



**New York Power
Authority**

John C. Brons
Senior Vice President
Nuclear Generation

April 17, 1987
IPN-87-020

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Subject: Indian Point 3 Nuclear Power Plant
Docket No. 50-286
Inservice Inspection Program; Relief from Category B-D
Examination of Steam Generator and Pressurizer Welds

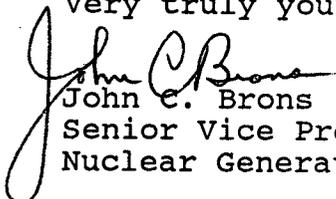
Dear Sir:

This letter requests relief from the Section XI inspection requirements of the ASME Boiler & Pressure Vessel Code, 1974 Edition with Addenda through Summer 1975. Pursuant to 10 CFR 50.55a, relief is proposed from the volumetric examination of the pressurizer and steam generator nozzle-to-head welds inner radii. This relief request applies specifically to the first ten year interval of the Indian Point 3 (IP-3) Weld and Support Inservice Inspection (ISI) Program.

In accordance with 10 CFR 170.12, a check in the amount of \$150.00 is enclosed as payment of the application fee for the review of these proposed changes to the first ten year ISI Program required by 10 CFR 50.55a.

Your review of this relief request prior to the start of the Cycle 5/6 Refueling Outage is requested. This will allow incorporating the outcome of this request into the final inspection period of the first ten year ISI interval. Should you or your staff have any questions regarding this matter, please contact Mr. P. Kokolakis of my staff.

Very truly yours,


John C. Brons
Senior Vice President
Nuclear Generation

Attachment
cc: next page

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PDR ADOCK 05000286
Q PDR

Rec'd w/cheek \$150.00

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cc: U.S. Nuclear Regulatory Commission
631 Park Avenue
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Resident Inspector's Office
Indian Point Unit 3
U.S. Nuclear Regulatory Commission
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ATTACHMENT TO IPN-87-20

PROPOSED INSERVICE INSPECTION RELIEF REQUEST

NEW YORK POWER AUTHORITY
INDIAN POINT NUCLEAR POWER PLANT
DOCKET NO. 50-286
DPR-64

NEW YORK POWER AUTHORITY
INDIAN POINT 3 NUCLEAR POWER PLANT

PROPOSED INSERVICE INSPECTION RELIEF REQUEST

The Indian Point Unit 3 Weld and Support Inservice Inspection Program is based on Section XI of the ASME Boiler and Pressure Vessel Code, 1974 Edition with Addenda through Summer 1975. The Authority hereby requests relief from the specific Code requirements as outlined below:

1. Category B-D; Item No. B2.2; Pressurizer Nozzle-to-Head Welds and Nozzle-to-Weld Radiused Section.

Areas Subject to Examination

The areas shall include the nozzle-to-vessel weld and adjacent areas as shown in Figure IWB-2500D.

Extent and Frequency of Examination

The extent of examination of each nozzle shall cover 100% the volume to be inspected as shown in Figure IWB-2500D. All nozzles shall be examined during each inspection interval.

Method of Examination - Volumetric.

Alternate Examination

In lieu of the above examination requirements, a visual examination for evidence of leakage during system hydrostatic tests will be performed as required by Paragraph IWB-5222.

Basis of Relief

The nozzles on the pressurizer are not of welded construction, but are cast with the vessel heads. A volumetric examination of the nozzle inside radius section through the cast structure (a normally coarse grain boundary), combined with the geometric configuration of the nozzle to head area, effectively precludes ultrasonic examination.

The geometry and size of the nozzles are such that a radiographic examination is not feasible. Specifically, the radiographic test film cannot be situated properly from the

inside diameter (I.D.) due to a lack of interior structure to work from. Placement of the source on the I.D. will not allow proper film to source distance, resulting in a lack of definition in the radiographic image.

Additionally, a visual examination of the inside surface is precluded due to expected high radiation exposures and will yield little useful information due to the surface cladding. The actual radiation exposure fields inside the Pressurizer have not been measured at Indian Point 3. However, other primary head and nozzle areas such as the Steam Generators have exposure fields of 10 to 12 Rem/hr. With the Steam Generators and Pressurizer having very similar conditions (Reactor Coolant fluid exposure, cast-structured heads and nozzles, rough clad surfaces) it can be assumed that these components have a similar magnitude of radiation exposure fields.

2. Category B-D; Item B3.2; Steam Generator Nozzle-to-Head Welds and Nozzle-to-Vessel Radiused Section.

Areas Subject to Examination

The areas shall include the nozzle-to-vessel weld and adjacent areas as shown in Figure IWB-2500D.

Extent and Frequency of Examination

The extent of examination of each nozzle shall cover 100% of the volume to be inspected as shown in Figure IWB-2500D. All nozzles shall be examined during each inspection interval.

Alternate Examination

In lieu of the above examination for evidence of leakage during system hydrostatic tests will be performed as required by Paragraph IWB-5222.

Basis for Relief Request

The nozzles on the steam generators are not of welded construction, but are cast with the heads of the vessels. A volumetric examination of the nozzle inside radius section through the cast structure (a normally coarse grain boundary), combined with the geometric configuration of the nozzle to head area, effectively precludes ultrasonic examination.

Although, the inner radii of the steam generator nozzles are potentially accessible for a surface examination, such examinations are unwarranted because the inner surface is clad. Additionally, the clad surface is rough, further precluding meaningful surface examinations.

The radiation levels in the interior of the nozzles and head have been measured in a range from 10 to 12 Rem/hr. These levels make a visual examination or a volumetric examination by radiography impracticable.