John D. O'Toole
Vice President

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July 5, 1985

Re: Indian Point Unit No. 2
Docket No. 50-247

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

ATTN: Mr. Steven A. Varga, Chief
Operating Reactors Branch No. 1
Division of Licensing

Dear Mr. Varga:

Attachment A to this letter provides the additional information requested by members of your staff regarding our February 28, 1985 license amendment application.

Should you or your staff have any further questions please contact us.

Very truly yours,

John D. O'Toole

attach.
cc: Senior Resident Inspector
U. S. Nuclear Regulatory Commission
P. O. Box 38
Buchanan, New York 10511

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Attachment A

Question 1:

How was the projected RT_{NDT} for vessel beltline weld material determined?

Response:

As reported in Con Edison's March 29, 1978 submittal (Cahill to Reid), two different weld wires were used in the vessel beltline region during the fabrication of the Indian Point Unit No. 2 reactor vessel. Weld wire W5214 was used for the vertical seam welds and weld wire 34B009 was used for the intermediate shell to lower shell girth weld. As indicated in the March 29, 1978 submittal, no chemical analysis for copper was performed for the original weld material at the time of the Unit 2 vessel fabrication.

One of the three Indian Point 2 surveillance capsules examined to date (i.e., Capsule Y) did have samples of weld wire W5214 and the projection of the RT_{NDT} for weld material was made based on the Southwest Research Institute (SWRI) laboratory capsule analyses and application of the Regulatory Guide 1.99, Rev. 1, trend curves.

Samples of weld wire 34B009 are not contained in any of the Indian Point 2 reactor vessel surveillance capsules. However, this weld wire was contained in the H.B. Robinson 2 reactor vessel of the Carolina Power and

Light Company (CP&L) who similarly needed to establish the properties of weld wire 34B009. They determined that in addition to the beltline region, this weld wire was used in the vessel head welds of the Robinson 2 reactor. Accordingly, CP&L took actual samples from the head welds and performed a chemical analysis. In particular, those analyses established a copper content of 0.187 w/o and a phosphorus content of 0.012 w/o. CP&L submitted the results of this analysis to the NRC by letter dated June 29, 1984 from A. B. Cutter to H. R. Denton. The NRC accepted those analyses and confirmed by letter dated September 11, 1984 from S. Varga to E. E. Utley that this chemical data could be applied to the Robinson 2 beltline weld.

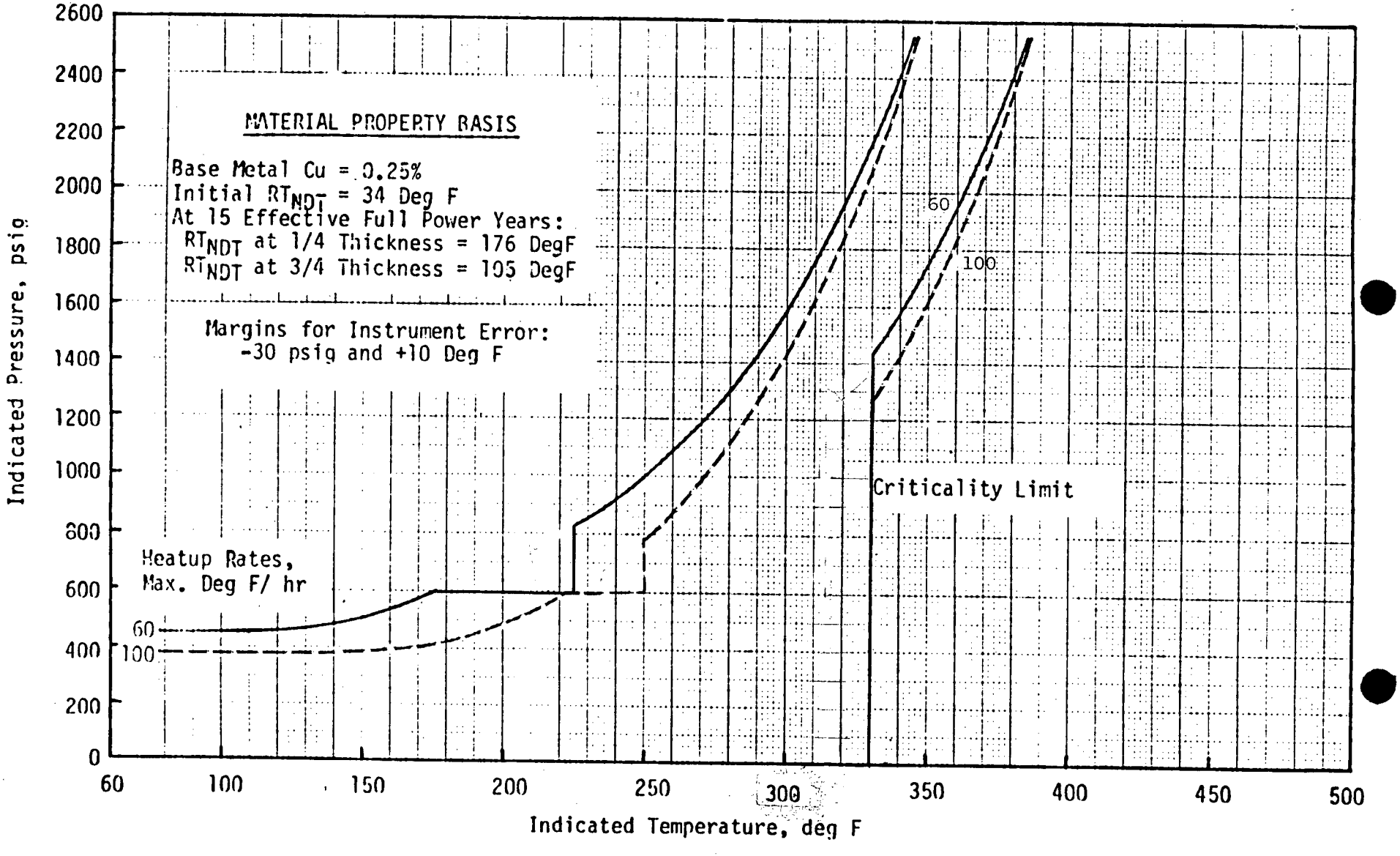
Since the weld wire in question at Indian Point 2 is the same 34B009 heat as for Robinson 2, the results of the CP&L chemical analyses also apply to the Indian Point 2 beltline girth weld. Accordingly, using that data and Regulatory Guide 1.99, Rev. 1, the projected RT_{NDT} for weld wire 34B009 at Indian Point 2 is bounded by that projected for weld wire W5214 for which we have actual surveillance capsule data.

Question 2:

Document the basis for establishing compliance with paragraph IV.A.2 of 10 CFR 50, Appendix G.

Response:

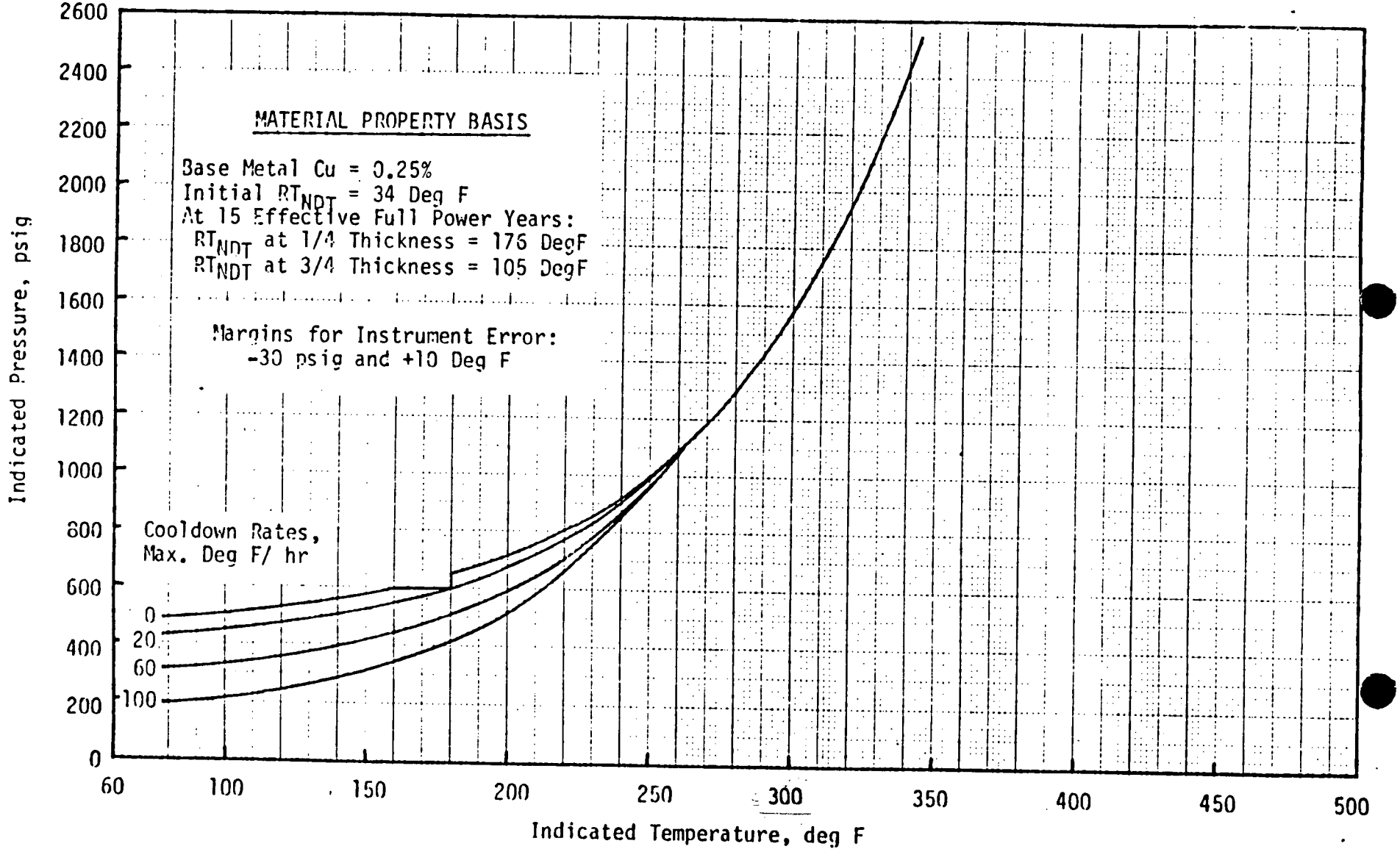
In developing the heatup and cooldown curves contained in the February 28, 1985 application, the highest initial RT_{NDT} of the vessel nozzle shell plates (i.e., $25^{\circ}F$) was used to determine the limits for the vessel closure flange region to satisfy Appendix G requirements. At the request of the NRC staff, we have investigated the material properties of the flange forgings for the vessel and vessel head. These forgings were manufactured in accordance with ASME A336/Code Case 1332 and, thus, are equivalent to SA-508, Class II, forgings. NUREG-0577 establishes the use of $40^{\circ}F$ as the initial RT_{NDT} for SA-508, Class II, material, where specific RT_{NDT} information is not available. Since initial RT_{NDT} data is not available for the Indian Point 2 forgings, $40^{\circ}F$ is to be used. Accordingly, the proposed heatup and cooldown curves have been revised to reflect this more conservative value. These revised figures are attached to this package and supersede the corresponding figures provided in the February 28, 1985 application.



INDIAN POINT UNIT NO. 2 COOLANT HEATUP LIMITATIONS
APPLICABLE FOR PERIODS UP TO 15 EFFECTIVE FULL POWER YEARS

Amendment No.

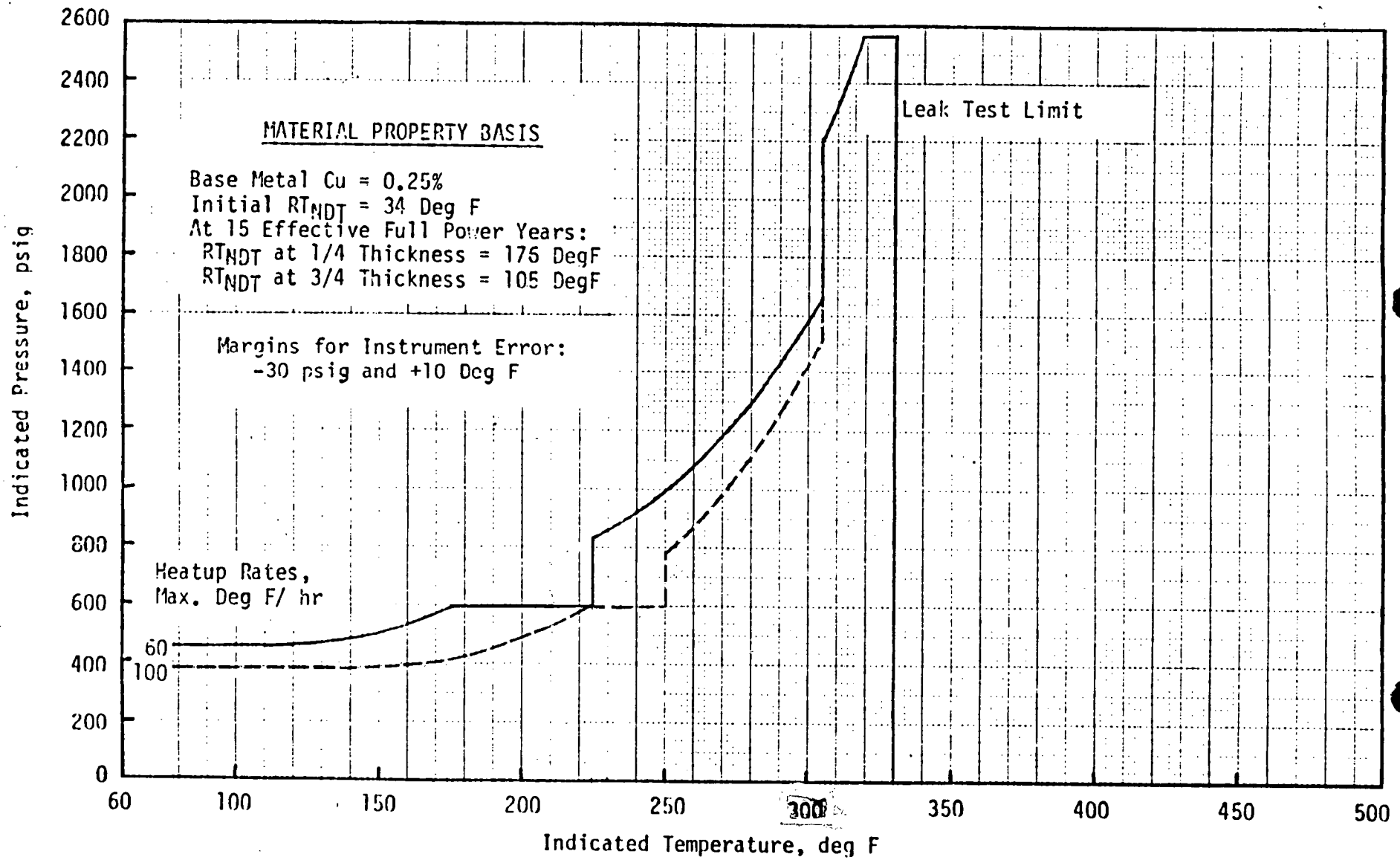
Figure 3.1.B-1



INDIAN POINT UNIT NO. 2 COOLANT COOLDOWN LIMITATIONS
APPLICABLE FOR PERIODS UP TO 15 EFFECTIVE FULL POWER YEARS

Amendment No.

Figure 3.1.B-2



INDIAN POINT UNIT NO. 2 VESSEL LEAK TEST LIMITATIONS
APPLICABLE FOR PERIODS UP TO 15 EFFECTIVE FULL POWER YEARS