

Greg Gibson
Vice President, Regulatory Affairs

750 East Pratt Street, Suite 1600
Baltimore, Maryland 21202



10 CFR 50.4
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May 20, 2009

UN#09-242

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 No. 108, Radiation Sources

Reference: John Rycyna (NRC) to Robert Poche (UniStar Nuclear Energy), "RAI No 108
CHPB 2154.doc (PUBLIC)" email dated April 22, 2009

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 April 22, 2009 (Reference). This RAI addresses Radiation Sources, as discussed in Section 12.2.1.13 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 4.

The enclosure provides our response to RAI No. 108, Question 12.02-1, 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 to Question 12.02-1 does not include any new regulatory commitments.

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If there are any questions regarding this transmittal, please contact me at (410) 470-4205, or Mr. Michael J. Yox at (410) 495-2436.

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

Executed on May 20, 2009

A handwritten signature in black ink, appearing to read 'Greg Gibson', with a stylized, cursive script.

Greg Gibson

Enclosure: Response to NRC Request for Additional Information RAI No. 108, Question 12.02-1, Radiation Sources, Calvert Cliffs Nuclear Power Plant, Unit 3

cc: John Rycyna, NRC Project Manager, U.S. EPR COL Application
Laura Quinn, NRC Environmental Project Manager, U.S. EPR COL Application
Getachew Tesfaye, NRC Project Manager, U.S. EPR DC Application (w/o enclosure)
Loren Plisco, 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/RDS/jmm

Enclosure

**Response to NRC Request for Additional Information
RAI No. 108, Question 12.02-1, Radiation Sources
Calvert Cliffs Nuclear Power Plant, Unit 3**

RAI No. 108

Question 12.02-1

10 CFR 20.1501(b) requires, in part, that instruments and equipment used to perform dose rate surveys be calibrated periodically for the radiation to be measured.

Section 12.2.1.13, Miscellaneous Sources, of the CCNP Unit 3 FSAR states:

The U.S. EPR FSAR includes the following COL Item in Section 12.1.2.1.13:

A COL applicant that references the U.S. EPR design certification will provide site-specific information for required radiation sources containing byproduct, source, and special nuclear material that may warrant shielding design considerations. This site-specific information will include a listing of isotope, quantity, form, and use of all sources in this latter category that exceed 100 millicuries.

This COL item is addressed as follows:

The following radiation sources have been identified to be required.

Isotope	Quantity	Form	Use
Cf-252	0.5 Ci	Sealed Source	Primary Start-up Source
Sb-Be	3E+06 Ci	Sealed Source	Secondary Source
Cs-137	400 Ci	Sealed Source	Calibration
Cs-137	{130 mCi}	Sealed Source	Calibration
{Am-241	0.03 µCi	Sealed Source	Calibration}"

This source list does not include a neutron source for portable neutron survey meter calibration as required by 10 CFR 20.1501(b). Please provide the information for such a source or an alternative method or system for such instrument calibration.

Response

Source checking of the portable neutron instruments will be performed using a suitable neutron source. Therefore, the table in FSAR Section 12.2.1.13 will be supplemented to reflect an AmBe neutron source.

COLA Impact

FSAR Section 12.2.1.13 will be supplemented as follows in a future COLA revision:

Isotope	Quantity	Form	Use
Cf-252	0.5 Ci	Sealed Source	Primary Start-up Source
Sb-Be	3E+06 Ci	Sealed Source	Secondary Source
Cs-137	400 Ci	Sealed Source	Calibration
{Cs-137	130 mCi	Sealed Source	Calibration}
{Am-241	0.03 µCi	Sealed Source	Calibration}
<u>{AmBe</u>	<u>3 Ci</u>	<u>Sealed Source</u>	<u>Calibration}</u>