

January 9, 2001

Mr. Michael Kansler  
Sr. Vice President and Chief Operating  
Officer  
Entergy Nuclear Operations, Inc.  
440 Hamilton Avenue  
White Plains, NY 10601

SUBJECT: BASIS FOR THE NRC STAFF ACCEPTANCE OF THE PROPOSAL FOR NOT  
EXPANDING WELD INSPECTIONS AT JAMES A. FITZPATRICK NUCLEAR  
POWER PLANT (TAC NO. MB0302)

Dear Mr. Kansler:

By letter dated October 18, 2000, the Power Authority of the State of New York (PASNY) submitted for NRC review the technical basis for not expanding the weld inspection sample at James A. FitzPatrick Nuclear Power Plant (JAFNPP). During the current refueling outage (RO 14), your staff performed intergranular stress corrosion cracking (IGSCC) inspections on seven (7) Category D welds at JAFNPP in accordance with guidance provided in Generic Letter (GL) 88-01, "NRC Position on IGSCC in BWR Austenitic Stainless Steel Piping," and BWRVIP-75 report, "BWR Vessel and Internals Project, Technical Basis for Revisions to Generic Letter 88-01 Inspection Schedules," as approved by the NRC safety evaluation (SE) dated September 15, 2000. In accordance with GL 88-01, Category D welds are welds susceptible to IGSCC with no mitigation of stress improvement. Of the 7 Category D welds inspected with ultrasonic techniques during this outage, IGSCC indication was found at a control rod drive (CRD) nozzle to cap weld (N9-C1). This weld was subsequently overlay repaired. The crack was located in the Inconel 600 cap adjacent to the weld. The N9-C1 weldment was made of Inconel 182/82 material and no indication was found in the Inconel 182/82 weld material. The licensee has reviewed the sample expansion guidance in GL 88-01 and BWRVIP-75, and concludes that an expanded weld examination sample is not required.

The NRC staff has reviewed the Power Authority of the State of New York's (PASNY's) technical basis provided in the October 18, 2000, submittal and has determined that PASNY has provided adequate justification to support its sample expansion scheme. PASNY was the licensee at the time of the submittal. However, on November 21, 2000, PASNY's ownership interest in FitzPatrick was transferred to Entergy Nuclear FitzPatrick, LLC, to possess and use FitzPatrick and to Entergy Nuclear Operations, Inc. to possess, use and operate FitzPatrick. The U.S Nuclear Regulatory Commission would continue to review and act on all requests before the Commission which had been submitted by PASNY before the transfer. Accordingly, the staff has completed its review of the technical basis provided in the October 18, 2000, submittal. The staff concludes that the licensee's decision not to expand the weld examination sample during the refueling outage is acceptable because it meets the guidelines set forth in GL 88-01, supplement 1. The staff's conclusion is based on the following considerations:

- (1) The CRD cap weld (N9-C1) is the only weld in the IGSCC program that contains Inconel 600 material, and also is the only Category D weld in the CRD pipe system.

- (2) All other Category D welds not inspected in the current RO were inspected either in RO 12 (1996) or RO 13 (1998). No crack indication was found in those welds.
- (3) In JAFNPP, hydrogen water chemistry (HWC) and noble metal chemical addition (NMCA) have been implemented since January 1989 and November 1999, respectively. HWC and NMCA are known to provide susceptible materials with greater resistance to IGSCC.
- (4) The guidelines in GL 88-01, Supplement 1 allow that the sample expansion for Category D welds may be limited to the piping system where cracking was found when adequate justification is provided.

The staff notes that the licensee utilized improved equipment and procedures in the ultrasonic inspection of CRD cap weld (N9-C1) during this RO. The staff recommends that in future IGSCC inspection the licensee should consider employment of such improved equipment and procedures to enhance the inspection results.

If you have further questions regarding this review, please contact me at 301-415-1441 or e-mail at [gsv@nrc.gov](mailto:gsv@nrc.gov).

Sincerely,

*/RA/*

Guy S. Vissing, Sr. Project Manager, Section 1  
Project Directorate I  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulations

Docket No. 50-333

cc: See next page

- (2) All other Category D welds not inspected in the current RO were inspected either in RO 12 (1996) or RO 13 (1998). No crack indication was found in those welds.
- (3) In JAFNPP, hydrogen water chemistry (HWC) and noble metal chemical addition (NMCA) have been implemented since January 1989 and November 1999, respectively. HWC and NMCA are known to provide susceptible materials with greater resistance to IGSCC.
- (4) The guidelines in GL 88-01, Supplement 1 allow that the sample expansion for Category D welds may be limited to the piping system where cracking was found when adequate justification is provided.

The staff notes that the licensee utilized improved equipment and procedures in the ultrasonic inspection of CRD cap weld (N9-C1) during this RO. The staff recommends that in future IGSCC inspection the licensee should consider employment of such improved equipment and procedures to enhance the inspection results.

If you have further questions regarding this review, please contact me at 301-415-1441 or e-mail at [gsv@nrc.gov](mailto:gsv@nrc.gov).

Sincerely,

*/RA/*

Guy S. Vissing, Sr. Project Manager, Section 1  
Project Directorate I  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulations

Docket No. 50-333

cc: See next page

DISTRIBUTION:

PUBLIC  
SLittle  
ACRS

PDI-1 R/F  
MGamberoni  
BPlatchek

GVissing  
OGC

ACCESSION NUMBER: ML003772437

OFFICE	PDI-1/PM	PDI-1/LA	PDI-1/SC
NAME	GVissing	SLittle	MGamberoni
DATE	1/4/01	1/3/01	1/5/01

OFFICIAL RECORD COPY

James A. FitzPatrick Nuclear Power Plant

Mr. Jerry Yelverton  
Chief Executive Officer  
Entergy Operations  
1340 Echelon Parkway  
Jackson, MS 39213

Mr. Theodore H. Sullivan  
Vice President Operations  
Entergy Nuclear Operations, Inc.  
James A. FitzPatrick Nuclear Power Plant  
P.O. Box 110  
Lycoming, NY 13093

Mr. Dan Pace  
Vice President, Engineering  
Entergy Nuclear Operations, Inc.  
440 Hamilton Avenue  
White Plains, NY 10601

Mr. John Kelly  
Director - Licensing  
Entergy Nuclear Operations, Inc.  
4400 Hamilton Avenue  
White Plains, NY 10601

Mr. George Tasick  
Licensing Manager  
Entergy Nuclear Operations, Inc.  
James A. FitzPatrick Nuclear Power Plant  
P.O. Box 110  
Lycoming, NY 13093

Resident Inspector's Office  
U. S. Nuclear Regulatory Commission  
P.O. Box 136  
Lycoming, NY 13093

Mr. Harry P. Salmon, Jr.  
Director of Oversight  
Entergy Nuclear Operations, Inc.  
440 Hamilton Avenue  
White Plains, NY 10601

Ms. Charlene D. Faison  
Licensing  
Entergy Nuclear Operations, Inc.  
440 Hamilton Avenue  
White Plains, NY 10601

Supervisor  
Town of Scriba  
Route 8, Box 382  
Oswego, NY 13126

Charles Donaldson, Esquire  
Assistant Attorney General  
New York Department of Law  
120 Broadway  
New York, NY 10271

Regional Administrator, Region I  
U.S. Nuclear Regulatory Commission  
475 Allendale Road  
King of Prussia, PA 19406

Oswego County Administrator  
Jack Tierney  
46 East Bridge Street  
Oswego, New York 13126

Mr. F. William Valentino, President  
New York State Energy, Research,  
and Development Authority  
Corporate Plaza West  
286 Washington Avenue Extension  
Albany, NY 12203-6399

Mr. Arthur Zaremba, Licensing Manager  
Director, Safety Assurance  
Entergy Nuclear Operations, Inc.  
James A. FitzPatrick Nuclear Power Plant  
P.O. Box 110  
Lycoming, NY 13093

Mr. Paul Eddy  
Electric Division  
New York State Dept. of Public Service  
3 Empire State Plaza, 10th Floor  
Albany, NY 12223

Michael J. Colomb  
General Manager  
Entergy Nuclear Operations, Inc.  
James A. FitzPatrick Nuclear Power Plant  
P.O. Box 110  
Lycoming, NY 13093

James A. FitzPatrick Nuclear Power Plant

Mr. James Knubel  
Vice President, Operations Support  
Entergy Nuclear Operations, Inc.  
440 Hamilton Avenue  
White Plains, NY 10601

Mr. John M. Fulton  
Assistant General Counsel  
Entergy Nuclear Generation Co.  
Pilgrim Station  
600 Rocky Hill Road  
Plymouth, MA 02360

Mr. J. Spath, Program Director  
New York State Energy, Research, and  
Development Authority  
Corporate Plaza West  
286 Washington Avenue Extension  
Albany, NY 12203-6399

Mr. Ronald Schwartz  
SRC Consultant  
64 Walnut Drive  
Spring Lake Heights, NJ 07762

Mr. Ronald J. Toole  
SRC Consultant  
Toole Insight  
605 West Horner Street  
Ebensburg, PA 15931

Mr. Charles W. Hehl  
SRC Consultant  
Charles Hehl, Inc.  
1486 Matthew Lane  
Pottstown, PA 19465