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Subject: UniStar Nuclear Energy, NRC Docket No. 52-016
Calvert Cliffs Nuclear Power Plant, Unit 3, Calvert County, Maryland
NUREG-1936, Draft Environmental Impact Statement for the Combined License for
Calvert Cliffs Nuclear Power Plant Unit 3 Comments

References: (1) U.S. NRC Draft Report for Comment, "Environmental Impact Statement for the
Combined License (COL) for Calvert Cliffs Nuclear Power Plant Unit 3,"
NUREG-1936, U.S. NRC and U.S. Army Corps of Engineers, dated April 2010.
(2) Nuclear Regulatory Commission, Docket No. 52-016 [NRC-2008-0250], Notice
of Availability of the Draft Environmental Impact Statement for the Combined
License for Calvert Cliffs Nuclear Power Plant Unit 3, dated April 15, 2010.

The purpose of this letter is to provide comments on the draft Environmental Impact Statement
(EIS) for the COL for Calvert Cliffs Nuclear Power Plant Unit 3, Reference 1, made available by
the NRC, Reference 2, and posted on Page 21626 of the *Federal Register* Notice dated
April 26, 2010. The enclosure to this letter contains UniStar Nuclear Energy review comments,
by section, on the draft EIS.

This letter contains no new commitments.

F-RDS = ADM-03

SOVSI Review Complete
Template = ADM-013

Add = L. Quinn (LMQ1)
S. Imboden (SXY)

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If there are any questions regarding this transmittal, please contact me at (410) 470-4205, or Mr. Dimitri Lutchenkov at (410) 470-5524.

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

Executed on July 6, 2010

A handwritten signature in black ink, appearing to read 'Greg Gibson', with a long horizontal flourish extending to the right.

Greg Gibson

Enclosure - UniStar Comments on Environmental Impact Statement for the Combined License (COL) for Calvert Cliffs Nuclear Power Plant Unit 3 (NUREG-1936, Vol. 1), July 6, 2010

cc: Kathy Anderson, U.S. Army Corps of Engineers
Surinder Arora, NRC Project Manager, U.S. EPR Projects Branch
Woody Francis, U.S. Army Corps of Engineers
Silas Kennedy, U.S. NRC Resident Inspector, CCNPP, Units 1 and 2
Loren Plisco, Deputy Regional Administrator, NRC Region II
Laura Quinn, NRC Environmental Project Manager, U.S. EPR COL Application
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U.S. NRC Region I Office

Enclosure

**UniStar Comments on
Environmental Impact Statement for the Combined License (COL)
for Calvert Cliffs Nuclear Power Plant Unit 3 (NUREG-1936, Vol. 1)
July 6, 2010**

**UniStar Comments on
Environmental Impact Statement for the Combined License (COL) for Calvert Cliffs Nuclear Power Plant Unit 3 (NUREG-1936, Vol. 1)**

DEIS Section	DEIS Text	UniStar Comment
3.2.2.5	17 to the Waugh Chapel substation in Anne Arundel County. The south route consists of three 18 500-kV lines that connect to the Mirant Corporation Chalk Point Generating Station in Prince 19 George's County (Figure 3-5).	There is only one 500 kV transmission line in the South Circuit as explained in ER Section 3.7. "The existing transmission system consists of two circuits, the North Circuit which connects the CCNPP site to the Waugh Chapel Substation in Anne Arundel County and the South Circuit that connects the CCNPP site to the Mirant Corporation Chalk Point Generating Station in Prince George's County. The North Circuit is composed of two separate three-phase 500 kV transmission lines run on a single right-of-way from the CCNPP site, while the South Circuit is a single three-phase 500 kV line."
3.3.1.4	15 About 4650 ft ² (0.11 ac) of the Bay bottom would be armored. Finally, the temporary sheet-pile 16 wall around the intake pipes would be removed, allowing the area to flood and submerge the 17 pipes. Building of the intake system is expected to take about 4 months.	At the current stage of construction planning, UniStar estimates that the intake structure will take 15 – 18 months to construct.
3.3.1.7	22 Refurbishment is expected to take about 2 weeks. Once the barge dock area has been	At the current stage of construction planning, UniStar estimates that the barge dock area will take approximately 6 months to refurbish.
3.3.1.13	1 3.3.1.13 Parking 2 Parking areas would be graded and paved.	Parking areas will be graded and "gravel". (not "paved")
3.4.2.2	1 3.4.2.2 Essential Service Water System 2 The ESWS is a closed-loop system that provides cooling water to the component cooling water 3 system (CCWS) heat exchangers and the cooling jackets of the emergency diesel generators 4 (UniStar 2009a). The ESWS dissipates waste heat during normal operations; operational 5 events, such as refueling and shutdown; and accidents. The ESWS consists of four safety 6 related mechanical draft cooling towers, each with a dedicated CCWS heat exchanger and 7 water storage basin. A fifth, non-safety-related tower is available for use during severe accident 8 conditions. During normal operation, the basins would be supplied with non-safety-related 9 makeup water from the desalination plant. During a design basis accident, the basins would be 10 supplied with safety-related makeup water from the Chesapeake Bay via the UHS intake 11 structure.	The EPR design has 4 ESW cooling towers. The design does not include a 5th ESWS cooling tower.
4.2	15 4.2 Water-Related Impacts 16 Water-related impacts involved in building a nuclear power plant are similar to impacts that 17 would be associated with any large industrial facility development project and similar to those 18 realized while building Units 1 and 2. Prior to initiating onsite activities, including any site 19 preparation work, UniStar would be required to obtain the appropriate authorizations regulating 20 alterations to the hydrological environment. These authorizations would likely include:	The list after Line 20 presents a number of water-related permits. NRC should consider including the Section 404 permit. This permit which is related to discharge of dredge material is discussed elsewhere, but could be listed here for completeness.

**UniStar Comments on
Environmental Impact Statement for the Combined License (COL) for Calvert Cliffs Nuclear Power Plant Unit 3 (NUREG-1936, Vol. 1)**

DEIS Section	DEIS Text	UniStar Comment
4.3.1.3 (pg 4-21)	<p>25 Showy Goldenrod (<i>Solidago speciosa</i>)</p> <p>26 The State of Maryland lists the showy goldenrod as a threatened species that prefers open 27 areas in full sun. Large patches of showy goldenrod observed within the proposed power block 28 area at several locations around Camp Conoy would be removed or transplanted. Adverse 29 impacts could be avoided, but UniStar chose to build components of Unit 3 within previously 30 disturbed old field areas, which are showy goldenrod habitat, to limit impacts to forests and 31 wetlands. The applicant has proposed a mitigation and monitoring plan to mitigate the impacts, 32 and the plan would be conducted in accordance with the Maryland Department of Natural 33 Resources guidelines for rare, threatened, and endangered plant reintroductions (MDNR 2008). 34 Showy goldenrod rhizomes (root structure) and seeds would be collected from at least 10 1 locations within the disturbance footprint and replanted/resewn in an attempt to preserve local 2 genetic diversity. A survey of the mitigation planting site would occur before mitigation and 3 annually in September–October for five continuous years (MDNR PPRP 2008). A baseline 4 report and five annual reports, including transplant results, photo-documentation, site maps, 5 problem descriptions, and actions taken, would be submitted to the Maryland DNR (2008a). 6 The Maryland DNR generally discourages transplanting as a means of avoiding impact to a 7 listed plant species. Although success of the proposed mitigation actions cannot be 8 determined, showy goldenrod is a plant commonly and successfully sewn into plantings, 9 gardens, and prairie restorations (Kentucky Native Plant Society 2005). Therefore, some level 10 of success is likely to result from the proposed mitigation actions. Net effects to the showy 11 goldenrod would be noticeable but would not jeopardize the continued existence of this species 12 on the site, assuming some transplants are successful.</p>	<p>MDNR concurred in writing on November 16, 2009 with UniStar's position that, per regulations, mitigation is not required. As such, concerns with discussions regarding establishment of showy goldenrod in transmission corridors would not be applicable. UniStar will update the COL, in a future revision, to reflect that relocation of showy goldenrod is not required per regulations and, as such, will not be implemented as part of the CC3 project.</p>

**UniStar Comments on
Environmental Impact Statement for the Combined License (COL) for Calvert Cliffs Nuclear Power Plant Unit 3 (NUREG-1936, Vol. 1)**

DEIS Section	DEIS Text	UniStar Comment
4.3.1.3 (pg 4-24)	<p>32 <i>Bald Eagle (Haliaeetus leucocephalus)</i></p> <p>33 Four active bald eagle nests are known to occur on the Calvert Cliffs site, three of which were 34 occupied in 2007. Proposed activities do not encroach within 1500 ft of the three nests, well 35 beyond the 660-ft buffer recommended for commercial building activities that would occur within 1 sight of active bald eagle nests (FWS 2007). Therefore, the potential to disturb eagles using 2 these three nest sites would be minimal. However, a fourth nest would have to be removed. 3 The fourth eagle nest is located within the proposed power block site, and the tree containing 4 the nest would have to be removed. The applicant would have to obtain an authorization under 5 the Bald and Golden Eagle Protection Act for taking of eagles from the FWS (73 FR 29075). An 6 incidental take permit is also required from the State of Maryland, and an application for this 7 permit was submitted to the Maryland DNR in July 2008 (MDNR PPRP 2008). The permit 8 would also allow take of any additional eagle nests within the proposed disturbance area and 9 within 0.25 mi of the disturbance boundary, although none are known to occur within this area. 10 The applicant has proposed to protect a 100-ac tract of forested habitat on the south portion of 11 the Calvert Cliffs site that has had an active eagle nest site since 2000 and was occupied by an 12 eagle pair in 2008 (MDNR PPRP 2008). No tree harvesting would occur within the protected 13 100-ac tract, and human activity would be limited for 15 years (MDNR PPRP 2008). Although 14 mitigation measures would be taken, bald eagle productivity on the site would be adversely 15 affected by proposed Unit 3 because at least one nest would be removed, noise and other 16 construction and preconstruction activities would disturb eagles protecting nests, and trees 17 suitable for future nests would be removed. Regional eagle populations are stable and have 18 been increasing as evidenced by the Federal delisting of the bald eagle, but further mitigation 19 may be required by FWS or Maryland DNR.</p> <p>10 The applicant has proposed to protect a 100-ac tract of forested habitat on the south portion of 11 the Calvert Cliffs site that has had an active eagle nest site since 2000 and was occupied by an 12 eagle pair in 2008 (MDNR PPRP 2008). No tree harvesting would occur within the protected 13 100-ac tract, and human activity would be limited for 15 years (MDNR PPRP 2008).</p>	<p>Both the state permit (Maryland Department of Natural Resources Wildlife and Heritage Service Endangered Species Permit Number 45135) and the federal permit (U.S. Fish and Wildlife Service Eagle Scientific Collecting Permit Number MB207511-0) are in place and include commensurate mitigation as required by governing agency. There is no condition in the permits related to the need for additional mitigation and, accordingly, no additional mitigation has been requested or needed by governing agencies.</p> <p>Furthermore, on April 5, 2010, the bald eagle was removed from Maryland's list of threatened and endangered species and, as such, does not require mitigation. The bald eagle was also removed from the federal endangered species list in August 2007. Removal from these official lists is a result of the tremendous recovery of this former endangered species. The bald eagle population is now fully recovered. Bald eagles are regularly seen throughout Maryland, especially near the Chesapeake Bay and its tidal rivers.</p>
		<p>The EIS should be changed to note that a 100 acre eagle conservation area has been negotiated and will be deeded accordingly.</p>
4.3.1.5	<p>21 Based on information provided by UniStar and the review team's independent evaluation, the 22 review team concludes that the impacts from the combined construction and preconstruction 23 activities for proposed Unit 3 to terrestrial ecosystems of the Calvert Cliffs site would be 24 MODERATE for important species, including Federally and State-listed species, and wildlife 25 habitats, including wetlands.</p>	<p>It is recommended that the EIS reflect that mitigation for most if not all terrestrial and aquatic impacts have been identified and agreed to including; tiger beetles, bald eagle, showy goldenrod, and wetlands.</p>

**UniStar Comments on
Environmental Impact Statement for the Combined License (COL) for Calvert Cliffs Nuclear Power Plant Unit 3 (NUREG-1936, Vol. 1)**

DEIS Section	DEIS Text	UniStar Comment
5.1.1	<p>1 5.1.1 The Site and Vicinity</p> <p>2 Onsite land-use impacts from operation of proposed Unit 3 are expected to be minimal.</p> <p>3 Proposed Unit 3 would use one mechanical draft cooling tower with plume abatement to</p> <p>4 dissipate waste heat (UniStar 2009a). As discussed in Sections 5.3.1.1 and 5.7.1, operation of</p> <p>5 the cooling system would have minimal impacts on vegetation. In addition, a small area within</p> <p>6 the Chesapeake Bay would experience impacts from the operation of proposed Unit 3. Small</p> <p>7 portions of the Captain John Smith Chesapeake National Historic Trail and the Star-Spangled</p> <p>8 Banner National Historic Trail would overlap with the in-water exclusion area required for the</p> <p>9 operation of Unit 3. An in-water exclusion area already exists at the site for the operation of</p> <p>10 existing Units 1 and 2; therefore, the slight expansion of the already existing exclusion area</p> <p>11 would result in negligible impacts to these trails.</p> <p>12 Based on the information provided by UniStar and the review team's own independent</p> <p>13 evaluation, the review team concludes that the land-use impacts of operation would be SMALL,</p> <p>14 and additional mitigation would not be warranted.</p>	<p>The John Smith Trail is a water trail and the information relative to project impacts is appropriate as the trail passes by the plant in the Chesapeake Bay. However, the Star Bangled Trail is new and the trail segments have not been defined. It has been described as a scenic driving tour which would in no way be impacted by the project's operation. Should a segment be defined that does pass by the plant in the Chesapeake, then the project impacts as described in the DEIS would be appropriate.</p>
5.3.1.3	<p>24 have any effect on plants. The showy goldenrod only occurs in open habitats, and vegetation</p> <p>25 management maintains the transmission line corridors as open habitat potentially suitable for</p> <p>26 showy goldenrod. The spurred butterfly pea is a habitat generalist and could occur in the open</p> <p>27 or under a forest canopy, and Shumard's oak could become established within transmission line</p> <p>28 corridors if maintenance ceased. However, regular vegetation management within transmission</p> <p>29 line corridors would likely preclude showy goldenrod, spurred butterfly pea and Shumard's oak</p> <p>30 from becoming established within transmission line corridors. Since none of these species are</p> <p>31 currently known to occur within the transmission line corridors, adverse impacts to State-listed</p> <p>32 plant species from the operation of the proposed Unit 3 would be minimal. For these reasons,</p>	<p>MDNR concurred in writing on November 16, 2009, with UniStar's position that, per regulations, mitigation is not required. As such, concerns with discussions regarding establishment of showy goldenrod in transmission corridors would not be applicable. UniStar will update the COL, in a future revision, to reflect that relocation of showy goldenrod is not required per regulations and, as such, will not be implemented as part of the CC3 project.</p>
5.4.4.1	<p>28 A critical area not addressed by the TIA is access from the south over the Thomas Johnson</p> <p>29 Memorial Bridge that connects Calvert and St. Mary's Counties, where the four-lane MD State</p> <p>30 Route 2/4 narrows to two lanes across the bridge. As reported in Section 2.5.2.3, the Maryland</p> <p>31 State Highway Administration and the Federal Highway Administration expect to complete the</p> <p>32 planning process in 2010 and construction by 2020. The construction date for the bridge is after</p> <p>33 the Unit 3 project is projected to have been completed. This limits access to the counties that</p> <p>34 lie to the west (principally St. Mary's and Charles) and would have the effect of channeling the</p> <p>35 traffic flow to the north and south in Calvert County, which increases the need to implement the</p> <p>36 mitigation measures discussed in the TIA.</p>	<p>It is recommended that the EIS reflect that the TIS utilizes an 80/20 split (north/south) for construction traffic as required by the SHA. With this split of construction-related traffic, the majority arrives from and leaves to the north. As such, the SHA has concurred that the scope of the TIS should include only the two nearest southern intersections as they would encompass the extent of potentially affected roads.</p>

**UniStar Comments on
Environmental Impact Statement for the Combined License (COL) for Calvert Cliffs Nuclear Power Plant Unit 3 (NUREG-1936, Vol. 1)**

DEIS Section	DEIS Text	UniStar Comment
7.3.1.3	<p>22 The showy goldenrod (<i>Solidago speciosa</i>), a Maryland State-threatened plant that grows in 23 open areas, could benefit from activities that fragment the forested landscape. It is not known if 24 this plant was affected by the building of CCNPP Units 1 and 2. However, activities related to 25 proposed Unit 3 would affect patches of this plant found near Camp Conoy, and mitigation has 26 been proposed. Projects such as the Cove Point LNG facility expansion may have also affected 27 this species if it occurred within the existing pipeline corridor. However, widening of the pipeline 28 may result in a net increase in suitable, open habitat for showy goldenrod. The MAPP 29 transmission line may also create habitat for this species by expanding and maintaining open 30 habitats that would normally reforest through succession. Subsequent vegetation management 31 would preclude establishment in the newly maintained portion of the ROW. Continued 32 urbanization and development could also result in additional old field habitat that would allow 33 this species to spread. Other projects and activities listed in Table 7-1 are not expected to 34 affect the showy goldenrod.</p>	<p>MDNR concurred in writing on November 16, 2009, with UniStar's position that, per regulations, mitigation is not required. As such, concerns with discussions regarding establishment of showy goldenrod in transmission corridors would not be applicable. UniStar will update the COL, in a future revision, to reflect that relocation of showy goldenrod is not required per regulations and, as such, will not be implemented as part of the CC3 project.</p>
7.9	<p>15 power plant gets smaller as the distance from that plant increases. However, the combined risk 16 at any location within 50 mi of the VCSNS site would be bounded by the sum of risks for all 17 these operating and proposed nuclear power plants. Even though there would be potentially</p>	<p>In Section 7.9, Postulated Accidents, there appears to be a typographical error in the discussion of cumulative impacts within the 50-mile ROI. The reference to the "VCSNS" site should be changed to the "CCNPP" site.</p>
10.4.1.3	<p>1 10.4.1.3 Terrestrial and Aquatic Biota</p> <p>2 Construction and preconstruction activities would permanently convert some portions of 3 terrestrial and aquatic habitats, which would temporarily adversely affect the abundance and 4 distribution of local terrestrial and aquatic flora and fauna on the Calvert Cliffs site. Irrecoverable 5 commitment of resources include losses of approximately 12 ac of nontidal wetlands, 34 ac of 6 high-value habitat for forest interior dwelling species, filling of Camp Conoy Fishing Pond, and 7 conversion of approximately 6 ac of subtidal Bay soft-bottom habitat to rocky habitat. Portions 8 of designated essential fish habitat and some individuals of Federally managed fish species 9 would be lost during construction, preconstruction, and operation. However, enough suitable 10 habitat likely exists elsewhere in the area that such changes would noticeably alter, but would 11 not destabilize, regional populations despite localized permanent loss of habitat and some 12 individuals. Dredging and pipelaying would temporarily affect benthic habitats. Most of these 13 would recover, although periodic maintenance dredging would interrupt complete recovery near 14 the barge dock. No irretrievable loss of resources detectable at the population level would be 15 expected as a result of operations, and any impacts as a result of operations would cease post 16 operations. The removal of an active bald eagle nest and subsequent abandonment by the pair 17 using the nest may result in the permanent loss of bald eagle productivity. Grading and filling of 18 wetlands would result in the loss of wetland function. The majority of terrestrial and aquatic 19 habitat losses are due to preconstruction activities.</p>	<p>The subject eagle nest was not active in the 2009 season and was previously occupied by a young pair that would not necessarily have returned to this nest. In addition, both the state permit (Maryland Department of Natural Resources Wildlife and Heritage Service Endangered Species Permit Number 45135) and the federal permit (U.S. Fish and Wildlife Service Eagle Scientific Collecting Permit Number MB207511-0) are in place and include commensurate mitigation as required by governing agency. The federal permit is a non-lethal scientific take permit which includes a multi-year eagle habitat enhancement program intended to promote eagle productivity. As such, UniStar believes that the subject text should reflect these conditions.</p>

**UniStar Comments on
Environmental Impact Statement for the Combined License (COL) for Calvert Cliffs Nuclear Power Plant Unit 3 (NUREG-1936, Vol. 1)**

DEIS Section	DEIS Text	UniStar Comment
10.4.1.5	<p>24 10.4.1.5 Historic and Cultural Resources</p> <p>25 Irreversible commitments to historic and cultural resources are discussed in Chapter 4. These 26 resources include two historic buildings/structures (Baltimore & Drum Point Railroad (CT-1259) 27 and Camp Conoy (CT-1312)) and one archaeological site (18CV474). The State Historic 28 Preservation Office (SHPO) requested an MOA be prepared between UniStar, the Corps, and 29 the Maryland SHPO that stipulates agreed-upon mitigation measures appropriate to each 30 property (MHT 2009). The MOA was finalized on March 16, 2010 (USACE 2010). Nearly all 31 loss of irreversible commitments would be attributable to preconstruction activities.</p>	It appears that the word "commitments" should be "impacts".