MARYLAND
DEPARTMENT OF
NATURAL RESOURCES

Martin O'Malley, Governor
Anthony G. Brown, Lt. Governor
John R. Griffin, Secretary
Joseph P. Gill, Deputy Secretary

June 17, 2011

Chief, Rules and Directives Branch
Division of Administrative Services
Office of Administration
Mailstop TWB-05-B01M
Washington, DC 20555-0001

Dear Sir or Madam:

Thank you for the opportunity to review and comment on the Final Environmental Impact Statement for the proposed Calvert Cliffs Nuclear Power Plant Unit 3. Our comments are attached. If you have any questions, please give me a call at 410-260-8661.

Sincerely,

Susan T. Gray
Manager, Nuclear Programs
Power Plant Assessment Division
Maryland Department of Natural Resources

Comments to the NRC Regarding the Final EIS for Proposed Calvert Cliffs Unit 3 (NUREG-1936), dated May 2011

Prepared by Maryland Department of Natural Resources Power Plant Research Program and Maryland Department of the Environment

Ground Water (Section 5.2.2.2)

Section 5.2.2.2 of the FEIS, which discusses ground water use impacts during operation, includes inaccurate statements. The following sentence is incorrect for the reasons listed below: "UniStar has requested permission from the MDE to use ground water from the Aquia aquifer at a rate of 1,250,000 gallons per day (gpd) for up to 15 days."

- UniStar has not requested permission from MDE to use ground water for the emergency backup supply. Permission would be in the form of an application to appropriate waters of the state, which has not been filed with MDE.
- UniStar is proposing in the referenced study to use the Patapsco aquifer for the back-up supply, not the Aquia aquifer.

Two additional comments are offered.

- The State does not agree with the last sentence in Section 5.2.2.2 comparing the amount of water withdrawn for the emergency supply to the amount being used for construction as the basis for evaluating impacts. The FEIS improperly compared the total volume of water withdrawn rather than the rate at which it would be withdrawn along with the time period. The method used by MDE to evaluate potential withdrawals from confined aquifers relies on using the Theis method; inputs include the rate and period of withdrawal, not the volume of withdrawal. A withdrawal of 1, 250,000 gpd for 15 days may present unacceptable impacts to other users, while a rate of 100,000 gpd for five years does not cause an unacceptable impact.

- If the FEIS is not changed and continues to indicate that the Aquia aquifer would be proposed for the emergency supply, the State does not concur that the potential impacts to the Aquia aquifer are small. For example, if an emergency lasts for 90 days, 112,500,000 gallons would be withdrawn (at a projected rate of 1,250,000 gpd). This compares to a total annual withdrawal of 36,500,000 gallons during construction (100,000 gpd x 365 days). A short term but large withdrawal of 112,500,000 gallons would create a moderate impact to the Aquia aquifer. However, if the FEIS is changed to reflect UniStar's plan to use the Patapsco aquifer for the emergency supply rather than the Aquia aquifer, the State concurs that the potential impacts to the Patapsco aquifer and other users is small. The amount of available

drawdown in the deeper Patapsco aquifer is greater, and therefore the likelihood of adverse impact to the aquifer and other users and the need for mitigation is likely to be small.

Air Quality

- The FEIS is based on the Calvert Cliffs Unit 3 (CCU3) project as outlined to the State of Maryland in the original Public Service Commission CPCN Case 9127, and generally does not reflect the CCU3 project addressed under Case No. 9218. The FEIS should address the most recent form of the project (that presented in Case 9218). Regardless, MDE requests some clarification in the FEIS that if there are any inconsistencies between the CPCN and the findings in or mitigations stemming from the FEIS, the CPCN shall take precedence.

- The FEIS (Section 4.7.1, p. 4-80, fifth paragraph and Section 5.7.2, p. 5-50, fifth paragraph) states that "the NRC will evaluate and document the need for conformity determination for the activities within its authority that require an NRC license." The fifth paragraph on this same page also states that "the Corps will evaluate and document the need for a conformity determination for the specific activities within the Corps scope of analysis that require the Corps permit action in its ROD." These statements make it unclear whether conformity in its entirety has been evaluated for the entire project. The FEIS should more clearly document that although the NRC and the U.S. Army Corps of Engineers are evaluating conformity separately for their own purposes, conformity in its entirety has been evaluated properly for the entire project.

- The FEIS (Section 4.7.1, p. 4-80, fourth paragraph) states that the Applicant will obtain certified emission reduction credits to offset any NO_x emissions exceeding the de minimis threshold (100 tons per year). The FEIS should state the total number of offsets needed for the project (direct and indirect emissions) and clarify that the Applicant have these offsets secured prior to start of construction. MDE suggests that the FEIS note that the Applicant is working with both the EPA and MDE to seek EPA approval of obtaining offsets from a neighboring nonattainment area.

- The FEIS (Section 2.10.1.1, p. 2-149) states the following:
  "Exhaust emissions during normal plant operations associated with onsite vehicles and equipment as well as from commuter traffic can affect air quality and human health. Nonradiological supporting equipment (e.g., diesel generators, fire pump engines) and other nonradiological

emission-generating sources (e.g., storage tanks) or activities are not expected to be a significant source of criteria pollutant emissions. Diesel generators and supporting equipment would be in place for emergency-use only but would be started regularly to test that the systems are operational. **Emissions from nonradiological air pollution sources were permitted for proposed Unit 3 by the Maryland Public Service Commission on June 26, 2009 (Appendix H).** UniStar will also need to obtain a Clean Air Act Title V permit from the MDE to comply with COMAR 26.11.03 and 20.79.03.02.B(2)(c). The infrequent emissions from the emergency diesel generators for Unit 3 are not expected to significantly impact ambient air quality levels at the Calvert Cliffs site or in the vicinity of the site."

The word "stationary" should be added to the sentence above in bold (prior to the phrase "air pollution sources") to clarify that the permit does not cover mobile sources such as onsite vehicles or commuter traffic.

- The FEIS (Section 4.10.3, p. 4-93) states that "Equipment and vehicles used for site preparation and the increase in vehicle traffic of construction workers involved in building proposed Unit 3 would result in increase emissions. Mitigation of increased emissions will be accomplished through applicable permits for National Ambient Air Quality Standards and the National Emission Standards for Hazardous Air Pollutants." There are no explicit permits for National Ambient Air Quality Standards or the National Emission Standards for Hazardous Air Pollutants related to mobile sources. If the FEIS is referring to the construction permit or the PSD permit for CCU3, it should be noted that these permits only cover stationary sources, not mobile sources.

- In Section 9.3.5.8, p. 9-158 of the FEIS, why are the cooling tower emissions not mentioned in this alternative as they were in the Eastalco site or Bainbridge site?

- In Section 9.3.5.8, p. 9-158, the FEIS states that "any new industrial projects would either have *de minimis* impacts or would be subject to regulation by the Maryland DNR of the EPA reporting requirements under the tailoring rule (75 FR 31514)." Industrial sources would be subject to regulation by the Maryland Department of the Environment, not the Maryland DNR.

- In Section 9.3.5.8, p. 9-158, should the reference in the third paragraph be to the Thiokol site (not the Eastalco site)?

Transportation (Section 4.1.1.1)

PPRP disagrees with the conclusion in the EIS that "offsite impacts on road transportation of building Unit 3 would be temporary and noticeable but not destabilizing during the peak project period for roads in the vicinity of the site." A traffic study commissioned by UniStar showed "significant impacts during the peak periods" and recommended mitigation at several intersections, involving significant capital improvements. The Maryland State Highway Administration is currently reviewing the study and its recommendations for mitigation.