Greg Gibson
Vice President, Regulatory Affairs

750 East Pratt Street, Suite 1600
Baltimore, Maryland 21202

UniStar
NUCLEAR ENERGY

10 CFR 50.4
10 CFR 52.79

October 15, 2010

UN#10-265

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 262, Requested Licenses and Authorized Uses

References:
1) Surinder Arora (NRC) to Robert Poche (UniStar Nuclear Energy), "FINAL RAI 262 NSIR EP 5001" email dated September 3, 2010

2) UniStar Nuclear Energy Letter UN#10-258, from Greg Gibson to Document Control Desk, U.S. NRC, Response to RAI 262, Requested Licenses and Authorized Uses, dated October 12, 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 September 3, 2010 (Reference 1). This RAI addresses Requested Licenses and Authorized Uses, as discussed in the Calvert Cliffs Nuclear Power Plant (CCNPP) Unit 3 Combined License Application (COLA) Part 1, General Information, Section 1.1.3, Revision 6.

Reference 2 provided a November 19, 2010 schedule for the response for Question 01-11. The enclosure provides our response to RAI 262, Question 01-11, 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.

D096
NRO

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

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 October 15, 2010

Greg Gibson

Enclosure: Response to NRC Request for Additional Information RAI 262, Question 01-11, Requested Licenses and Authorized Uses, 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/RDS/mdf

Enclosure

Response to NRC Request for Additional Information
RAI 262, Question 01-11, Requested Licenses and Authorized Uses,
Calvert Cliffs Nuclear Power Plant, Unit 3

RAI 262

Question 01-11

Title: Emergency Planning for Requested Licenses Issued Under Parts 30 and 40
Basis: 10 CFR 30.32(i)(1)(i) and (ii); 10 CFR 40.32(j)(1)(ii)
Acceptance Criterion: See above

A. Identify the physical form of the byproduct material that will be received, possessed, or used at CCNPP Unit 3. If the byproduct material is in unsealed form, on foils or plated sources, or sealed in glass, does it exceed the quantities in Schedule C in 10 CFR 30.72? If the quantities exceed Schedule C, provide either an evaluation showing the maximum dose to a person offsite would be less than 1 rem dose equivalent or 5 rems to the thyroid [10 CFR 30.32(i)(2)] or provide an emergency plan that meets the requirements of 10 CFR 30.32(i)(3). If compliance through the requirements of 10 CFR 30.32(i)(3) is chosen, address how the implementation of the emergency plan prior to the receipt of byproduct material will be accomplished and reflect the implementation in FSAR Table 13.4.1, "Operational Programs Required by NRC Regulations and program Implementations." If the byproduct material will be in sealed form, discuss the need to address 10 CFR Part 30 in the Emergency Planning portion of Table 13.4.1, or remove the reference from the Emergency Planning portion of the table.

B. In Section 1.1.3, "Requested Licenses and Authorized Uses" of Chapter 1 of the COL application, specific source materials and associated quantities are not identified. The need to know whether or not uranium hexafluoride will be received, possessed or used is necessary to determine the need for an emergency plan (either limited scope or fully implemented). Therefore, in accordance with 10 CFR 40.31(j)(1), does the request for a Part 40 license involve authorization to receive, possess, or use uranium hexafluoride in excess of 50 kilograms in a single container or 1000 kilograms total? If either of the above quantities are exceeded, provide either an evaluation showing that the maximum intake of uranium by a member of the public due to a release would not exceed 2 milligrams [see 10 CFR 40.31(j)(2)] or an emergency plan for responding to the radiological hazards of an accidental release of source material and to any associated chemical hazards related to the material [see 10 CFR 40.31(j)(3)]. If the quantities of source material identified above are not exceeded, revise the Emergency Planning portion of Table 13.4.1 accordingly.

Response

The UniStar Nuclear Energy response to RAI 248, Question 01-10[1], included the following statement, ". . .to ensure compliance with the license and requirements relative to 10 CFR Parts 30, 40, and 70, the milestones associated with the fire protection program, non-licensed operator training program, emergency plan and security program will be updated." Additionally, proposed revisions to FSAR Table 13.4-1 were provided in the COLA Impacts section of the response.

---

1 G. Gibson (UniStar Nuclear Energy) to Document Control Desk (NRC), Letter UN#10-199, "Response to Request for Addition Information for the Calvert Cliffs Nuclear Power Plant, Unit 3, RAI 248, Introduction and General Description of the Plant," dated July 20, 2010.

However, per FSAR Section 12.2.1, no byproduct sources have been identified that exceed the quantities in Schedule C of 10 CFR Part 30.72. Therefore, an emergency plan in accordance with 10 CFR 30.32(i)(3) is not necessary. FSAR Table 13.4-1 will be revised to remove all references to 10 CFR 30.32.

Additionally, uranium hexafluoride will not be received, possessed or used. Therefore, an emergency plan in accordance with 10 CFR 40.31(j)(1) is not necessary. FSAR Table 13.4-1 will be revised to remove all references to 10 CFR 40.31.

Lastly, to further address RAI 248, Question 01-10, FSAR Chapter 1 is being revised to state that the FSAR was also submitted to support the Materials Licenses requested in the COL Application Letter to receive, possess and use byproduct, source and special nuclear material under 10 CFR 30, 10 CFR 40 and 10 CFR 70, respectively.

COLA Impact

FSAR Section 1.1 is being updated as follows:

1.1 INTRODUCTION

This section of the U.S. EPR FSAR is incorporated by reference with the following supplements.

This Final Safety Analysis Report is submitted to the Nuclear Regulatory Commission as part of an application for a Class 103 combined license (COL) to construct and operate a nuclear power facility under the provisions of 10 CFR 52, Subpart C. {This FSAR is also being submitted to the Nuclear Regulatory Commission to support the necessary Materials Licenses requested in the COL Application Letter (UNE, 2008) to receive, possess and use byproduct, source and special nuclear material under 10 CFR 30, 10 CFR 40 and 10 CFR 70, respectively.} This nuclear power facility is designated {Calvert Cliffs Nuclear Power Plant (CCNPP) Unit 3.} This FSAR incorporates the FSAR prepared for the design certification application for the AREVA evolutionary pressurized water reactor, (herein referred to as the U.S. EPR). AREVA NP, the entity sponsoring the design certification application for the U.S. EPR, submitted Revision 1 of the U.S. EPR design certification application, including the U.S. EPR FSAR, to the NRC on May 29, 2009 (AREVA, 2009)

FSAR Section 1.1.7 is being updated as follows:

1.1.7 REFERENCES

NRC, 2007. Combined License Applications for Nuclear Power Plants (LWR Edition), Regulatory Guide 1.206, Revision 0, U.S. Nuclear Regulatory Commission, March 2007.}

UNE, 2008. UniStar Nuclear Energy Letter, G. Gibson (UniStar Nuclear Energy) to U.S. Nuclear Regulatory Commission, UN#08-003, Submittal of Revision 2 to the Partial Combined License Application for the Calvert Cliffs Nuclear Power Plant, Unit 3, dated March 14, 2008.}

The proposed FSAR Table 13.4-1, Items 8, 11, 14 and 15 revisions provided in response to RAI 248, Question 01-10[1] are being updated as follows. Note that additional changes to FSAR Table 13.4-1, Item 15, Security Program (provided in a subsequent RAI response), are not reflected in the enclosed COLA markup.

Table 13.4-1—{Operational Programs Required by NRC Regulations and Program Implementation}

Item	Program Title	Source (Required By)	FSAR Section	Implementation Milestones	Requirements
1	In-service Inspection Program	10 CFR 50.55a(g)	3.8.1.7.2 5.2.4 6.6 5.4.2.5 Note 1	Prior to commercial service	10 CFR 50.55a(g) ASME XI IWA 2430
2	In-service Testing Program	10 CFR 50.55a(f); 10 CFR Part 50, App. A	3.9.6 5.2.4 Note 1	After generator online on nuclear heat	10 CFR 50.55a(f) ASME OM Code
3	Environmental Qualification Program	10 CFR 50.49(a)	3.11 Note 1	Prior to initial fuel load	License Condition
4	Preservice Inspection Program	10 CFR 50.55a(g)	3.8.1.7.2 5.2.4 6.6 5.4.2.5 Note 1	Completion prior to initial plant startup	10 CFR 50.55a(g) ASME Code Section XI IWB-2200 IWC-2200, IWD-2200, IWE-2200, IWF-2210, and IWL-2210
5	Reactor Vessel Material Surveillance Program	10 CFR 50.60; 10 CFR 50, App. H	5.3.1 Note 1	Prior to initial fuel load	License Condition
6	Preservice Testing Program	10 CFR 50.55a(f)	3.9.6 5.2.4 Note 1	Prior to initial fuel load	License Condition
7	Containment Leakage Rate Testing Program	10 CFR 50.54(o); 10 CFR 50, App. A (GDC 53); 10 CFR 50, App. J	6.2.6 Note 1	Prior to initial fuel load	10 CFR50, App. J, Option B, Section III.A

Table 13.4-1—{Operational Programs Required by NRC Regulations and Program Implementation}

Item	Program Title	Source (Required By)	FSAR Section	Implementation Milestones	Requirements
8	Fire Protection Program	10 CFR 50.48	9.5.1 Note 1	Prior to initial fuel receipt for elements of the Fire Protection Program necessary to support receipt and storage of fuel onsite. Prior to initial fuel load for elements of the Fire Protection Program necessary to support fuel load and plant operation.	License Condition
	~~(portions applicable to SNM)~~	~~10 CFR 30.32~~ ~~10 CFR 40.31~~		~~Prior to initial receipt of byproduct, source, or special nuclear materials (excluding Exempt Quantities as described in 10 CFR 30.18)~~	~~10 CFR 30.32(a)~~ ~~10 CFR40.31(a)~~
9	Process and Effluent Monitoring and Sampling Program:		Note 1		
	Radiological Effluent Technical Specifications /Standard Radiological Effluent Controls	10 CFR 20.1301 and 20.1302; 10 CFR 50.34a; 10 CFR 50.36a; 10 CFR 50, App. I, Sect. II and IV	11.5	Prior to initial fuel load	License Condition
	Offsite Dose Calculation Manual	Same as above	11.5	Prior to initial fuel load	License Condition
	Radiological Environmental Monitoring Program	Same as above	11.5	Prior to initial fuel load	License Condition
	Process Control Program	Same as above	11.4	Prior to initial fuel load	License Condition

Table 13.4-1—{Operational Programs Required by NRC Regulations and Program Implementation}

Item	Program Title	Source (Required By)	FSAR Section	Implementation Milestones	Requirements
10	Radiation Protection Program	10 CFR 20.1101 10 CFR 20.1406	12.1 12.5 Note 1	Prior to receipt of by-product, source, or special nuclear material (excluding Exempt Quantities as described in 10 CFR 30.18) for those elements of the Radiation Protection Program (RPP) necessary to support such receipt Prior to receipt of fuel onsite for those elements of the RPP necessary to support such receipt Prior to initial fuel load for those elements of the RPP necessary to support fuel load and plant operation Prior to first shipment of radioactive waste for those elements of the RPP necessary to support such shipment	License Condition
11	Non-licensed Plant Staff Training Program ~~(portions applicable to non-exempt sources and SNM)~~	10 CFR 50.120; 10 CFR 52.79(a)(33) ~~10 CFR 30.32~~ ~~10 CFR 40.31~~	13.2	18 months prior to scheduled date of initial fuel load ~~Prior to initial receipt of byproduct, source, or special nuclear materials (excluding Exempt Quantities as described in 10 CFR 30.18)~~	10 CFR 50.120(b) ~~10 CFR 30.32(a)~~ ~~10 CFR40.31(a)~~
12	Reactor Operator Training Program	10 CFR 55.13; 10 CFR 55.31; 10 CFR 55.41; 10 CFR 55.43; 10 CFR 55.45	13.2	18 months prior to scheduled date of initial fuel load	License Condition
13	Reactor Operator Requalification Program	10 CFR 50.34(b); 10 CFR 50.54(i); 10 CFR 55.59	13.2	Within 3 months after issuance of the COL or the date the Commission makes the finding under 10 CFR 52.103(g)	10 CFR 50.54(i-1)

Table 13.4-1—{Operational Programs Required by NRC Regulations and Program Implementation}

Item	Program Title	Source (Required By)	FSAR Section	Implementation Milestones	Requirements
14	Emergency Plan	10 CFR 50.47; 10 CFR 50, App. E	13.3	Full participation exercise conducted within 2 years of scheduled date for initial fuel load	10 CFR Part 50, Appendix E, Section IV. F.2a(ii)
				Onsite exercise conducted within one year of scheduled date for initial fuel load	10 CFR Part 50, Appendix E, Section IV. F.2a(ii)
				Detailed implementing procedures submitted no less than 180 days prior to scheduled date for initial fuel load	10 CFR Part 50 Appendix E, Section V
	~~(portions applicable to non-exempt sources and SNM)~~	~~10 CFR 30.32~~ ~~10 CFR 40.31~~		~~Prior to initial receipt of byproduct, source, or special nuclear materials (excluding Exempt Quantities as described in 10 CFR 30.18)~~	~~10 CFR 30.32(a)~~ ~~10 CFR40.31(a)~~

Table 13.4-1—{Operational Programs Required by NRC Regulations and Program Implementation}

Item	Program Title	Source (Required By)	FSAR Section	Implementation Milestones	Requirements
15	Security Program	10 CFR 50.34(c)	13.6		
	Physical Security Program	10 CFR 73.55; 10 CFR 73.56; 10 CFR 73.57;	13.6	Prior to initial receipt of fuel	License Condition
	Safeguards Contingency Program	10 CFR 50.34(d); 10 CFR 73, App. C	13.6	Prior to initial receipt of fuel	License Condition
	Training and Qualification Program	10 CFR 73, App. B	13.6	Prior to initial receipt of fuel	License Condition
	Cyber Security Plan	10 CFR 73.54	13.6	Prior to initial receipt of fuel	License Condition
	Fitness for Duty Program (Construction – Management and Oversight Personnel)	10 CFR Part 26 Subparts A-H, N, and O	13.7	Prior to initiating construction of safety-related or security-related SSCs	License Condition
	Fitness for Duty Program (Construction – Workers & First Line Supervisors)	10 CFR Part 26 Subpart K	13.7	Prior to initiating construction of safety-related or security-related SSCs	License Condition
	Fitness for Duty Program (Operation)	10 CFR 26	13.7	Prior to initial receipt of fuel	License Condition
	~~(portions applicable to non-exempt sources and SNM)~~	~~10 CFR 30.32~~ ~~10 CFR 40.31~~		~~Prior to initial receipt of byproduct, source, or special nuclear materials (excluding Exempt Quantities as described in 10 CFR 30.18)~~	~~10 CFR 30.32(a)~~ ~~10 CFR40.31(a)~~
16	Quality Assurance Program – Operation	10 CFR 50.54(a); 10 CFR Part 50, App. A (GDC 1); 10 CFR Part 50, App. B	17.5	Implemented (Note 2)	N/A Note 2

Table 13.4-1—{Operational Programs Required by NRC Regulations and Program Implementation}

Item	Program Title	Source (Required By)	FSAR Section	Implementation Milestones	Requirements
17	Maintenance Rule	10 CFR 50.65	17.7	Prior to authorization to load fuel per 10 CFR 52.103(g)	10 CFR 50.65(a)(1)
18	Motor-Operated Valve Testing	10 CFR 50.55a(b)(3)(ii)	3.9.6 Note 1	Prior to initial fuel load	License Condition
19	Initial Test Program	10 CFR 50.34; 10 CFR 52.79(a)(28)	14.2 Note 1	Prior to conduct of activities described in the Initial Test Program	License Condition

Note 1 The corresponding U.S. EPR FSAR sections are incorporated by reference and include additional information regarding these programs.

Note 2 The Quality Assurance Program Description covers all phases of the facility's life, including design, construction, and operation. Implementation of the Quality Assurance Program Description has occurred. As such, a schedule for delayed implementation, after COL issuance, of the Quality Assurance Program Description for the operational phase and the corresponding license condition are not required.

"Construction includes those activities authorized by the issued COL or Limited Work Authorization. This does not include site preparation activities such as clearing, grubbing, excavation, demolition of existing structures, etc.