123 Main Street
White Plains, New York 1
914 681.6846

**New York Power Authority**

**Ralph E. Beedle**
Executive Vice President
Nuclear Generation

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U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Station P1-137
Washington, DC 20555

Subject: **Indian Point 3 Nuclear Power Plant**
**Docket No. 50-286**
**ECCS Evaluation Changes**

References:
1. Westinghouse letter, J. R. Gasperini to J. H. Garrity, dated September 27, 1993, "10 CFR 50.46 Notification and Reporting Information."
2. Westinghouse letter, J. R. Gasperini to J. H. Garrity, dated September 22, 1993, "Safety Injection in the Broken Loop."

Dear Sir:

This letter describes recent changes to the Indian Point 3 emergency core cooling system (ECCS) evaluation model, and how these changes affect the peak cladding temperature (PCT). As defined in 10 CFR 50.46(a)(3)(i), the changes in the small break loss of coolant accident (LOCA) analysis are defined as significant (PCT change greater than 50°F) and this letter fulfills the 30 day reporting requirement.

The Authority has reviewed the small and large break LOCA evaluation model changes described in References 1 and 2. Reference 1 describes a change in PCT for a small break LOCA, based on drift flux flow regime errors. Representative plant calculations indicated PCT effects ranging from -13°F to -55°F. For the purposes of tracking PCT, the minimum benefit of -13°F has been assigned to these changes. When considering reportability under 10 CFR 50.46(a)(3)(i), however, it has been demonstrated that the effect of these changes may exceed 50°F. Therefore, this decrease in PCT is reported here as significant.

Reference 2 describes changes to the ECCS evaluation model for a small break LOCA resulting from the modeling of safety injection (SI) flow into a broken reactor coolant system



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(RCS) loop and an improved condensation model. The broken loop injection change results in a 150°F PCT increase. The improved condensation model results in a 150°F PCT decrease. Therefore, the Reference 2 ECCS evaluation model changes result in no net PCT change. However, the Authority recognizes that the test data for the improved condensation model have not been reviewed by the Nuclear Regulatory Commission (NRC), and as a result, the benefit of the 150°F decrease in PCT has not yet been substantiated.

The Authority has reviewed the previously described changes and determined that the Indian Point 3 PCT is well below the maximum fuel cladding temperature limit of 2200°F, even if the potential decrease in PCT resulting from the improved condensation model is ignored. Therefore, Indian Point 3 continues to comply with 10 CFR 50.46.

No commitments are being made by the Authority in this submittal. If you have any questions, please contact Mr. P. Kokolakis.

Very truly yours,

Ralph E. Beedle

cc: U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

Resident Inspector's Office
Indian Point 3
U.S. Nuclear Regulatory Commission
P.O. Box 337
Buchanan, NY 10511

Mr. Nicola F. Conicella, Project Manager
Project Directorate I-1
U.S. Nuclear Regulatory Commission
Mail Stop 14B2
Washington, DC 20555