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NUCLEAR ENERGY

10 CFR 50.4
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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 No. 207, Process and Effluent Radiological Monitoring Instrumentation and Sampling Systems

Reference: Surinder Arora (NRC) to Robert Poche (UniStar Nuclear Energy), "FINAL RAI No. 207 CHPB 4191" email dated February 2, 2010

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 February 2, 2010 (Reference). This RAI addresses Process and Effluent Radiological Monitoring Instrumentation and Sampling Systems, as discussed in Section 11.5 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 6.

The enclosure provides our response to RAI No. 207, Question 11.05-1, 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.

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

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NRO

If there are any questions regarding this transmittal, please contact me at (410) 470-4205, or Mr. Wayne A. Massie at (410) 470-5503.

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

Executed on March 4, 2010

Greg Gibson

Enclosure: Response to NRC Request for Additional Information RAI No. 207, Process and Effluent Radiological Monitoring Instrumentation and Sampling Systems, 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)
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/SJS/mdf

Enclosure

Response to NRC Request for Additional Information

RAI No. 207, Process and Effluent Radiological Monitoring Instrumentation and Sampling Systems

Calvert Cliffs Nuclear Power Plant, Unit 3

RAI No. 207
Question 11.05-1

CCNPP-3 FSAR Tier 2, Rev. 6, Section 11.5.2 endorses the use of NEI ODCM Template 07-09A (Revision 0, March 2009) to meet COL Information Item 11.5-1 until a plant and site-specific ODCM is prepared, before fuel load, under the requirements of a license condition described in CCNPP-3 FSAR Section 13.4, Table 13.4-1. The staff has reviewed NEI ODCM Template 07-09A and found it acceptable (ML091050234). The development of the site specific ODCM and implementing procedures should meet the provisions of GL 89-01 (Supplement No. 1), Radiological Assessment Branch Technical Position (Revision 1, November 1979) included as Appendix A in NUREG-1301, as ODCM guidance for PWRs, and the guidance of NUREG-0133, "Preparation of Radiological Effluent Technical Specifications for Nuclear Power Plants," October 1978. The staff finds this approach acceptable, given the inclusion of COL Information Item 11.5-1 in U.S. EPR FSAR Tier 2, Revision 1, Sections 1.8.1 and 11.5.2, and its implementation in CCNPP-3 FSAR Tier 2, Revision 6, Section 13.4.

However, the CCNPP-3 FSAR Tier 2 does not address unique site-specific conditions that are not covered in the NEI ODCM Template 07-09A. The CCNPP-3 FSAR does not consider how the ODCM will control liquid and gaseous effluent releases and doses to members of the public given that two licensees (Constellation for CCNPP-1&2 and UniStar for CCNPP-3) will be contributing to and competing for a single dose allocation to members of the public under Parts 20.1301 and 20.1302; Part 20.1301(e) in complying with 40 CFR Part 190; and unity-rule in meeting liquid and gaseous effluent concentration limits of Part 20 (App. B, Table 2, Col. 1 and 2). Accordingly, the applicant is requested to:

1. describe in CCNPP-3 FSAR Tier 2, Section 11.5.2 the administrative program and procedures that will be used to coordinate all liquid and gaseous effluent releases and dose allocations to members of the public between Constellation for CCNPP-1&2 and UniStar for CCNPP-3 in complying with NRC regulations.

2. if UniStar has already made specific arrangements with Constellation on this matter, the applicant is requested to describe in CCNPP-3 FSAR Tier 2, Section 11.5.2 the type and duration of such arrangements, the scope of the arrangements made in coordinating the responsibility to control liquid and gaseous effluent releases and doses to members of the public, and how the arrangements will be implemented in CCNPP-3 administrative programs and procedures in FSAR Tier 2, Section 13.1.

3. include this additional responsibility in the job functional description of the Radiation Protection/Chemistry Manager in CCNPP-3 FSAR Tier 2, Section 13.1.2.2.1.1.3.

Response

Item 1:

Section 11.5.2 of the CCNPP Unit 3 FSAR will be revised as shown below to briefly describe the program that will be put in place once the Chemistry programs are developed at CCNPP Unit 3 and revisions to the CCNPP Units 1 and 2 effluent monitoring program become necessary.

Item 2:

UniStar Nuclear Energy has not yet made specific arrangements with Constellation Energy Nuclear Group for coordination and control of liquid and gaseous effluent releases. Development of this process, as described in the FSAR update provided in response to Item 1, will occur as the radiological monitoring and control programs identified in Item 9 of FSAR Table 13.4-1 "Operational Programs Required by NRC Regulations and Program Implementation" are implemented. Implementation of these operational programs prior to initial fuel load is identified as License Condition 3 in Combined License Application (COLA) Part 10 "Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) and ITAAC Closure."

Item 3:

FSAR Section 13.1.2.2.1.1.3 will be revised as shown below to clearly state that the Radiation Protection and Chemistry Manager is responsible for the Radiological Effluent Technical Specifications/Standard Radiological Effluent Controls program, the Offsite Dose Calculation Manual, the Radiological Environmental Monitoring Program and the Process Control Program.

COLA Impact

Section 11.5.2 of the CCNPP Unit 3 FSAR will be revised as shown below:

11.5.2 SYSTEM DESCRIPTION

The U.S. EPR FSAR includes the following COL Item in Section 11.5.2:

> A COL applicant that references the U.S. EPR will fully describe, at the functional level, elements of the process and effluent monitoring and sampling programs required by 10 CFR Part 50, Appendix I and 10 CFR 52.79(a)(16). This program description, Offsite Dose Calculation Manual (ODCM), will specify how a licensee controls, monitors, and performs radiological evaluations of releases. The program will also document and report radiological effluents discharged to the environment.

This COL Item is addressed as follows:

{CCNPP Unit 3} will adopt NEI 07-09A, "Generic FSAR Template Guidance for Offsite Dose Calculation Manual (ODCM) Program Description," (NEI, 2009b). The milestone for development and implementation of the ODCM is addressed in Table 13.4-1.

{Additionally, a notification process that shares release and release rates information between CCNPP Units 1 and 2 and CCNPP Unit 3 will be established between the two licensees on the property to ensure the site dose and dose rate limits will not be exceeded. The notification requirements and cross company information exchange and tracking will be incorporated into the respective licensees' implementing procedures. This process will ensure that each organization is aware of the overall site releases for normal as well as Anticipated Operational Occurrences and each plant will have the ability to ensure that site wide releases will not exceed the applicable limits of 40CFR190 and 10CFR20. }

Section 13.1.2.2.1.1.3 of the CCNPP Unit 3 FSAR will be revised as shown below:

13.1.2.2.1.1.3 Radiation Protection/Chemistry Manager
The Radiation Protection/Chemistry Manager reports to the Plant General Manager and is responsible for providing for the radiological health and safety of plant personnel (including maintaining plant staff dose as low as reasonably achievable in accordance with Chapter 12) and members of the public. The Radiation Protection/Chemistry Manager is also responsible for managing the radioactive waste programs and for the implementation of the plant chemistry and non-radiological environmental monitoring programs. The Radiation Protection/Chemistry Manager functions as the Radiation Protection Manager (RPM), when designated.

Radiation Protection/Chemistry Manager duties include:

- Implementation of the radiation protection and plant ALARA programs. This includes the Radiological Effluent Technical Specifications/Standard Radiological Effluent Controls program, the Offsite Dose Calculation Manual, the Radiological Environmental Monitoring Program and the Process Control Program as well as all the implementing procedures for each program;
- Provision of radiological and chemistry input into work and design planning;
- Tracking, analysis, and correction of trends in radiation work performance;
- Scheduling and conduct of radiological surveys, contamination sample collection, and determining contamination levels;
- Assignment of work restrictions through radiation work permits;
- Maintenance of required records in accordance with federal and state codes; and
- Maintenance of primary and secondary plant chemistry in accordance with established program requirements.

In this capacity as the RPM and in accordance with approved procedures, the Radiation Protection/Chemistry Manager has authority to direct or delegate direction of radiation protection staff to stop work or order an area evacuated when, the radiation conditions warrant such an action and the action is consistent with plant safety.