Washington Public Power Supply System
A JOINT OPERATING AGENCY

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Nuclear Regulatory Commission
Region V
Suite 202 Walnut Creek Plaza
1990 N. California Boulevard
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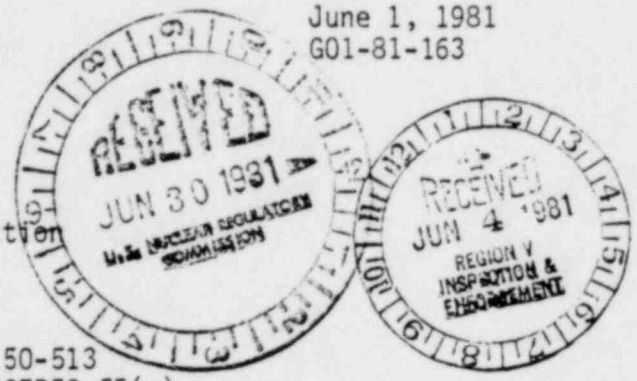
June 1, 1981
G01-81-163



Attention: Mr. B. H. Faulkenberry
Chief, Reactor Construction
Projects Branch

Subject: PROJECTS 1 AND 4
DOCKET NOS. 50-460 AND 50-513
REPORTABLE CONDITION 10CFR50.55(e)
SPENT FUEL CASK HANDLING CRANE

Reference: 1) Telecon TJ Houchins, Supply System to DF Kirsch, Region V Nuclear Regulatory Commission dated January 7, 1981

2) G01-81-27, dated February 2, 1981, DW Mazur to RH Engelken, Director

In reference 1) the Supply System informed your office of a reportable deficiency under 10CFR50.55(e) and reference 2) was an interim report on the subject condition.

Attachment A includes a restatement of the reportable condition and a brief description of our selected alternative for correcting the deficiency. Although a final alternative has been selected, not all of the details and schedules have been completed by Engineering; therefore, in keeping with reference 2), we are submitting this report (Attachment A), however, this should also be considered an interim report pending completion of the Engineering design. A final report will be submitted by November 1, 1981. This report will be more explicit regarding the details of the selected alternative.

If you have any questions or desire further information, please advise.

Very truly yours,

D. W. Mazur
Program Director
WNP-1/4

Attachments
DWM:MER:pm
cc: CR Bryant, Bonneville Power Administration/399

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ATTACHMENT A
WNP-1/4
DOCKET NOS 50-460 AND 50-513
REPORTABLE CONDITION 10 CFR 50.50(e)
SPENT FUEL CASK HANDLING SYSTEM INTERIM REPORT

BACKGROUND

As described in the WNP-1/4 PSAR in 1973, the spent fuel storage pool and handling equipment was designed based on a 150 ton spent fuel cask dropping a maximum distance of 30 feet in the General Services Building (GSB). The structural design was based on analysis of missile penetration into a rigid barrier at that time. It was determined, based on the analysis, that the structure could withstand the drop of the loaded cask due to a single failure or as a result of SSE without affecting the ability to shut down the plant.

DESCRIPTION OF DEFICIENCY

It has been determined that more restrictive load limits must be placed on the GSB structure as the previous analysis was non-conservative. The GSB could not withstand the drop of a 150 ton spent fuel cask through 30 feet without affecting critical plant equipment.

SAFETY IMPLICATIONS

The drop of a 150 ton cask could damage critical plant equipment either through direct impact, through the spalling of concrete, or by affecting the building structure and subsequently the equipment itself. The Containment Spray System, Decay Heat Removal System and Auxiliary Feedwater System could be affected by the drop.

REPORTIBILITY

It was determined that the condition, if left uncorrected could have affected adversely the safety of operation of the plant upon failure of the spent fuel cask crane. This condition has been determined to be reportable.

CORRECTIVE ACTION TAKEN

Modification of the existing spent fuel cask handling cranes (1 per plant) to be seismically qualified accompanied by modifications to the lifting device to make it redundant will meet the requirements. The reliance for the safe handling of critical loads as defined in NUREG 554 will be placed on the Crane System itself. The system will be redesigned for the lifted load, so that a single failure will not result in the loss of the capability of the system to safely retain the load.

Once the details of this alternative are finalized, a final report will be prepared and submitted. This report will be submitted by November 1, 1981.