



March 15, 1985
JPN-85-20

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

Attention: Mr. Domenic B. Vassallo, Chief
Operating Reactors Branch No. 2
Division of Licensing

Subject: James A. FitzPatrick Nuclear Power Plant
Docket No. 50-333
Response to Safety Evaluation Report on
Inservice Inspection Program

Reference: 1. NRC letter, D. B. Vassallo to J. P. Bayne,
dated January 31, 1984.

Dear Sir:

The Power Authority has reviewed the NRC's Safety Evaluation Report (SER) (Reference 1) on the James A. FitzPatrick Nuclear Power Plant Inservice Inspection Program. As a result, the Authority considers it necessary to request clarification or re-evaluation by the NRC.

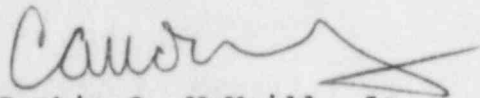
In reviewing our relief requests, we have found some to be no longer necessary due to capabilities or conditions developed during the time this program was under NRC review (September 1979 to January 1984). Other relief requests, including some which have been denied, are being submitted for further evaluation, since in the opinion of the Power Authority, the required examinations have been determined to be impractical and would result in hardships or unusual difficulties without a compensating increase in the level of quality and safety. We are, therefore, requesting that certain relief requests be reconsidered. In addition, for some cases we intend to submit relief requests for specific welds. An item by item discussion of these relief requests follows in Attachment 1. The designation of each item corresponds to that used in Tables 1 through 6 of the SER and the Technical Evaluation Report prepared by the NRC's contractor, Science Applications, Inc.

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If you have any questions, please contact Mr. J. A. Gray, Jr.
of my staff.

Very truly yours,



Corbin A. McNeill, Jr.
Senior Vice President
Nuclear Generation

cc: Office of the Resident Inspector
U. S. Nuclear Regulatory Commission
P. O. Box 136
Lycoming, New York 13093

Attachment 1
Response to Safety Evaluation Report
on Inservice Inspection Program

New York Power Authority
James A. FitzPatrick Nuclear Power Plant
Docket No. 50-333
JPN-85-20
dated March 15, 1985

SAFETY EVALUATION REPORT (SER) Table 1 Items

Item B.1.1: Reactor Vessel Shell Beltline Region Welds; Code Category B-A.

The code required scope and frequency of examination, based on current estimated neutron exposure, will be complied with to the extent practical considering accessibility through permanent insulation and shielding. Any limitations in examination extent will be submitted as relief requests after the current refueling outage. These requests will address specific welds.

Item B.1.2: Reactor Vessel Shell Welds other than in Beltline: Code Category B-B.

The code required scope and frequency of examinations will be complied with to the extent practical considering accessibility through permanent insulation and shielding. Any limitations in examination extent will be submitted as relief requests after the current refueling outage. These requests will address specific welds.

Item B.1.4: Reactor Vessel Nozzle Inner Radii; Code Category B-D.

The code required examinations can be performed on most nozzles, and will be attempted during the current outage. Relief required due to inaccessibility will be requested following the 1985 refueling outage, and any limitations in examination extent will be submitted as relief requests after the outage. These requests will address specific welds.

Items B1.11; B4.12; B5.9; B4;12; Pressure Retaining Bolting Less Than 2 Inches in Diameter; Code Category B-G-2.

In its original request, the Power Authority did not intend to seek relief from the performance of all inspections of pressure retaining bolting smaller than 2 inches diameter. It has been and continues to be our policy to examine the pressure retaining bolting of Class 1 components whenever this bolting is made accessible by disassembly of the associated components during routine maintenance. In-place visual inspection of bolting does not reveal the areas most susceptible to failure and subsequent degradation of pressure retaining integrity. Therefore, in-place inspection results in unnecessary radiation exposure and expense.

The Authority does not intend to disassemble components solely for the purpose of inspection. This could cause unnecessary wear and the possibility, however slight, of damage to the bolting or components. Specific relief requests will be submitted upon the conclusion of the 1985 refueling outage, for the bolting of each component not disassembled and inspected during the current inspection interval. In addition, each bolted component will be examined specifically for leakage during the hydrostatic testing conducted during this outage in accordance with IWA-5000 and IWB-5000 and the requirements of Category B-P of the 1974 Edition, through Summer 1975 Addenda.

Item B.118: Stub Tube to Control Rod Drive (CRD) Housing Peripheral Welds; code Category B-0.

NRC relief from volumetric examination was granted under the condition that a visual examination be performed during the hydrostatic test. A hydrostatic test will be conducted during the 1985 refueling outage, and the stub tube to CRD housing welds in 10% of the peripheral CRD housings will be examined for leakage at that time.

Item B4.9, B5.4, B6.4; Integrally Welded Supports for Piping, Pump, and Valves; code Category B-K-1.

The Authority requested relief from volumetric examination on the basis that a meaningful volumetric examination cannot be done, and proposed a surface examination of integral support welds as an alternative. This request was denied without explanation. Pursuant to 10 CFR 50.55a(g)(4)(iv), the Authority has elected to utilize the 1977 Edition, through Summer 1978 Addenda for the examination method for code category B-K-1. This code year and addenda requires that a surface examination be performed on support attachments for which the support base material design thickness is 5/8" and greater, and which conform to the configuration of integral attachments referenced in Figures IWB-2500-13 and IWB-2500-15. The supports for which this relief is requested will be inspected by surface examination, however, the frequency of examinations, as defined by 10 CFR 50.55a(b)(2)(ii), will be determined by the requirements of Table IWB-2500 of section XI of the 1974 edition, through the Summer 1975 Addenda because the frequencies in the 1977 Code are not clearly defined for this category.

It should be noted, also, that the Technical Evaluation Report (TER) prepared by Science Applications, Inc. (SAI), recommended the use of the later (1977 edition through Summer 1978 Addenda) ASME code edition as it pertains to examination method. The Authority considers that this relief request meets the intent of the ASME Code, does not reduce the level of safety of the FitzPatrick plant and should be granted. It is the Authority's belief that a surface examination will provide a better inspection and it is requested, therefore, that the NRC denial of this request be reconsidered.

Item B4-6: Branch Pipe Connection Exceeding Six Inch Diameter, and Including Residual Heat Removal (RHR) Weld #20-10-141, Code Category B-J.

The original relief request proposed a surface examination, in lieu of volumetric, on Class 1 branch pipe connection welds greater than six inches in diameter. The basis for this request was the assumption that component geometry would not permit meaningful volumetric inspection. Additionally, the relief request incorrectly referenced the requirements of the 1977 Edition through Summer 1978 Addenda as not requiring volumetric examination of branch connections. Though the later Code did allow substitution of surface examination for volumetric, the cut-off point was 2 inches and less, thereby still requiring a volumetric inspection of the components for which this relief was requested. The 12 inch branch connections and the 20 inch branch connections listed below are the

components associated with the original relief request. The 12 inch welds are all located in the Reactor Water Recirculation System (#1-8), and the 20 inch weld in the RHR System (#9).

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|----|------------|----|------------|
| 1. | 12-03-3-5 | 5. | 12-02-2-62 |
| 2. | 12-02-2-11 | 6. | 12-02-2-68 |
| 3. | 12-02-2-16 | 7. | 12-02-2-73 |
| 4. | 12-02-2-21 | 8. | 12-02-2-79 |
| | | 9. | 20-10-141 |

Subsequently, the Power Authority, in accordance with the requirements of Inspection and Enforcement Bulletin (IEB) 83-02 and Generic Letter 84-11, performed ultrasonic examination on all of the above welds. The technique employed for the detection of intergranular stress corrosion cracking (IGSCC) was at least equivalent to the method referenced in Section XI in regard to examination angle(s), and exceeded the recommended code requirement for instrument sensitivity. Furthermore, the more stringent requirements for personnel qualifications imposed by IEB 83-02 and administered by the Electric Power Research Institute, have enhanced the inspection quality provided these stainless steel welds.

Therefore, the Power Authority, in accordance with Section IWA-2240 of the 1974 Edition, Summer 1975 Addenda, requests that the ultrasonic examinations performed on these branch welds to detect IGSCC be used in lieu of the standard code volumetric examination to meet the ASME Code examination requirements.

SER Table 2 Items

Item C2.1: Welds in Piping, and Fittings; Code Categories C-F and C-G.

Relief was requested from volumetric examination on Class 2 piping and connected components that are 0.5 inches nominal wall thickness or less. The extent of examination for Class 2 RHR, Emergency Core Cooling System (ECCS), or Containment Heat Removal System (CHRS) piping is required by 10 CFR 50.55a(b)(2)(iv), to comply with paragraph IWC-1220, Table IWC-2500 Category C-F and C-G, and paragraph IWC-2411 in the 1974 Edition and Addenda through the Summer 1975 Addenda.

In its relief request the Authority proposed, in accordance with 10 CFR 50.55a(g)(4)(iv), to upgrade the examination method to that of the 1977 Edition through Summer 1978 Addenda requirements. This edition and addenda require that welds in piping of 0.5" or less nominal wall thickness be inspected by surface examination methods, as listed in Table IWC-2500-1.

The TER prepared by SAI recommends use of the later code with regard to examination method. However, the TER states that the frequency of examination must be increased to once per inspection interval from once per plant life. This appears to be a misinterpretation of Table IWC-2500-1. The extent of examination requires 100% of each weld requiring examination be inspected each inspection interval. However, the criteria for selection and the percentage of the welds to be inspected is determined by Note 1 to Table IWC-2500-1. Note 1 states that the frequency of examination for welds in ECCS and RHR piping has not been developed. Therefore, the Authority, while updating to a later code for examination method, will continue to use that of the 1974 Edition, through Summer 1975 Addenda for the frequency and extent of examinations as required by 10 CFR 50.55a(b)(2)(iv).

The Authority requests reconsideration of the denial of this relief request. The Authority is especially concerned since the 1980 Edition through 1981 Addenda of Section XI, to which the FitzPatrick ISI Program will be updated, contains similar requirements, and it is not clear from the SER what inspection requirements are acceptable.

Item C2.1, C2.2, C2.5, Inaccessible Piping Welds: Code Categories C-F and C-G.

The Authority concurs with the SER and current code requirements will be met. Relief from code requirements due to accessibility will be requested in the future on specific welds only in cases where the code requirements cannot be met by examination of alternative welds, or if state of the art inspection techniques cannot assure complete examinations.

Table 5: Class 1 Thin Wall Components, 0.375" or less.

Based on currently available ultrasonic techniques, the Power Authority considers that an adequate examination can be obtained on thin walled piping, and the required Class 1 piping welds will be examined in accordance with code requirements during the 1985 refueling outage.