

**From:** Nanette Gilles  
**To:** Eddie Grant; Tom Mundy  
**Date:** Mon, Feb 23, 2004 10:16 AM  
**Subject:** Requests for Additional Information

The attached is an advanced copy of two requests for additional information (RAI) regarding the reviews of the seismic and meteorological portions of your ESP applicaiton. The information requested will assist the NRC staff in the review of Exelon's ESP application. Formal transmittal of the RAI via letter will follow. Let me know if you have any questions or need clarification on the RAIs.

**CC:** Clifford Munson; R. Brad Harvey

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**Creation Date:** Mon, Feb 23, 2004 10:16 AM  
**From:** Nanette Gilles

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exeloncorp.com eddie.grant (Eddie Grant) thomas.mundy (Tom Mundy)	Transferred	02/23 10:16 AM

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252-233 draft RAI.wpd	7976	Friday, February 20, 2004 2:05 PM
MESSAGE	895	Monday, February 23, 2004 10:16 AM

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# DRAFT

## Exelon Early Site Permit Application Site Safety Analysis Report (SSAR) Requests for Additional Information (RAI)

### RAI 2.5.2-1

#### SSAR Section 2.5.2. Vibratory Ground Motion

SSAR Section 2.5.2 describes the results of Exelon's determination of ground motion at the ESP site from possible earthquakes. Regulatory Guide 1.165 (RG 1.165) provides a method acceptable to the NRC staff with respect to the probabilistic evaluations that can be conducted to address the uncertainties associated with the Safe Shutdown Earthquake (SSE) determination. RG 1.165 specifies a target or reference probability (median  $10^{-5}$  per year) that is used to determine the controlling earthquakes and subsequent site ground motion.

Please provide the following information related to the approach used to obtain the results in Section 2.5.2:

1. The approach described in SSAR Section 2.5.2 uses a Uniform Hazard Spectrum (UHS) at the mean  $10^{-4}$  per year probability level as its starting point. Please justify the selection of mean  $10^{-4}$  per year as the appropriate starting point.
2. Please provide site-specific response spectra from the controlling earthquakes at the reference probability level (median  $10^{-5}$  per year) and demonstrate that the SSE envelops the response spectra from the controlling earthquakes at the reference probability level, or justify why this information is not needed in determining the site-specific SSE. Please also justify any reference probability level used other than median  $10^{-5}$  per year. Appendix B to RG 1.165 discusses situations in which an alternative reference probability level may be appropriate.
3. The approach described in SSAR Section 2.5.2 incorporates component capacity or performance parameters into a scale factor used to compute the final SSE. Please justify the incorporation of equipment performance into determination of the final SSE.

### RAI 2.3.3-1

#### SSAR Section 2.3.3. Onsite Meteorological Measurements Program

SSAR Section 2.3.3 discusses Exelon's onsite meteorological measurements program. However, in reviewing the meteorological data used to characterize the atmospheric dispersion conditions for the Clinton ESP site, the NRC staff has determined that additional information is required. Specifically, the staff needs to review the January 2000 through August 2002 onsite

meteorological data base used to generate the SSAR Section 2.3.4 short-term diffusion estimates and the SSAR Section 2.3.5 long-term diffusion estimates.

Sections 2.3.3 of Regulatory Guide 1.70 and Review Standard RS-002 describe methods and approaches acceptable to the staff for onsite meteorological measurement programs. Consistent with these documents, please provide an hourly listing of the January 2000 through August 2002 onsite meteorological data base used to generate the SSAR Section 2.3.4 short-term diffusion estimates and the SSAR Section 2.3.5 long-term diffusion estimates. This data base should be provided on electronic media (e.g., CD ROM), preferably in the format described in Appendix A to Section 2.3.3 of RS-002.