follows:

9.5.1.2.1 General Description

For all aspects of the site specific Fire Protection Program (FPP), the same codes and standards and applicable edition years apply for fire protection as listed in Section 9.5.1.7 of the U.S. EPR FSAR.

Table 9.5-1 provides supplemental information for select items/statements in U.S. EPR FSAR Table 9.5-1 identified as requiring COL Applicant input. The supplemental information is in a column headed {"CCNPP Unit 3 Supplement"} and addresses {CCNPP Unit 3} conformance to the identified requirement of Regulatory Guide 1.189 (NRC, 2007).

~~{Figure 9.5-2 and Figure 9.5-3 each provide a schematic piping and instrumentation diagram of the fire water distribution system specific to CCNPP Unit 3. These figures supplement the generic piping and instrumentation diagram provided in Figure 9.5-1 of the U.S. EPR FSAR.}~~

The U.S. EPR includes the following COL item in Section 9.5.1.2.1:

> A COL applicant that references the U.S. EPR design certification will provide a description and simplified Fire Protection System piping and instrumentation diagrams for site-specific systems.

This COL item is addressed as follows:

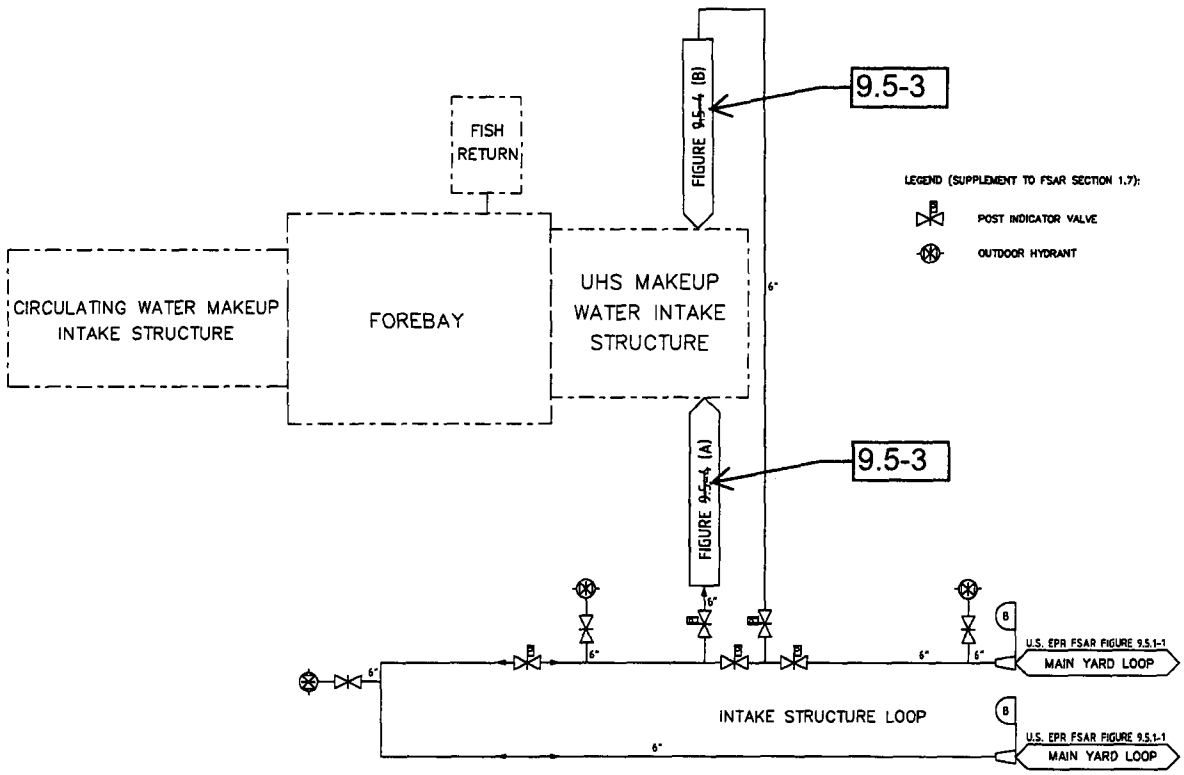
{Figure 9.5-1, Figure 9.5-2 and Figure 9.5-3 each provide a schematic piping and instrumentation diagram of the fire water distribution system specific to CCNPP Unit 3. These figures supplement the generic piping and instrumentation diagram provided in Figure 9.5.1-1 of the U.S. EPR FSAR.

Figure 9.5-21 illustrates the site-specific fire main yard loop supplying the Cooling Tower area. This non-seismic loop supplies the sprinkler system protecting the Water Treatment Building as well as the yard fire hydrants.

Figure 9.5-32 illustrates the site-specific fire main yard loop supplying the Intake Structure area. The Seismic Category II-SSE loop supplies fire water to the above ground manual and automatic suppression systems identified in Figure 9.5-3. This figure illustrates the Seismic Category II-SSE standpipe and hose stations and the Seismic Category II sprinkler systems specified for the UHS Makeup Water Intake Structure.}

FSAR Figure 9.5-2 will be revised as follows:

Figure 9.5-2— {CCNPP Unit 3 Fire Water Distribution System – Intake Structure Loop}

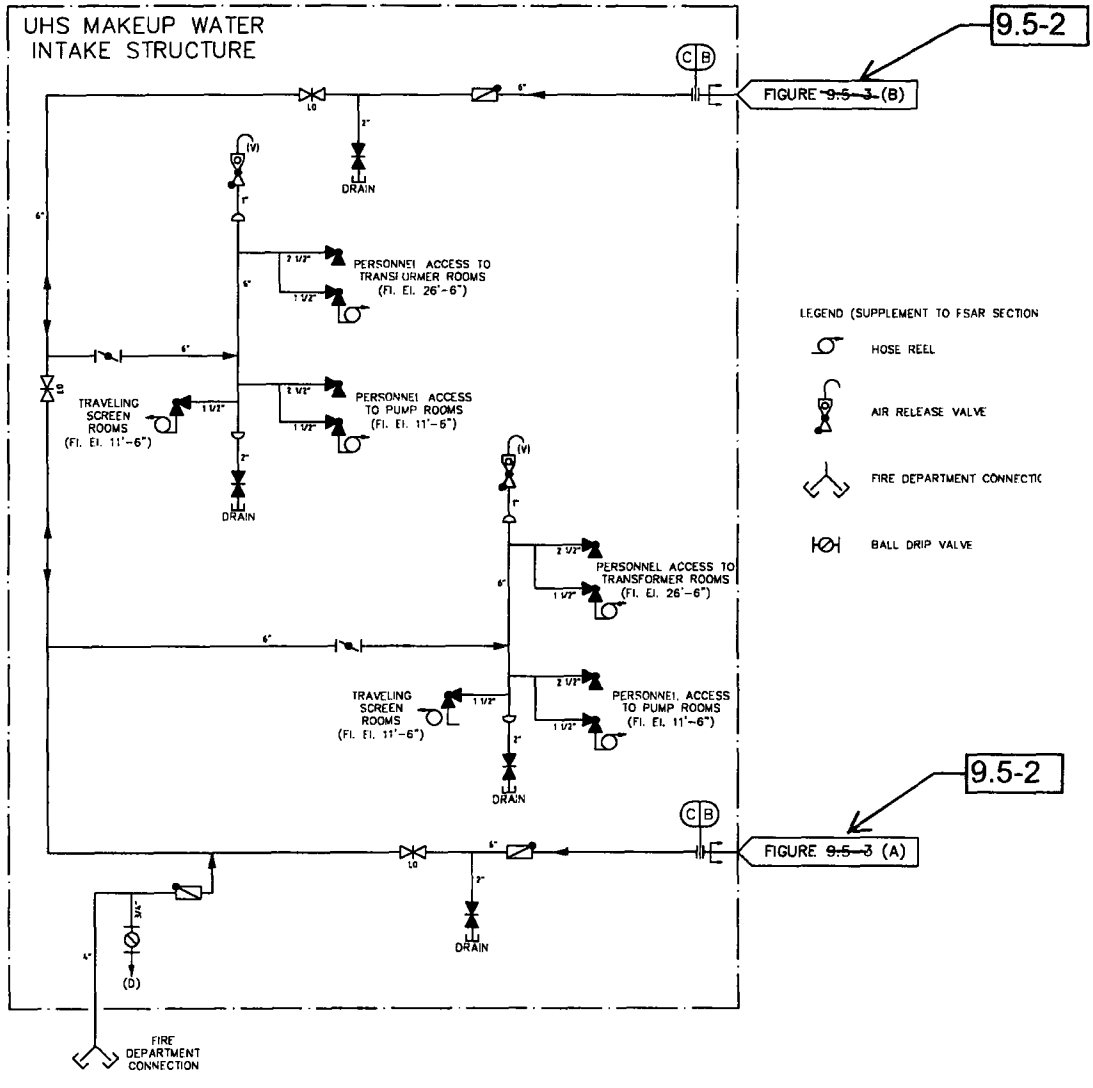


B	NS–AQ	D	250	100	II–SSE	Yes	NFPA 24, 2007 ed. NFPA 25. 2002 ed. NFPA 804, 2006 ed. ANSI/ASME B31.1, 2004 ed.
DESIGN AREA	SSC SAFETY CLASS	SSC QUALITY GROUP	DESIGN PRESSURE PSIG	DESIGN TEMPERATURE F	SSC SEISMIC CLASS	10 CFR APPENDIX B PROGRAM (NOTE 1)	COMMERCIAL CODE

NOTE 1: THOSE SSCs CLASSIFIED AS NS-AQ (FOR SAFETY CLASS) AND CLASSIFIED AS "YES" FOR 10 CFR 50 APPENDIX B WILL BE SUBJECT ONLY TO THOSE QUALITY ASSURANCE REQUIREMENTS OF APPENDIX B THAT ARE PERTINENT TO THAT SSC BASED ON POTENTIAL AFFECT OF THE SSC ON SAFETY-RELATED FUNCTIONS.

FSAR Figure 9.5-3 will be revised as follows:

Figure 9.5-3— {CCNPP Unit 3 UHS Makeup Water Intake Structure}



C	NS-AQ	D	250	120	II - SSE	YES	NFPA 13, 2007 ed. NFPA 14, 2007 ed. NFPA 25, 2002 ed. NFPA 804, 2006 ed. ANSI/ASME B31.1, 2004 ed.
B	NS-AQ	D	250	100	II - SSE	YES	NFPA 24, 2007 ed. NFPA 25, 2002 ed. NFPA 804, 2006 ed. ANSI/ASME B31.1, 2004 ed.
DESIGN AREA	SSC SAFETY CLASS	SSC QUALITY GROUP	DESIGN PRESSURE PSIG	DESIGN TEMPERATURE °F	SSC SEISMIC CLASS	10 CFR APPENDIX B PROGRAM (NOTE 1)	COMMERCIAL CODE

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