



Commonwealth Edison  
1400 Opus Place  
Downers Grove, Illinois 60515

November 23, 1994

Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Attn: Document Control Desk

Subject: Schedule for LOCA+SSE Steam Generator Load Evaluation for  
Byron Station Unit 1 and Braidwood Station Unit 1  
NRC Docket Numbers 50-454 and 50-456

Reference: G. Dick letter to D. Farrar transmitting the  
issuance of Interim Plugging Criteria  
Safety Evaluation Report for Byron Unit 1  
dated October 24, 1994

In the Reference letter, the Nuclear Regulatory Commission (NRC) granted approval for application of a voltage-based Interim Plugging Criteria (IPC) for Byron Unit 1, Cycle 7. This reference also contained a request for Commonwealth Edison Company (ComEd) to submit a schedule for evaluating the effects of the loads from a postulated safe shutdown earthquake (SSE) in combination with a postulated loss-of-coolant accident (LOCA) on certain tubes in the Byron Unit 1 steam generators. ComEd proposes the following schedule and scope for conducting the required evaluations. Due to the similarities between Byron Unit 1 and Braidwood Unit 1, the evaluation will also be applicable to Braidwood Unit 1.

ComEd will submit an evaluation that conservatively estimates the maximum number of tubes that would be affected during a LOCA + SSE event by February 17, 1995. This evaluation will utilize the results of existing analyses for other plants having steam generator geometries which are the same as or very similar to Byron Unit 1 and Braidwood Unit 1. The existing analyses' results will be adjusted to encompass or bound the Byron/Braidwood units.

The LOCA loads will be obtained from the analysis of a primary inlet double guillotine pipe break from another plant (reference plant) with steam generators of very similar geometry. These loads will be adjusted as necessary to account for the variations in operating parameters between the reference plant and the Byron/Braidwood plants, such that the loads will be applicable to the Byron/Braidwood steam generators.

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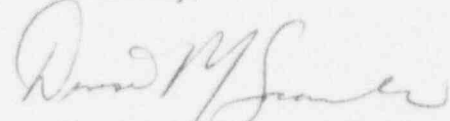
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For the seismically induced (SSE) plate loads, the loading spectra for plants with known seismic loads will be compared to the spectra for the Byron/Braidwood units. Plants having spectra that bound the Byron/Braidwood spectra, in terms of acceleration level and energy content, will be used to establish a conservative set of seismic loads for the Byron/Braidwood analysis. Comparisons of the steam generator geometries will also be made to establish the applicability of the resulting seismic loads to the Byron/Braidwood steam generators.

Although not a part of the evaluation described above, ComEd will continue to investigate the use of Leak Before Break analyses for application to postulated steam generator support plate loads. Preliminary assessment indicates that the maximum number of affected tubes in the wedge location for the lower support plate regions will not change by using the large break LOCA loads. It is expected that the number of affected tubes at the upper support plate may increase by using the large break LOCA loads. However, during B1R06 and A1R04 no confirmed indications were found in the upper support plate region.

Please address any comments or questions regarding this matter to this office.

Sincerely,



Denise M. Saccomando  
Nuclear Licensing Administrator

cc: R. Assa, Braidwood Project Manager, NRR  
G. Dick, Byron Project Manager, NRR  
H. Peterson, Senior Resident Inspector - Byron  
S. Dupont, Senior Resident Inspector - Braidwood  
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