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April 23, 1993
ND3MNO:3448

Beaver Valley Power Station, Unit No. 1
Docket No. 50-334, Licensee No. DPR-66
Special Report

United States Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

Gentlemen:

In accordance with Beaver Valley Unit 1 License Condition 2.C.5, the following Special Report is submitted. The report identifies several degraded fire seals found while performing routine surveillance test 1BVT 1.33.5, "Fire Rated Assemblies and Electrical Penetration Flood Seals Visual Inspection."

The following deficiencies are identified:

1. On March 25, 1993, a two-inch conduit (1CC153NA) located between the cable tray mezzanine and the control rod drive motor-generator set room was found without an internal conduit seal in either fire area.
2. On March 25, 1993, two internal conduit seals were found missing in conduits running between the main steam valve room and the auxiliary feedwater pump room (MSV-752-16 & 17).
3. On March 27, 1993, a two-inch PVC pipe drain line was found which extended through a wall between the primary auxiliary building and the safeguards pipe tunnel area on the 722' level.

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4. On April 2, 1993, there were five conduits found without internal seals in the wall between the east and west emergency switchgear rooms.

Eight of the nine penetrations identified above were missing internal conduit seals. Immediate corrective actions were to post a fire watch in the affected area(s) until the permanent internal seals were installed. All of these conduits were two inches or less. The remaining deficiency was the two-inch PVC drain pipe which penetrated a fire barrier. The pipe was removed and the penetration sealed.

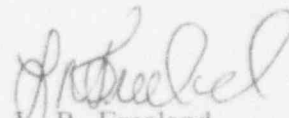
The degraded penetration seals were evaluated for potential impact on safe shutdown capability in accordance with 10CFR50 Appendix R and the Beaver Valley fire protection program. It was determined that the degraded penetration seals could have adversely impacted safe shutdown capability given a fire event in the affected area and assuming that the fire physically spreads across the penetration barrier to the adjacent room. The potential impact on safe shutdown capability of the station is based on the Appendix R requirement for the separation of redundant safe shutdown equipment by rated fire barriers. The safe shutdown analysis criteria states that if a fire barrier is not present between the two areas, a fire starting in one area could spread to the other area, damaging safe shutdown related cables or equipment in the area. In addition, the actual conditions observed, such as size of the hole and combustible material in the area, were considered in the evaluation. The areas were reviewed and found to contain minimal fire loading in the immediate area of the penetrations.

As noted above, these deficiencies were discovered during programmatic inspections. The program inspects a selected number of penetrations each cycle and this was the first round of internal conduit seal inspections that included these penetrations. Thus, the program has been effective in locating and correcting penetration deficiencies.

The current performance of the surveillance is being expanded to ensure that the inspection of the remaining fire seals, in those areas in which deficiencies were found to affect safe shutdown capability, will be completed by the end of this refueling outage. The inspection of the remaining penetrations will continue, with a goal of completing 100% of the remaining penetrations, accessible at power, by July 31, 1993.

April 23, 1993
ND3MNO:3448
Page 3

Since the original installation of the affected seals, procedures have been refined with improved detail regarding the installation of penetration seals. The program currently in place is designed to prevent future fire penetration deficiencies.

A handwritten signature in dark ink, appearing to read "L. R. Freeland".

L. R. Freeland
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April 23, 1993
ND3MNO:3448
Page 5

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