

POWER AUTHORITY OF THE STATE OF NEW YORK

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August 22, 1979
IPN-79-63

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

Attention: Mr. Albert Schwencer, Chief
Operating Reactors Branch No. 1
Division of Operating Reactors

Subject: Indian Point 3 Nuclear Power Plant
Docket No. 50-286
Fuel Rod Bowing

Dear Sir:

In an April 20, 1977 letter to the NRC, the Consolidated Edison Company submitted an application for amendment to the operating license on Indian Point 3, with proposed technical specification changes revising limits for $F_{\Delta H}^N$ to account for the effects of fuel rod bowing on the departure from nuclear boiling ratio (DNBR). The revised limits included generic margins of 18.1% DNBR for the Indian Point Unit 3 Nuclear Power Plant.

In a July 5, 1978 letter, the Power Authority withdrew its April 20, 1977 application, based upon the October 24, 1977 Westinghouse letter (NS-CE-1580) which presented data on partial rod bow DNB tests. The July 5, 1978 letter showed that sufficient generic DNB margins are available to cover the reduced partial rod bow penalty. However, since the Westinghouse letter was under NRC review, Indian Point Unit 3 has been operating under administrative restrictions which incorporate fuel rod bowing effects on the $F_{\Delta H}^N$ limits, as given in the April 20, 1977 application.

Since that time, the NRC has completed the review of Westinghouse's partial rod test data and analyses, and an April 5, 1979 NRC acceptance letter from J. F. Stolz (NRC) to T. M. Anderson (W) was issued. The generic DNB margins described above are sufficient to accommodate the approved DNBR penalties for full flow conditions and the loss of flow accident up to a region average burnup greater than 33,000 MWD/MTU. By the time the fuel attains a burnup of 33,000 MWD/MTU, it is not capable

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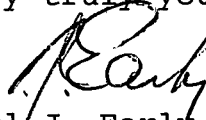
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of achieving limiting peaking factors, $F_{\Delta H}^N$, due to the decrease in fissionable isotopes and the buildup of fission product inventory. No credit is being taken at this time for existing additional DNBR margins resulting from primary coolant flow rate above design and from reduced inlet fluid temperature.

In view of the above discussion, the Power Authority is eliminating administrative restrictions on fuel rod bowing affecting $F_{\Delta H}^N$ limits in the Indian Point Unit 3 technical specifications.

Very truly yours,



Paul J. Early
Assistant Chief Engineer-Projects