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NRC**Washington Public Power Supply System**

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REGION VICE

April 21, 1982  
G01-82-0151Nuclear Regulatory Commission  
Region V  
1450 Maria Lane, Suite 210  
Walnut Creek, California 94596Attention: Mr. R. H. Faulkenberry  
Chief, Reactor Construction  
Projects BranchSubject: NUCLEAR PROJECTS 1 AND 4  
REPORTABLE 10CFR50.55(e)  
BUFFALO FORGE FAN HOUSING MISSILE PROTECTION

- References:
- 1) Telecon CR Edwards, Supply System to PP Narbut, Region V, Nuclear Regulatory Commission dated August 24, 1981
  - 2) BFUE-81-5017, dated June 11, 1981, JA Cownie to DW Mazur
  - 3) UEWP-81-736, dated August 28, 1981, HC Grau to GK Dyekman
  - 4) GO-181-321, dated September 25, 1981, DW Mazur to RB Faulkenberry
  - 5) GO-1-82-0020, dated January 18, 1982, DW Mazur to RB Faulkenberry

In reference 1) the Supply System informed your office of a potentially reportable condition under 10CFR50.55(e). In reference 2) the manufacturer of the subject fans, Buffalo Forge Company, identified to the Supply System a design deficiency associated with the missile protection characteristics of the fans supplied to WNP-1/4 under the guidelines of 10CFR21. In references 4) and 5) the Supply System provided your office with interim reports on the subject deficiency.

Attachment A to this letter, provides a restatement of the problem and an update on our planned corrective action. This letter is also our formal notification to you that we have decided to report this deficiency as a Reportable Condition under 10CFR50.55(e). Engineering has not performed an indepth analysis as to what safety related equipment (SRA) would be affected by a fan failure; rather, it has been decided to modify the fan housings to protect adjacent SRA equipment and personnel in the event of a fan failure. Therefore, as a result the Project is unable

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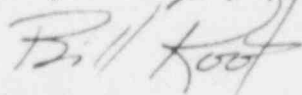
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R. H. Faulkenberry  
Buffalo Forge Fan  
Page 2

April 21, 1982  
G01-82-0151

to assess the total overall safety significance of the deficiency and has determined that it should be reported to your office as though it were a fully reportable condition. The completion date for the fan housing modifications has not yet been established because the design fix is still being negotiated with the manufacturer. We will continue to provide your office with quarterly interim status reports on the progress of the subject condition.

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



R. W. Root  
Acting Program Director

RWR:MER:lm

Attachment

cc: CR Bryant, BPA/399  
EW Edwards, Bechtel/860  
V. Mani, UE&C/896  
V. Stello, Director of Inspection, NRC  
A. Toth, NRC  
FDCC/899

ATTACHMENT A  
WNP-1/4  
DOCKET NOS. 50-460 AND 50-513  
REPORTABLE CONDITION 10CFR50.55(e)  
MISSILE PENETRATION FOR BUFFALO FORGE FANS

BACKGROUND

Buffalo Forge Company, notified the Supply System on June 10, 1981 of a deficiency in the fan housing design in regard to missile penetration, in that, it did not conform to the specification requirements. The manufacturer, Buffalo Forge Company, has reported the design deficiency to the NRC under the guidelines of 10CFR Part 21.

DESCRIPTION OF DEFICIENCY

The failure of the fan housing to stop missiles generated in the radial direction in the event of interior component failure, including wheel and motor, could damage safety related (SRA) equipment.

It has been determined that safety related equipment is located in and around the area where these fans are located. Rather than perform a failure analyses to determine what SRA equipment could be adversely affected by a fan failure it was decided to rework the fan housings to preclude any damage other than to the fan itself, this then renders the safety significance indeterminate.

STATUS OF CORRECTIVE ACTION

On December 2 and 3, 1981 two Buffalo Forge Engineering representatives were at the WNP-1/4 jobsite to discuss the subject design deficiency. Discussions were held with Supply System and UE&C Engineering for the purpose of determining the best design fix. Rather than proposing one generic solution applicable to all fans, each of the fans was reviewed individually to determine the most appropriate corrective action based on the fans location within the plant.

It has been determined that there is a combined total of twelve (12) Buffalo Forge Fans in safety related areas within both the Containment and General Services Building (GSB) for each unit. To protect the integrity of the safety related equipment within the immediate area of the fans and assure personnel safety, corrective actions have been proposed by Buffalo Forge and are under review by the A/E. Because the fans are "Vaneaxial" type, the manufacturer proposes to mount reinforcing plates on the fan housing over the fan wheel area. A determination as to the acceptability of this proposed fix should be made by July 1, 1982.

A completion date for the actual work has yet to be determined. The Project is currently negotiating with the manufacturer to have the corrective actions implemented.