

William J. Cahill, Jr.  
Vice President

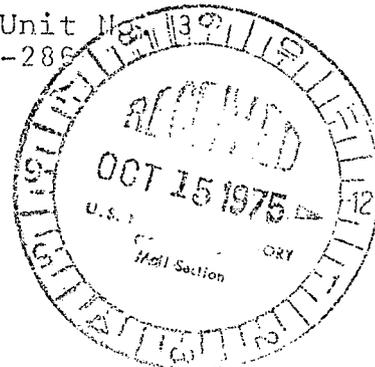
# REGULATORY DOCKET FILE COPY

Consolidated Edison Company of New York, Inc.  
4 Irving Place, New York, N Y 10003  
Telephone (212) 460-3819

October 10, 1975

Re Indian Point Unit No. 3  
Docket No. 50-286

Director of Nuclear Reactor Regulation  
ATTN: Mr. D.B. Vassallo, Chief  
Project Branch 1-1  
Division of Reactor Licensing  
U.S. Nuclear Regulatory Commission  
Washington, D. C. 20555

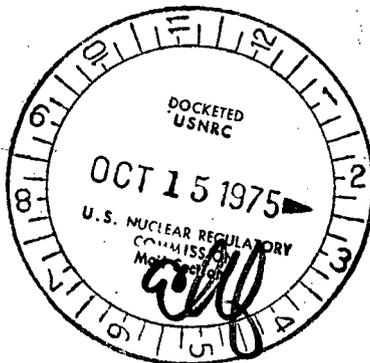


Dear Mr. Vassallo

Enclosed please find twenty (20) copies of Westinghouse WCAP-8558-P entitled, "Westinghouse ECCS 4 Loop 15 x 15 Sensitivity Studies". This WCAP presents a complete 4-loop break spectrum utilizing a 15 x 15 fuel rod geometry to demonstrate conformance with 10CFR50.46 and to demonstrate that the Indian Point Unit No. 3 ECCS plant analyses presented in Appendix 14C of the FSAR bound the worst break.

The basis for the analyses presented in WCAP-8558-P is as follows:

1. The SATAN VI hydraulic blowdown calculation was based on 102% of 3579 Mwt.
2. The LOCTA IV rod heatup calculation was based on a total peaking factor of 2.32 and a power level of 102% of 2813 Mwt, which results in peak linear power of 13.5 KW/ft.
3. The containment heat sinks used were conservatively based on the heat sinks in the NRC Branch Technical Position CSB 6-1. These heat sinks are conservatively high and yield a conservatively low containment back pressure.
4. The accumulator water volume used in this study is 950 cu.ft.



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October 10, 1975

Re Indian Point Unit No.3  
Docket No. 50-286

The break spectrum presented in WCAP-8558-P is applicable to Indian Point Unit No. 3 for the following reasons:

1. The plant used as a basis for the break spectrum is of the same general design as IP-3 (i.e., the number of loops are the same, the loop components are similar, the number of fuel assemblies are the same, and the number of fuel rods per fuel assembly are the same).
2. The shape of the break spectrum in WCAP-8558-P confirms the shape of the break spectrum analyzed for IP-3 (i.e., the worst case in both analyses is the DECLG with  $C_D = 0.8$ ).
3. In addition to the break spectrum in WCAP-8558-P, specific analyses were performed for IP-3 including four large breaks and three small breaks. Small breaks are not limiting compared to large breaks. The number of large break cases analyzed was more than was necessary, since the DECLG with  $C_D = 0.8$  is the worst case.
4. The results presented in WCAP-8558-P clearly establish that the limiting break for a similar plant will be a cold leg guillotine break. Parameters such as core power and accumulator water inventory will affect the magnitude of the calculated results, but will not cause any appreciable shift in the relative results for a given plant. For example, increasing core power will cause the calculated temperature for all of the breaks to increase, but will not cause any relative shift in the results such that the hot leg or pump suction breaks would become limiting. Likewise, changes in the accumulator water inventory will affect the calculated results, but will not result in the limiting break shifting to the hot leg or pump suction leg. This is substantiated by the similarity in the results for cold leg guillotine breaks for Indian Point 3 and those presented in WCAP-8558-P.

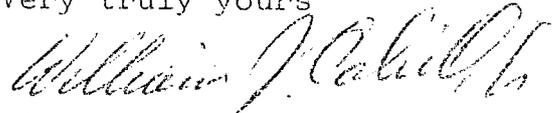
This submittal in combination with the analyses in FSAR Appendix 14C and the small break spectrum analyzed in WCAP-8356 entitled, "Westinghouse ECCS - Plant Sensitivity Studies," dated July 1974 complete the break spectrum analysis requirements for Indian Point Unit No. 3.

October 10, 1975

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Due to the proprietary nature of the material contained in WCAP-8558-P, which was obtained at considerable expense and the release of which according to Westinghouse would seriously affect their competitive position, we request that this report be withheld from public disclosure in accordance with the rules of practice, 10CFR2.790, and that the information presented therein be safeguarded in accordance with 10CFR2.903. We believe that withholding this report will not adversely affect the public interest. Therefore, twenty (20) copies of a non-proprietary version, WCAP-8559, are also enclosed. The non-proprietary report will be referenced in Supplement 31 to the IP-3 FSAR.

Very truly yours



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Vice President

Enc.  
mrb

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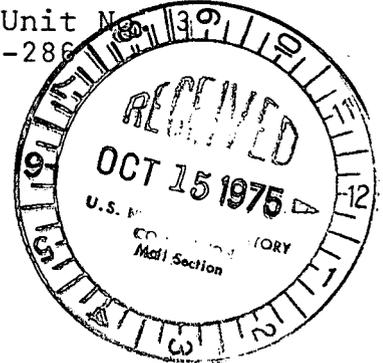
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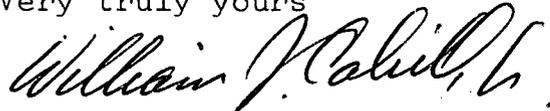
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DOCKET NO. 50-286

DATE: October 22, 1975

NOTE TO NRC AND/OR LOCAL PUBLIC DOCUMENT ROOMS

The following item submitted with letter dated October 10, 1975  
from Consolidated Edison Company is being withheld from  
public disclosure, pending review, in accordance with Section 2.790.

PROPRIETARY INFORMATION

Proprietary version of WCAP-8858-P concerning the Emergency  
core cooling system

Edward H. Foul

Regulatory File Room