

OFFICIAL COPY

DUKE POWER COMPANY

POWER BUILDING

422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

June 3, 1981

TELEPHONE: AREA 704
373-4083

Mr. James P. O'Reilly, Director
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, Suite 3'00
Atlanta, Georgia 30303

Re: McGuire Nuclear Station Unit 1
Docket No. 50-369



Dear Mr. O'Reilly:

Please find attached Reportable Occurrence Report RO-369/81-77. This report concerns rejectable indications found in the vendor seal plate to door frame welds on the personnel locks. This incident was considered to be of no significance with respect to the health and safety of the public.

Very truly yours,

William O. Parker Jr.

William O. Parker, Jr.

RWO:pw
Attachment

cc: Director
Office of Management and Program Analysis
U. S. Nuclear Regulatory Commission
Washington, D. C.

Mr. Bill Lavallee
Nuclear Safety Analysis Center
P. O. Box 10412
Palo Alto, CA 94303

Ms. M. J. Graham
Resident Inspector - NRC
McGuire Nuclear Station

IE22
5/11

8107310368 810603
PDR ADOCK 05000369
S PDR

McGUIRE NUCLEAR STATION
INCIDENT REPORT

Report Number: 81-77

Report Date: June 3, 1981

Occurrence Date: May 21, 1981

Facility: McGuire Nuclear Station Unit 1, Cornelius, N. C.

Introduction: An ASME Code deviation was discovered during retrofitting and minor alteration work on the McGuire Nuclear Station Unit 1 personnel locks. The personnel locks, therefore, not being in full Code compliance did not meet the specified requirements of the McGuire FSAR, Section 3.8.2.1 (2).

The deviation was first discovered on May 5, 1981. Subsequent verification, evaluation and additional examination was conducted from May 5, 1981 to May 19, 1981. The deviation was reported on Thursday, May 21, 1981 to Mr. Art Johnson of the NRC, Region II, by Mr. D. B. Lampke.

Background Information: The four (4) personnel locks (two per unit) for the McGuire Nuclear Station were designed by the W. J. Woolley Company of River Forest, Illinois. This company also supervised the fabrication of the locks by their subcontractor, Progressive Fabricators, Inc., of St. Louis, Missouri.

The general arrangement of the personnel locks is the same for all four locks. The locks are Class B Vessels constructed and stamped in accordance with the 1968 ASME Code, including addenda through the summer of 1970.

Each personnel lock has four (4) inflatable seals per lock, two (2) for each door. For the past several months, Duke Power Company, together with W. J. Woolley Company and several inflatable seal manufacturers, have been working to solve a separate problem involving a number of seal failures. A part of the retrofitting related to the seal problem involved welding shim plates to the stainless steel seal plates on the door frames in order to minimize the seal closure gap.

Description of Deficiency: During nondestructive examination of the shim plate welds, Code rejectable indications were found in the vendor seal plate to door frame welds. The vendor was contacted concerning the nature and examination requirements for these welds. The welds were identified to be non-structural seal welds. A review of the Code of record by the Owner indicates that the welds in question require liquid penetrant (PT) or magnetic particle (MT) inspection for full code compliance. W. J. Woolley Company records indicated that the welds were inspected and accepted by the fabricator. However, when reinspected by the Owner, the welds did not pass the acceptance criteria.

Safety Implications: The welds to the seal plate are not structural welds, and are classified as seal welds only. As such the welds have no technical minimum size requirement and are only required to perform a sealing function. Bypass leakage from containment can only occur if each weld has a thru-thickness defect. Redundancy is accomplished by having two welds per seal, two seals per door and two doors per lock.

The welds in question have passed numerous leak rate tests. In addition, they will be leak tested a minimum of once each 72 hours during plant operation. If leakage is detected in excess of that permitted by the plant Technical Specifications, standard procedures are in effect to locate and repair the source of the leakage. Thus, standard plant operating procedures would have precluded excessive bypass leakage that could have caused a safety hazard.

Corrective Action: All seal plate welds for the Unit 1 McGuire personnel locks were PT inspected by the Owner. The inspection, including acceptance criteria, was done in accordance with the Owner's approved procedures and the ASME Code. All rejectable indications were removed by grinding and/or welding and re-tested. All weld repairs were done in accordance with ASME Code requirements and were reviewed by the Authorized Code Inspector.

Following inspection and repair work, each air lock was pressure tested and leak rate tested to the requirements of the Station Technical Specifications.

The corresponding welds for the McGuire Unit 2 personnel locks will be inspected, tested and repaired, as required. This work will be completed by December 31, 1982.