

USNRC REGIONAL
DUKE POWER COMPANY

POWER BUILDING

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

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WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

December 28, 1981

TELEPHONE AREA 704
373-4083

Mr. J. P. O'Reilly, Regional Administrator
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

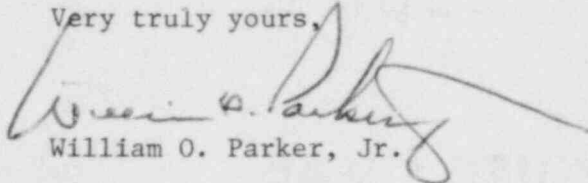
Re: McGuire Nuclear Station Unit 1
Docket No. 50-369

Dear Mr. O'Reilly:

Please find attached Reportable Occurrence Report RO-369/81-180. This report concerns T.S.3.6.1.5, "Primary containment average air temperature shall be maintained:...b. Between 100°F and 120°F in the containment lower compartment." This incident was considered to be of no significance with respect to the health and safety of the public.

Note that this report is not being submitted within the specified 30 day period as was discussed in my letter dated December 14, 1981.

Very truly yours,



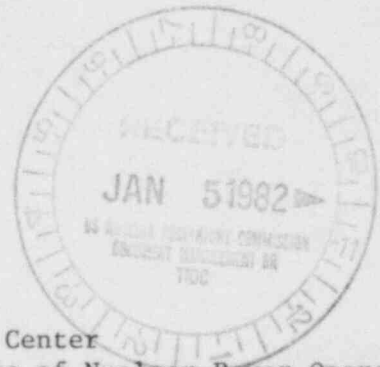
William O. Parker, Jr.

PBN/jfw
Attachment

cc: Director
Office of Management and Program Analysis
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Records Center
Institute of Nuclear Power Operations
1820 Water Place
Atlanta, Georgia 30339

Mr. P. R. Bemis
Senior Resident Inspector-NRC
McGuire Nuclear Station



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and the BIF on Unit 1 was IRN863. As a result, the NEO unintentionally isolated Unit 1 RV instead of Unit 2 RV.

CORRECTIVE ACTION: The immediate corrective action was to reopen IRN153 (BIF) and restore cooling water to the VL units. The metal tags on the two valves were switched so that the labels agreed with the flow diagram and the Construction valve documentation has been changed.

VERIFICATION: Approximately ten minutes after IRN153 was reopened the containment temperature had decreased from 140°F to 130°F and was within Tech Spec limits at 1800. Switching the metal valve labels permanently corrected the primary cause of the incident.

SAFETY ANALYSIS: The containment temperature was only excessive (140-145°F) for about ten minutes and was quickly brought under control once IRN153 was reopened. In addition, the lowest temperature rated cable in containment is designed to withstand 90°C (194°F) continuously. No equipment damage occurred during the ten minutes when the temperature was approximately 140°F. The plant's concrete structures are designed to American Concrete Institute (ACI) 318-71 and there would be cause for concern if the temperature was greater than 150°F for prolonged periods of time. The containment temperature, however, was only 140°F for about ten minutes. Thus, no heat damage to containment and equipment occurred and the health and safety of the public were unaffected by this incident.

DUKE POWER COMPANY
McGUIRE NUCLEAR STATION
REPORTABLE OCCURRENCE REPORT NO. 81-180

REPORT DATE: December 28, 1981

FACILITY: McGuire Unit 1, Cornelius, NC

IDENTIFICATION: Containment Temperature Exceeded the Technical Specification Limit

INTRODUCTION: On November 12, 1981 at 1520, the containment temperature exceeded Technical Specification 3.6.1.5 limits (120°F) and two temperature sensors indicated as high as 145°F. For personnel safety reasons the containment was evacuated. Prior to the incident Unit 1 was at 48% power with all four lower containment ventilation (VL) fans in high speed.

A nuclear equipment operator (NEO) who was working with an assistant operating engineer, was isolating the Unit 2 containment ventilation cooling water (RV) system from the Unit 2 nuclear service water (RN) system. At approximately 1510 he closed boundary valve IRN153 (Unit 1 VL Return Isolation) which had been labeled IRN863 (Unit 2 VL Return Isolation) by Construction. This caused an inadvertent isolation of RV to the Unit 1 VL system. With no cooling water, the containment temperature began to increase. After the high temperature was discovered (containment evacuation alarm sounded), the NEO immediately reopened IRN153 restoring RV to the VL units. Within ten minutes the containment temperature decreased from 140°F to 130°F and the temperature was within Technical Specification limits at 1800. Since the temperature exceeded the limits specified in Tech Spec 3.6.1.5, this incident is reportable. The cause for this incident was determined to be an administrative deficiency.

EVALUATION: When the NEO initially closed IRN153 (labeled as IRN863) he noticed that he seemed to be throttling flow through the valve even though no flow should have existed and he notified the assistant operating engineer. The engineer rechecked the flow diagram and verified that IRN863 was the correct valve to close. The engineer also notified a control room operator that the valve had been closed. By the time the control operator notified the NEO to reopen IRN153, the containment temperature had exceeded the Tech Spec limit.

The mislabeling of IRN153 as IRN863 was initiated several years ago when two twelve inch butterfly valves were ordered with the same label and item number (IRN153); one valve was a Pratt, the other a BIF. The Pratt was installed on Unit 2 when the system was initially built and was labeled as IRN153. During the performance of the Isolation Valve Leak Rate Test in 1979 it was discovered that a corresponding Unit 1 valve was needed. The BIF model was available but it was also labeled as IRN153 so it was decided to relabel it as IRN863. The BIF manufacturer was notified to revise his paperwork to reflect the new valve number but he indicated that this would be difficult to do. The Pratt manufacturer was then contacted and he indicated that a paperwork revision would not be difficult. Subsequently, the Pratt was renamed as IRN863 and the BIF was changed back to IRN153. The flow diagram was updated to reflect this latest change but the Construction drawings were never revised; thus, the Pratt installed on Unit 2 was still labeled IRN153