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Subject: Response to Request for Comments on Using Probabilistic Risk Assessment in Risk-Informed Decisions Draft Regulatory and Draft Standard Review Plan

- References:**
- (1) Volume 66, Federal Register, Page 38332 (66 FR 38332), dated July 23, 2001
 - (2) Nuclear Energy Institute letter, "Industry Comments on Draft Regulatory Guide DG-1110 (Federal Register of July 23, 2001, 66 FR 38332)," dated September 17, 2001

Exelon Generation Company (EGC), LLC appreciates the opportunity to comment on the NRC's proposed draft Regulatory Guide DG-1110, "An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis," and draft Standard Review Plan Chapter 19, "Use of Probabilistic Risk Assessment in Plant-Specific, Risk-Informed Decisionmaking: General Guidance." This letter provides EGC's comments in response to Reference 1. EGC has been actively involved with the Nuclear Energy Institute (NEI) on this issue and fully endorses the industry comments submitted by the NEI in Reference 2.

In addition to our support of NEI's comments, EGC is primarily concerned because the need for the proposed revisions is not supported by the record of risk-informed regulatory submittals which have applied the current version of Regulatory Guide (RG) 1.174, "An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis." EGC has applied RG 1.174 in a broad spectrum of License Amendment Requests (LARs) including extension of allowed outage times and relaxation of surveillance test intervals. In addition, EGC has applied RG 1.174, and the principles upon which it is based, to determine the risk impact of plant modifications, changes in plant operation, and changes in plant inspection practices. EGC offers the following specific comments based on this experience.

DG-1110 places strong emphasis on numerical quantification of risk from all risk sources for all plant operating states. This is an inappropriate bias compared to the integrated decisionmaking process advocated by the NRC. EGC's experience is that RG 1.174 is used by the NRC to ensure that the risk impact of proposed licensing basis (LB) changes is acceptable. Acceptability is determined by an integrated decision process which considers and balances input from current regulations, defense-in-depth, preservation of safety margins, the numerical risk guidelines stated in RG 1.174, and

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performance measures and configuration management practices which ensure the risk impact is appropriately managed. This balance is the cornerstone of risk management and distinguishes it from mere risk assessment. Several EGC applications have required that the plant be modified or that procedures be changed in order to meet RG 1.174 risk acceptance guidelines. Thus, RG 1.174 has been used to assist in risk management. The emphasis on numerical quantification in DG-1110 distracts from risk management and would convert RG 1.174 to a narrowly focused guideline for risk assessment.

The strong emphasis on numerical quantification in DG-1110 does not acknowledge qualitative risk assessments and compensatory measures which can be taken, if necessary, in the absence of numerical information. EGC's experience with applications of RG 1.174 have involved qualitative risk assessments because we do not have shutdown or external events probabilistic risk assessments (PRAs) for all of our plants. In most cases, the NRC has found these qualitative assessments to be sufficient. In a limited number of cases, the NRC has requested that compensatory measures be defined which offset or control unquantified risk. The emphasis on numerical quantification in DG-1110 indicates that qualitative risk assessments and compensatory measures will be unacceptable in the future.

The addition of late containment failure criteria in DG-1110 is unjustified. The NRC has not indicated that the acceptance guidelines on CDF, Δ CDF, LERF, and Δ LERF presently specified in RG 1.174 are insufficient relative to any of EGC's risk-informed LARs. Given the extensive history of dialogue between and within the NRC and the industry on the topic of risk metrics, it is unacceptable that this significant escalation be proposed without providing any justification based on experience to date and any opportunity for extensive deliberation among experts.

The "PRA Characteristics and Attributes" in DG-1110 Appendix A and the expanded specifications of PRA characteristics in the main body are not justified. EGC has provided in each of its risk-informed LARs and ISI (in-service inspection) relief submittals a description of each PRA which has been employed in their development. These descriptions have all referenced owners' group peer reviews and certifications of the respective internal events PRAs. The reviews of these submittals have not indicated that the NRC has had any difficulty understanding the risk information in them. Therefore, addition of further criteria such as stated in Appendix A and elsewhere in DG-1110 is not justified. In addition, the pending publication of an American Society of Mechanical Engineers standard for internal events PRAs and American Nuclear Society standards for other PRAs obviates the need for the proposed changes in DG-1110.

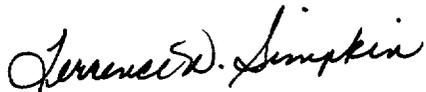
The specifications in DG-1110, Appendix A for an Integrated Decision Panel to judge sufficiency of PRAs and their results is inappropriate and unnecessary. EGC has subjected each of its internal events PRAs to owners' group peer reviews and several of its external events PRAs to independent reviews by industry experts. These structured reviews of all PRA technical elements have provided important insights relative to the use of the PRAs in regulatory applications. In several EGC submittals, the improvements to the internal events PRAs made as a result of these peer reviews, which ensured the PRA was adequate for the respective submittal, were reported to the NRC. This experience clearly demonstrates that the PRA review must be conducted by highly knowledgeable, experienced PRA experts, not a multi-disciplinary expert panel as described by the proposed DG-1110, Appendix A.

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In summary, EGC's experience applying RG 1.174 indicates there is no need for the proposed revisions. Furthermore, many of the proposed revisions are significant escalations of the guidance currently provided without justification.

If you have any questions or require additional information please contact me at (630) 657-2821.

Respectfully,

A handwritten signature in black ink, appearing to read "Terrence W. Simpkin". The signature is written in a cursive style with a large initial "T".

T. W. Simpkin
Manager – Licensing
Mid-West Regional Operating Group