

**From:** Ford, William  
**To:** "Ranek, Nancy L.:(GenCo-Nuc)"  
**Cc:** Danna, James  
**Subject:** Draft Request for Additional Information - LaSalle SAMA Sensitivity Analysis  
**Date:** Thursday, June 23, 2016 5:59:00 PM  
**Importance:** High

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To: Nancy L. Ranek  
License Renewal Environmental Lead  
Exelon Generation, LLC

Nancy,

We will be sending Exelon Generation Company, LLC, a formal request for additional information. This request is an outgrowth of a recent Commission decision on SAMA sensitivity analysis. A draft of this request is included below.

Before we send it formally, we would like to schedule a conference phone call with you to discuss the request.

As this will be a nonpublic phone call, it will be limited to (1) ensuring that Exelon Generation Company, LLC, staff understand what is being requested and it's regulatory basis, (2) determining whether or not the requested information has been previously docketed with the NRC, and (3) agreeing on a date NRC staff can expect a response.

Please contact me at your earliest convenience.

William Ford  
Senior Physical Scientist  
Project Manager – LaSalle License Renewal  
301-415-1263

### **Draft Request for Additional Information for Licensees regarding CLI-16-07**

On May 4, 2016, the Commission issued a decision (CLI-16-07) in the Indian Point license renewal proceeding, in which it directed the Staff to supplement the Indian Point Severe Accident Mitigation Alternatives (SAMA) analysis with sensitivity analyses. Specifically, the Commission held that documentation was lacking for two inputs (TIMDEC and CDNFRM) used in the MACCS computer analyses, and that uncertainties in those input values could potentially affect the SAMA analysis cost-benefit conclusions. The Commission therefore directed the Staff to perform additional sensitivity analyses.

The two inputs (TIMDEC and CDNFRM) are commonly used in the SAMA analyses performed for license renewal applications (LRAs). These two input values were generally based on the values provided in NUREG 1150, "Severe Accident Risks: An Assessment for Five U.S. Nuclear Power Plants" and NUREG/CR-3673, "Economic Risks of Nuclear Power Reactor Accidents." The TIMDEC input value defines the time required for completing decontamination to a specified degree. The CDNFRM input parameter defines the cost (on a per person basis) of decontaminating non-farmland by a specified decontamination factor. The CDNFRM values used in NUREG-1150 (\$3,000/person for decontamination factor of 3 and \$8,000/person for decontamination factor of 15) stem from decontamination cost estimates provided in NUREG/CR-3673, the same 1984 economic risk study

referenced in support of the decontamination time inputs. These decontamination cost inputs are commonly escalated to account for inflation.

The NRC Staff believes the Commission's decision in CLI-16-07 may be applicable to the SAMA analysis performed for LaSalle County Station Units 1 and 2, inasmuch as that analysis may have also relied upon the NUREG-1150 values for TIMDEC and CDNFRM. We therefore request that Exelon Generation Company, LLC either justify why CLI-16-07 does not apply to the SAMA analysis performed for LaSalle County Station, Units 1 and 2 or supplement the SAMA analysis with sensitivity analyses for the CDNFRM and TIMDEC values.

Exelon Generation Company, LLC is requested to review the input values specified in CLI-16-07 for the Indian Point LRA, and (1) to apply the maximum values specified by the Commission (one year (365 days) for TIMDEC and \$100,000 for the CDNFRM values for the decontamination factor of 15) or, in the alternative, (2) to explain, with sufficient justification, its rationale for choosing any other value(s) for its sensitivity analyses. In any event, Exelon Generation Company, LLC should execute sensitivity analyses for the release categories modeled that exceed  $10^{15}$  Becquerels of Cs-137 released. Exelon Generation Company, LLC is requested to evaluate how these sensitivity analyses may affect its identification of potentially cost-beneficial SAMAs. Finally, upon completing its sensitivity analysis, Exelon Generation Company, LLC is requested to submit the spreadsheet (or equivalent table if another method is used) that conveys the population dose and off-site economic cost for each release category and integrates the results into a Population Dose Risk and an Offsite Economic Cost Risk for LaSalle County Station, Units 1 and 2.