

July 6, 2015

Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation  
U.S. Nuclear regulatory Commission

ATTN: Plant Licensing Branch III-2 and Planning and Analysis Branch Staff

**RE: OPPORTUNITY TO COMMENT ON EXELON AMENDMENT TO REVISE  
EMERGENCY ACTION LEVEL SCHEMES**

The Illinois Emergency Management Agency, Bureau of Nuclear Facility Safety (the Agency), hereby submits its comments on the Exelon Amendment to Revise Emergency Action Level Schemes. Generally, the Agency supports Exelon's effort to adopt Emergency Action Level Schemes pursuant to NEI 99-01, Revision 6, as we agree that this is a significant step forward in more appropriate classifications. IEMA understands the NRC basis for approval of this license amendment and agrees that there are many benefits to be gained from the use of NEI 99-01, Revision 6. However, IEMA has comments regarding the following two items:

- 1) the RG1 and RS1 effluent release rates (uCi/s) that could result in offsite dose greater than 1000 mRem TEDE or 5000 mRem thyroid CDE; and,
- 2) the RC5, CT5 and FC5 (BWR) and RC3, CT3, and FC3 (PWR) values for airborne exposure levels (R/hr) in containment or drywell that would indicate fission product barrier failures.

**Release Rate EAL**

On June 30, 2011, Exelon received approval for implementation of EAL Changes for NEI 99-01, Revision 5. Exelon's Revision 5 implementation greatly increased the release rate thresholds for RG1 and RS1. This increase was due in part to the selection of a normal coolant source term in dose modeling calculations. IEMA's concerns with this approach were discussed at a meeting in Chicago in January, 2012. At that meeting, IEMA was told that NEI 99-01, Revision 6 would include appropriate changes to resolve this issue.

Unfortunately, Exelon's proposed implementation of NEI 99-01, Revision 6 includes no changes to RG1 and RS1. Investigations determined that draft versions of NEI 99-01, Revision 6 had initially removed RG1 and RS1, as the general consensus was that these EALs were redundant with other EAL thresholds that would be met prior to reaching the release rate levels. At the NRC's request, these EALs were put back into the Revision 6 implementation. IEMA feels that if these EALs are going to remain, then the thresholds for RG1 and RS1 should be modified to

lower levels consistent with plant conditions at a Site Area Emergency or General Emergency (i.e., with calculations including source term other than normal coolant conditions).

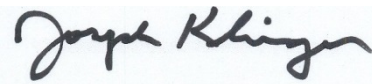
### **Containment/Drywell Dose Rate EAL**

The second issue is related to the EALs that use Exelon's CDAM (Core Damage Assessment Methodology). EALs RC5, FC5, and CT5 (BWR) and RC3, FC3, and CT3 (PWR) are based on a containment or drywell exposure rate (R/hr) that would indicate a fission product barrier failure. A number of years ago, an error was discovered in the CDAM program calculations. The error in CDAM leads to threshold values that are too low by a factor of 5 to 50. The largest error is for Clinton Power Station. This could result in a General Emergency being declared far too early and the public being subjected to unwarranted evacuation.

Our concerns with the proposed implementation of these two EALs are for very different and opposite reasons. The release rate EAL (RG1) threshold is too high to provide a timely indicator of a General Emergency condition. The containment/drywell exposure rate EAL thresholds are too low and could result in unwarranted evacuation. There is very little consistency between these two EALs that use radiation measurement values typically used in dose assessment. This license amendment that changes Exelon EALs from Revision 5 to Revision 6 of NEI 99-01 maintains the status quo as far as the two EALs are concerned. Our desire is that Exelon lower the EAL thresholds for RG1 and RS1 by using accident source terms as the technical basis for calculations instead of normal coolant. Also, with respect to the Containment/Drywell Dose Rate EALs, our desire is that Exelon correct their thresholds for core damage used in the EAL basis. However, because of the numerous overall benefits to adopting NEI 99-01, Revision 6, we do not wish to unnecessarily delay the approval of this amendment.

The Agency appreciates the opportunity to comment on this license amendment. If you have any questions, please feel free to contact Kay Foster, Chief of the Bureau of Nuclear Facility Safety at (217) 785-9851 or via e-mail at [Kay.Foster@Illinois.gov](mailto:Kay.Foster@Illinois.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Joseph Klinger", is centered below the text "Sincerely,".

Joseph G. Klinger  
Assistant Director