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CONTROL NO: 10429

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FROM: Wisconsin Public Service P.O.Box 1200, Green Bay, Wis 54305 E. W. James	DATE OF DOC 10-4-74	DATE REC'D 10-8-74	LTR xxx	TWX	RPT	OTHER
TO: Mr. J. F. O'Leary	ORIG 1	CC	OTHER	SENT AEC PDR xxxxxxxxx SENT LOCAL PDR xxxxxxx		

CLASS	UNCLASS	PROP INFO	INPUT	NO CYS REC'D	DOCKET NO:
	xxxxx			1	50-305

DESCRIPTION:
Ltr Reporting Abnormal Occurrence on 9-26-74 concerning Observed Inadequacy of Administrative Controls.....

ENCLOSURES:
ACKNOWLEDGED
DO NOT REMOVE

PLANT NAME: Kewaunee Nuclear Plant

FOR ACTION/INFORMATION 10-9-74 JGB

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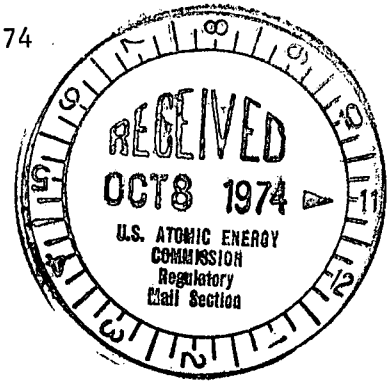
Sent to Lic Asst. Sheppard

WISCONSIN PUBLIC SERVICE CORPORATION

P.O. Box 1200, Green Bay, Wisconsin 54305

Regulatory File Cy:

October 4, 1974

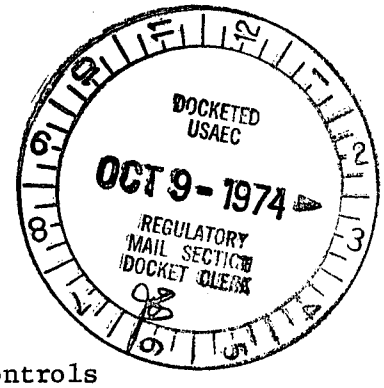


Mr. J. F. O'Leary, Director
Directorate of Licensing
Office of Regulation
U. S. Atomic Energy Commission
Washington, D. C. 20545

Dear Mr. O'Leary:

Subject: Docket 50-305
Operating License DPR-43
Abnormal Occurrence Report

In accordance with the requirements of Technical Specifications, Paragraph 6.6.2.a and 1.0a.3, we submit the following:



Report Number: 50-305/74-17

Report Date: October 4, 1974

Occurrence Date: September 26, 1974

Facility: Kewaunee Nuclear Power Plant
Kewaunee, Wisconsin

Identification of Occurrence: Observed inadequacy of Administrative Controls

Conditions Prior to Occurrence:
Cold Shutdown
Boron Concentration 1596 ppm
Reactor Coolant average temperature 110°F
Residual Heat Removal System (RHR) in service
Safeguard buses 1-5 and 1-6 with their associated motor control centers energized and supplied by the normal sources.
Instrument bus four energized and supplied by the normal source, MCC1-52C.
Instrument bus four "stand-by" supply from BRA-104, batteries, was de-energized with its associated annunciator disabled, turned off.
Steam Generator primary manways open for steam generator inspection and eddy current testing, which was in progress with one man in a steam generator.

10429

Containment integrity was not required; both personnel airlock doors were open and station air to containment was on.

Relay testing in progress on 4160 and 480 volt breakers in accordance with normal maintenance practices.

Description of Occurrence:

The relay test group requested permission to check breaker 15201 which is the normal supply to bus 1-52. The Shift Supervisor consistent with previous practices, ordered the transfer of bus 1-52 supply from bus 1-5 to the alternate, bus 1-62. The transfer requires a de-energization of bus 1-52 prior to closing the supply breakers from bus 1-62. Upon de-energization of bus 1-52, at 0852 computer time, instrument bus four de-energized since its battery backup supply breaker was open.

The loss of instrument bus four resulted in the loss of power to PC419B which closed valve RHR 1A, the suction path for the RHR pumps from the reactor coolant system. The numerous alarms and loss of instrument power alerted the operators to the loss of instrument bus four. The bus was subsequently re-energized and the condition of the standby supply and its annunciator noted.

At approximately 0913, the control room was informed that steam was exiting the reactor coolant system through the steam generator manways and that the water level had increased in the RCS and water was also spilling out of the generator manways.

One man had been working in a generator and was forced to exit when steam began to enter the hot leg inlet. Containment was subsequently evacuated by all personnel.

The RHR system flow was noted to be zero and pump discharge pressure was 60 psi. At 0914, normal RHR suction was re-established by opening valve RHR 1A and normal core cooling proceeded. Reactor coolant temperature was reduced to approximately 125°F by 0918 and at 1000 the temperature was 110°F.

Designation of the Apparent Cause of Occurrence: The failure of Administrative Controls to assure that correct electrical system alignment is maintained to provide DC backup to the instrument buses was the apparent cause of the occurrence.

Analysis of Occurrence: At 0909 the hottest incore thermocouple indicated a temperature of 214.4°F. The initiation of boiling within the core would limit the rise in average bulk reactor coolant system temperature to approximately 214°F.

The loss of instrument bus four would cause all failsafe actions of bus four instruments to initiate. These failsafe actions included trips, opening and closing of certain valves and starting various equipment. The protection system actions which require more than one channel to initiate did not and would not be expected to commence. Any protection action which only requires a one out of two logic or a one out of one logic would occur. A review of the systems was performed following the incident to restore all systems to a normal configuration.

The RHR pumps were operated for a period in excess of 20 minutes with a closed suction valve. Upon reinitiation of proper suction, no obvious difference in pump operating characteristics were noted.

An analysis was performed by the WPS Fuel Management Staff which indicated that all stresses within the fuel during the transient were well below the clad stress limits.

The man who was located inside of the steam generator excited prior to water relief and was not injured. No personnel exposure was directly attributable to this incident. Since work was in progress within the primary side of the steam generators, the personnel involved did receive some exposure, however, the exposures per unit time of work were not noticeably high during this incident.

No activity was released to the environment. Upon exiting containment, the personnel closed the inner airlock door which effectively established containment integrity. The primary coolant activity was less than 2.5×10^{-9} uci/cc gross B, α, $\bar{\gamma}$. The spill areas were cleaned to levels consistent with the remainder of the containment. Steam generator work was then able to proceed later in the afternoon of the 26th.

With the re-establishment of containment integrity, all releases from the reactor coolant system would be contained and no consequences would result which would affect public safety.

Corrective Action: To prevent reoccurrence the battery room shall be locked and access controlled by the Shift Supervisor.

Very truly yours,

E. W. James
Senior Vice President
Power Generation & Engineering

EWJ:sna

cc - Mr. James G. Keppler, US AEC - Region III
Mr. Dwane Boyd, US AEC - Resident Inspector