

# **Public Meeting to Discuss the Alternative Site Selection Process developed for the Combined License (COL) Application for Proposed Calvert Cliffs Unit 3**

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# Purposes of the Meeting

- Explain NRC's expectations on an alternative site selection process
- Listen UniStar's explanation of the its alternative site selection process presented at this meeting
- Further discuss the process used by UniStar to select the alternative sites for Calvert Cliffs Unit 3 COL application
- Determine a path forward regarding the Calvert Cliffs alternative site selection process

# Relevant Laws & Regulations

- National Environmental Policy Act (NEPA), Section 102(2)(E)
  - States that all agencies of the federal government shall “study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources”.
  
- Title 10 of the Code of Federal Regulation (CFR), Part 51.45(a)(3)
  - States that “The discussion of alternatives shall be sufficiently complete to aid the Commission in developing and exploring...appropriate alternatives.... To the extent practicable, the environmental impacts of the proposal and the alternatives should be presented in comparative form.”

# NRC Guidance on Alternative Site Selection Process

## Environmental Standard Review Plan (ESRP)

- Section 9.3 Site Selection Process, Draft Revision 2007
  - The ESRP states the scope of the staff's review should include the analysis and evaluation of the applicant's process and results related to the selection of the region of interest, candidate areas, potential sites, candidate sites and the selection of the proposed site, and a reasonable number of alternative sites from among the candidates.

# Pertinent ESRP Topics

- Purpose and Need Statement
- Region of Interest (ROI)
- Candidate Areas
- Potential Sites
- Candidate Sites

# Region of Interest

The ESRP states:

- the “region of interest” (ROI) is the geographic area considered in searching for potential and candidate sites. The geographic area of the ROI need not be contiguous, but if not, a logical basis for nonadjacent areas should be provided.
- The ROI is typically selected based on geographic boundaries (e.g., the State in which the proposed site is located) or the relevant service area for the proposed plant. In cases where the proposed plant would not have a service area, the applicant should define a reasonable ROI and provide a justification.
- The reviewer should ensure that the selected ROI has been adequately described and that its boundaries are consistent with those factors outlined in the preceding paragraph. In making this determination, the reviewer should consider (1) how the applicant’s ROI compares with the available geographical area, (2) the extent of and basis for restrictions to the ROI because of siting constraints, and (3) whether the ROI is consistent with the major load centers to be supplied by the proposed plant. As a general rule, the plant should be located at a site in the area of the load center or centers that the plant is to serve over its lifetime.

# Region of Interest in the Calvert Cliffs COL Application

In the COL UniStar states:

- The region of interest is defined as MD and NY (ER Chapter 9 & 8/18/08 RAI response)
- The need for power analysis was based on MD only (ER Chapter 8 & 3/5/09 RAI response)

# NRC Concerns with the Region of Interest

- NY sites are not near MD load centers
- March 5, 2009 RAI response says NY sites could power MD, but:
  - ER also says MD grid is strained by imports today (Chapter 8)
  - MD wants internal power sources, and COLA uses that as a basis (ER Chapter 8)
  - There is no discussion for the NY sites of transmission upgrades (and impacts) to get power to MD
- No mention of nearby states as options (e.g., PA, NJ, DE)
- Looking at sites in NY appears to be inconsistent with Calvert Cliffs being chosen under the ESRP 9.3 exception

This approach appears to be inconsistent with the ESRP

# Potential Sites

The ESRP states:

- “Potential Sites’ are those sites within the candidate areas that have been identified for preliminary assessment in establishing candidate sites.
- The goal of this step in the process is not to identify every potential site in the candidate area(s). Depending on the size of the candidate area(s), trying to identify all possible sites would yield an unworkable number of possible locations. However, the staff needs to determine whether the applicant used a logical process that would reasonably be expected to produce a list of the best potential sites in the candidate area(s).

# Potential Sites in the Calvert Cliffs COL Application

- Although details regarding the selection of potential sites are limited in the application, Table 9.3-6 from the 3/5/09 RAI Responses gives some information
- The logic of the process is not clear:
  - 5 sites rated higher than Ginna were dropped
  - 6 sites rated higher than Thiokol were dropped
  - Transmission line issue for NY sites not addressed
  - Example issue - Frederick site: Potential site dropped because of onsite hazards. Not clear why exclusionary criteria didn't eliminate this site earlier in process.

# Candidate Sites

The ESRP states:

- “Candidate sites” are those potential sites (at least four) that are within the ROI and that are considered in the comparative evaluation of sites to be among the best that can reasonably be found for the siting of a nuclear power plant.
- The reviewer should determine if the selection process used to identify candidate sites was adequate. Sites may be selected on the basis of a screening process to identify unacceptable areas (e.g., population density) or on the basis of positive attributes.
- The reviewer should determine if an adequate, well documented process for screening potential sites was employed, **and that all potential sites were screened in a consistent manner.** [*emphasis added*] The reviewer should consider all screening criteria employed by the applicant in light of the objective of this process (i.e., to identify potentially licensable sites).
- Based on reconnaissance level information, the reviewer should determine if the candidate sites identified by the screening process may be considered as potentially licensable and should also determine that the applicant’s process provides reasonable assurance that potentially licensable candidate sites have not been omitted.

# Candidate Sites in the Calvert Cliffs COL Application

- The COLA brings forward two sites (Ginna and Thiokol) that weren't among the highest rated potential sites
- Consistent criteria not applied to all sites
  - Some NY sites dropped because of “MD preference”, but NMP and Ginna retained
  - Some of the criteria used weren't environmental (e.g., expansion potential, additional land acquisition)

# Conclusions

- Issues identified in UniStar's 3/5/09 RAI responses raise a number of staff concerns with the site selection process
- Process is not sufficient for preparation of the environmental impact statement
- Issues must be resolved before review can proceed