

John D. O'Toole  
Vice President

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May 11, 1984

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:

Transmitted as Attachment A to this letter are requests for relief from the ASME B&PV Code, Section XI, system pressure testing requirements. These relief requests, submitted as required by 10 CFR 50.55a(g), were previously discussed with Messrs. R. Pedersen and G. Johnson of the NRC staff during a telephone conference on April 30, 1984. Mr. Johnson indicated his general concurrence with these relief requests during that conference. The provisions of these requests are intended for application to system pressure testing of Indian Point Unit No. 2 during the next refueling outage, planned to commence on June 2, 1984. The 1984 refueling outage is the final refueling outage of the ten year inspection interval. Accordingly, your early review and approval of the requested relief are requested.

By letter dated March 8, 1984, we provided justification for deferring Class 3 systems pressure tests from the current Cycle 6/7 refueling outage scheduled for June 1984 until the Cycle 7/8 refueling outage. Although the relief requested in Attachment A to this letter contains provisions relating to Class 3 systems, it is not intended that these relief requests supersede those in the March 8, 1984 letter, but rather that they apply to pressure testing of Class 3 systems, if such testing is accomplished during the Cycle 6/7 refueling outage.

In a submittal dated August 29, 1983, we requested a Technical Specification change and relief from the volumetric and inside surface examinations of the reactor coolant pump casing welds. In a telephone conference on November 21, 1983, with Messrs. Pedersen and Johnson, concurrence with that request was indicated. A Technical Specification change and revised safety evaluation report (SER) documenting staff concurrence were to follow. Based on those discussions, we do not plan

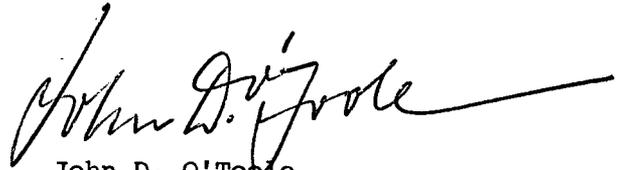
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to conduct volumetric examinations or inside surface examinations on a reactor coolant pump casing during the 1984 refueling outage. We are however planning to conduct an exterior surface examination of the casing welds, as well as a visual examination for evidence of leakage during the system pressure test.

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

Very truly yours,

A handwritten signature in black ink, appearing to read "John D. O'Toole", with a long horizontal flourish extending to the right.

John D. O'Toole  
Vice President

ATTACHMENT A

Requests for Relief from  
System Pressure Testing Requirements  
of ASME B&PV Code Section XI

Consolidated Edison Company of New York, Inc.  
Indian Point Unit No. 2  
Docket No. 50-247  
May, 1984

## Relief Request A

### 1. Components for Which Relief is Requested

- (a) Name: All components subject to the hydrostatic test provisions of IWA-5000, IWB-5000, IWC-5000 and IWD-5000
- (b) Function: Various
- (c) ASME Section XI Code Class: 1,2 and 3

### 2. Reference Code Requirements That Have Been Determined to be Impractical

Provisions of Section XI 74/S75 IWA-5000, IWB-5000, IWC-5000 and IWD-5000 regarding

- o definition of test types
- o test holding times
- o test pressures and temperatures
- o test boundaries

### 3. Alternate Examinations

The provisions of Section XI 80/W81 IWA-5000, IWB-5000, IWC-5000 and IWD-5000 regarding

- o definition of test types
- o test holding times
- o test pressures and temperatures
- o test boundaries

will be used as a basis for conducting system hydrostatic tests except that such tests may be conducted either while the plant is in operation or shutdown.

### 4. Basis for Requesting Relief and Alternate Examination

The 80/W81 Code contains numerous clarifications and details reflecting the latest Code evolutions and industry experience. The earlier 74/S75 Code in many areas does not provide such clarification. The use of the 80/W81 Code as stipulated above will provide clearer guidelines for performing the tests.

The 80/W81 IWA-5211(d) provisions currently stipulate performance of hydrostatic tests during plant shutdown only. Performing leakage and hydrostatic tests on systems or portions of systems during plant operation or during plant shutdown will allow greater scheduling flexibility.

Performing tests during plant operation will also provide a reduction in challenges to the system(s). In general, going from

$P_{atmospheric}$  to  $P_{test}$  will produce a greater increase in fatigue usage factor than going from  $P_{operating}$  to  $P_{test}$ . In addition, the thermal stress associated with the former pressure excursion will be more severe than the latter. Adherence to Plant Technical Specification requirements will assure proper plant operation during conduct of system pressure tests.

## Relief Request B

### 1. Components for Which Relief is Requested

- (a) Name: Buried components and components made inaccessible for examination by high radiation fields, congestion of components and closed piping tunnels
- (b) Function: Various
- (c) ASME Section XI Code Class: 1,2 and 3

### 2. Reference Code Requirements That Have Been Determined to be Impractical

Provisions of Section XI 74/S75 IWA-5240 regarding examinations.

### 3. Alternate Examinations

The provisions of Section XI 80/W81 IWA-5244 which relate to examination of buried components will apply and be extended to cases where components are made inaccessible for inspection by virtue of high radiation fields, congestion of components and closed piping tunnels such that a visual examination is not feasible. In addition, paragraph IWA-5244(a), which currently is limited to non-redundant systems, shall also apply to redundant systems.

### 4. Basis for Requesting Relief and Alternate Examinations

The 74/S75 Code does not include later Code provisions such as 80/W81 which were developed in recognition of the fact that inaccessible components which preclude visual examination require alternate examination such as pressure test loss or flow changes. These later provisions however, are limited to buried components, only, and do not take into account equally compelling conditions which preclude examination, such as, high radiation fields, component congestion and closed tunnels. In these cases the alternate examination provisions will apply.

The specific reference to paragraph IWA-5244(a), applying to redundant systems, is necessary because the provisions of IWA-5244 currently discuss only three potential cases of redundancy and isolability. The fourth case, which exists in some systems such as the Service Water System, is redundant/isolable components. By applying the provisions of IWA-5244(a) to this case all possible conditions are covered.

## Relief Request C

### 1. Components for Which Relief is Requested

- (a) Name: Steam Generators (Secondary Side) and connecting non-isolable main steam, blowdown and feedwater piping and valves.
- (b) Function: Steam generation, blowdown and feedwater inlets.
- (c) ASME Section XI Code Class: 2

### 2. Reference Code Requirements That Have Been Determined to be Impractical

Provisions of Section XI 74/S75 IWC-5220 which stipulate that the system hydrostatic test pressure is to be 1.25 times the system design pressure.

### 3. Alternate Examinations

Each steam generator and connecting non-isolable piping shall be tested in accordance with 80/W81 IWB-5222 which is based on operating pressure in lieu of design pressure.

### 4. Basis for Requesting Relief and Alternate Examinations

The steam generators (primary and secondary side) were designed in accordance with the requirements of ASME B&PV Code Section III Class A, (1965 Edition), to the same requirements as the Indian Point Unit 2 reactor vessel and pressurizer. Accordingly, the steam generator secondary side and connecting non-isolable piping classification shall be upgraded, for hydrostatic test purposes only, consistent with its construction to the classification of the reactor vessel and pressurizer. The provisions of IWB-5222 in lieu of IWC-5220 will therefore apply.

Relief Request D

1. Components for Which Relief is Requested

- (a) Name: All components subject to the hydrostatic test provisions of IWD-5200(b) and IWD-5200(c)
- (b) Function: Various
- (c) ASME Section XI Code Class: 3

2. Reference Code Requirements That Have Been Determined to be Impractical

Provisions of IWD-5200(b) and IWD-5200(c) regarding hydrostatic tests of storage tanks and open ended portions of systems.

3. Alternate Examinations

The provisions of Section XI 80/W81 IWD-5223(b) through IWD-5223(e) shall be applied to all components discussed in these provisions. In addition the provisions of Section XI 80/W81 IWD-5223(d) shall be applied to open ended portions of service water suction lines up to the first shutoff valve.

Basis for Requesting Relief and Alternate Examinations

The 80/W81 Code paragraphs IWD-5223(b) through IWD-5223(e) contain numerous clarifications and details reflecting the latest Code evolutions and industry experience. The earlier 74/S75 Code in many areas does not provide such clarification. The use of the 80/W81 Code provisions stipulated above will provide clearer guidelines for performing the tests.

However, even the 80/W81 provisions do not clarify the criteria to be used for Class 3 components which take suction from a river. Applying the criteria of paragraph IWD-5223(d) to the open ended portions of the service water suction lines up to the first shutoff valves will establish the criteria to be used for this case.

Relief Request E

1. Components for Which Relief is Requested

- (a) Name: Line segments identified below
- (b) Function: Safety Injection
- (c) ASME Section XI Code Class: 2

2. Reference Code Requirements That Have Been Determined to be Impractical

Provisions of Section XI 74/S75 IWC-5220 which stipulate that the system hydrostatic test pressure required is 1.25 times the system design pressure.

3. Alternate Examinations

Each line segment listed below, which is non-isolable from the Reactor Coolant System, shall be tested in accordance with 80/W81 IWB-5222 which is based on operating pressure in lieu of design pressure.

<u>Line No.</u>	<u>From Valve</u>	<u>To Valve/Line</u>
56	856A	857J
56	856E	857K
56	856B	857B
16	856F	857A
16	856D	857D
16	856C	857C
351	894A	895A
352	894B	895B
353	894C	895C
350	894D	895D
19	205	374
361	746, 747	838D, 838C (line 358), 838B (line 356), 838A (line 155)
31	839A	Line 351
31	839C	Line 352
31	839E	Line 353
31	839G	Line 350

Basis for Requesting Relief and Alternative Examinations

1. Because of their classification & temperature rating, these lines would require test pressures higher than that of the RCS; however, since they are non-isolable from the RCS, testing at their test pressure could potentially jeopardize the RCS.
2. The line segments are designed to the same piping specifications as the RCS and should therefore be tested to the same pressure.

## Relief Request F

### 1. Components for Which Relief is Requested

- (a) Name: Auxiliary Cooling System Supply and Discharge Headers
- (b) Function: Auxiliary Cooling Water
- (c) ASME Section XI Code Class: 3

### 2. Reference Code Requirements That Have Been Determined to be Impractical

Provisions of Section XI 74/S75 IWC-5220 regarding system hydrostatic test pressures.

### 3. Alternative Examinations

The auxiliary cooling system supply header and discharge header shall be tested using an inservice test at nominal operating pressure.

### 4. Basis for Requesting Relief and Alternate Examinations

The auxiliary cooling system removes heat from various components in all modes of plant operation. Although any redundant component in the system can, and shall be isolated, tested and repaired, if necessary, without affecting plant safety, the supply and discharge headers, because they are a non-redundant single loop system, cannot be isolated long enough for testing. There is no time in the life of the plant when these lines can readily be removed from service for the period of time required to perform pressure tests and to make repairs, if required.

For example, if repairs were required in the discharge header subsequent to pressure tests and the repair area was located in a pipe tunnel where accessibility is very restricted, the total time required to isolate the header, pressure test it, repair it, retest it and restore it to service would be prolonged such that design temperature limits of the spent fuel pool may be exceeded. The potential for such a situation will be minimized by substituting inservice tests at nominal operating pressure for hydrostatic tests.