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NUCLEAR ENERGY

10 CFR 50.4
10 CFR 52.79

February 6, 2009

UN#09-108

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. 44, Revision 3, Radiation Protection Design Features

References: 1) John Rycyna (NRC) to Robert Poche (UniStar), "RAI No 44 CHPB 1567.doc (P)," email dated January 6, 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, dated January 6, 2009 (Reference 1). This RAI addresses the Radiation Protection Design Features, as discussed in Section 12.3 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 3.

The enclosure provides our response to RAI No. 44, Revision 3, Question 12.03-12.04-1. Our response to Question 12.03-12.04-1 does not include any new regulatory commitments and does not require revised COLA content at this time.

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

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NRO

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

Executed on February 6, 2009

Greg Gibson

Enclosure: Response to NRC Request for Additional Information, RAI No. 44, Revision 3, Radiation Protection Design Features, Calvert Cliffs Nuclear Power Plant, Unit 3

cc: John Rycyna, NRC Project Manager, U.S. EPR COL Application
Thomas Fredrichs, 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

**Enclosure**

**Response to NRC Request for Additional Information**

**RAI No. 44, Revision 3, Radiation Protection Design Features**

**Calvert Cliffs Nuclear Power Plant, Unit 3**

**RAI No. 44, Revision 3**

**Question 12.03-12.04-1**

The NRC has sent RAIs requesting the US EPR design certification applicant to provide a general description of how each of the main design objectives contained in Regulatory Guide 4.21 will be met in the generic design. The US EPR design certification applicant was also requested to address the objectives that are more operational or procedural in nature by providing COL information items in the appropriate sections of the US EPR design control document (DCD) for COLAs referencing the US EPR design.

A detailed description of how the COL information items contained in the US EPR DCD will be resolved should be included in the appropriate sections of the Calvert Cliffs COLA FSAR where applicable, with a listing addressing each of these COL information items in Section 12.3 of the Calvert Cliffs COLA FSAR. For example, an acceptable description of a groundwater monitoring program should include implementation considerations and a description of the key components of the program, such as types and periodicity of routine samples to be taken, threshold activities to be detected, actions to be taken upon detection of leakage into the groundwater, and a description of quality assurance practices to be used to ensure reasonable assurance of prompt identification of leakage into the groundwater.

Using the guidance provided in Regulatory Guide 4.21, "Minimization of Contamination and Radioactive Waste Generation: Life Cycle Planning" (June 2008), provide a description of all of the operational programs and how the facility's procedures for operations will meet the requirements of 10 CFR 20.1406 (a)-minimize to the extent practicable, contamination of the facility and the environment, facilitate eventual decommissioning, and minimize, to the extent practicable, the generation of radioactive waste. Alternatively, justify another approach.

**Response**

The following information was provided by AREVA NP in their response to U.S. EPR FSAR RAI 23, Supplement 1, Question 12.03 – 12.04-1, Parts A and B[1]:

> The operational elements of the question and the associated RG 4.21 are those for which the nuclear industry has proposed resolution through the use of a generic industry approach. To support generic resolution, the Nuclear Energy Institute (NEI) has initiated development of NEI 08-08, which will include a generic FSAR template for the operational programs for implementing 10 CFR 20.1406. AREVA NP reaffirms its intention to use this generic template to establish the operational elements for the U.S. EPR.
>
> As committed in the initial response, elements of the response that pertain to operational objectives will be provided within 45 days of NRC approval of the generic template NEI 08-08; corresponding FSAR changes will be included.

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[1] AREVA NP Response to U.S. EPR Standard Design Certification Request for Additional Information 23, Supplement 1, Docket No. 52-020, dated 6/24/08 (ML083091033)

The AREVA RAI response further describes how the U.S. EPR complies with the requirements of 10 CFR 20.1406 by applying a contaminant management philosophy to the design of structures, systems, and components (SSC) that have the potential to contain radioactive materials and provides details of the implementation of this design philosophy into the design of systems.

As described in the referenced U.S. EPR FSAR RAI response, AREVA has committed to update the U.S. EPR FSAR Tier 2 content to incorporate NEI 08-08, "Generic FSAR Template Guidance for Life Cycle Minimization of Contamination," once it is approved by the NRC. The CCNPP Unit 3 COLA will be updated to incorporate NEI 08-08 upon incorporation into the U.S. EPR FSAR by AREVA. Any COL information items identified in Generic Template NEI 08-08 that are not addressed in the AREVA RAI response will also be addressed at that time.

**COLA Impact**

AREVA has committed to update the U.S. EPR FSAR Tier 2 content to incorporate NEI 08-08 once it is approved by the NRC. The CCNPP Unit 3 COLA will then be updated to incorporate NEI 08-08 upon incorporation into the U.S. EPR FSAR by AREVA. Any COL information items identified in Generic Template NEI 08-08 that are not addressed in the AREVA RAI response will also be addressed at that time.