

**Omaha Public Power District**  
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402/536-4000

April 9, 1986  
LIC-86-118

Mr. Ashok C. Thadani, Project Director  
PWR Project Directorate #8  
Division of PWR Licensing - B  
Office of Nuclear Reactor Regulation  
U. S. Nuclear Regulatory Commission  
Washington, DC 20555

References: (1) Docket No. 50-285  
(2) Letter NRC (J.R. Miller) to OPPD (R.L. Andrews) dated  
July 3, 1985

Dear Mr. Thadani:

10 CFR 50 - Appendix R

As a result of an NRC audit of OPPD's compliance with the fire protection requirements of Appendix R to 10 CFR 50, OPPD requested several exemptions from the requirements. Some of these exemptions were based on commitments to perform certain modifications. By Reference (2), the NRC granted these exemptions based on completion of these modifications. As has been discussed with Mr. E. Tourigny of your office, OPPD complied with 10 CFR 50 Appendix R rule requirements in some instances in a different manner than stated in Reference (2). The changes are consistent with the intent of Reference (2) and are being provided to document the steps which have been taken. These changes have been concurred with by your technical staff. The specifics are detailed as follows:

Paragraph 3.2 of the Safety Evaluation Report (SER) of Reference (2), states that OPPD committed to:

1. installation of radiant energy shields:
  - a. "between redundant auxiliary pressurizer spray valves HCV-240 and HCV-249."
  - b. "between their associated junction boxes JB-103C and JB-252C."
  - c. "on the existing platform at elevation 1022' -0" between column line 14 and column line 1."

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- d. "on the existing platform at elevation 1013' -0" between column line 1 and column line 3."
- e. "on the existing platform at elevation 1013' -0" near column line 5 beneath existing instrument rack AI-127C."

Installation of these radiant energy shields was completed during the 1985 refueling outage per modification MR-FC-85-23. All shields discussed above, with the exception of (b) were installed. Separation/Protection of the redundant junction boxes was accomplished by the relocation of JB-252C per modification MR-FC-85-24 (discussed later). This moved the junction box so that the two are separated by the radiant energy shield discussed in (a) above. Thus, valve HCV-240 and its junction box, JB-103C, are separated from valve HCV-249 and its junction box, JB-252C, ensuring availability of at least one auxiliary pressurizer spray valve in the event of any credible fire in containment.

- 2. a. "additional protection such as a fire-wrap or a thermal energy shield will be provided for the 28-foot run of redundant cables (for valves HCV-240 and HCV-249)..."
- b. "Cables (sic) 3473A for LT-101Y will be rerouted in containment"

These two commitments were met per installation of modification MR-FC-85-24 during the 1985 refueling outage. For item (a), above, the additional protection already completed by OPPD was to reroute cable EA3650A for valve HCV-240 such that separation/protection is attained by the combination of the radiant energy shields discussed above and by 20-foot separation. For item (b), cable 3473A was rerouted as described in the SER.

Per paragraph 5.2 of the SER, OPPD committed to:

- 3. "extend the existing barrier at the auxiliary feed pumps in an "L" shaped configuration. The barrier will be of a U.L. approved design, constructed of material that will have a 1-hour fire rating."

This commitment has been met per the installation of MR-FC-84-126. The modification was installed as described in the SER.

- 4. "an area wide preaction sprinkler system will be installed (in fire area 32) in accordance with NFPA-13. Actuation of the system will be controlled by ionization detectors located in the room. Design of the system will take into account any obstructions in the area and sprinkler heads will be located to assure area-wide coverage. Shields will be erected to protect vital electrical equipment in the room such as the motor-driven auxiliary feedwater pump. Additionally, spray nozzles will be installed along with (sic) cable trays to provide adequate coverage to protect against any fire that may develop in the cable tray system."

This commitment was met by the installation of modifications MR-FC- 84-127 and MR-FC-84-128. The fire detection system in this room was expanded from thirteen detectors to thirty-five detectors. Due to this increase in the scope of the detection system, the size of the room, and taking full advantage of the capabilities of the new detection system, the more conservative priority-matrix scheme of initiation was chosen instead of the stated cross-zoned actuation system. Spray shields have been installed on the fire water piping to protect the vital electrical equipment in the room in the event of a pipe rupture. Umbrella-type shields were not installed over the equipment, recognizing the fact the the electrical equipment itself is a possible ignition source. The combination of the preaction suppression system and the above discussed fire barrier between the redundant auxiliary feedwater pumps provides adequate assurance that at least one train of equipment required for safe shutdown of the plant will survive any credible fire in the area and any subsequent fire fighting activities.

Fire area 32 consists of the air-compressor room (rm. 19) at elevation 989', and a small corridor (rm. 53) at elevation 1011'. No redundant cables or equipment required for safe shutdown are located in room 53. No credible fire originating in room 53 could spread to room 19. For this reason, the suppression system was installed in room 19 only.

(It should be noted that the last sentence of the fifth paragraph of section 5.2 of the SER should read, "...will be installed along the cable trays...")

Per Paragraph 6.2 of the SER, OPPD committed to:

5. "reroute power feeder cables in the lower electrical penetration room for MCC's-3A1, 3B1, and 3C1 in steel conduits and to completely protect the conduits in the lower penetration room by a 1-hour fire-rated barrier."

This commitment was met per the installation of MR-FC-85-25. The original intent of this modification was to reroute these cables outside of this fire area, thus minimizing the length of cable run in the room that would be required to be fire-wrapped. Field inspection, however, indicated a better routing for these cables which required no conduit in the fire area of concern. This is within the original intent of the commitment in that the cables are provided with a 1-hour fire rating.

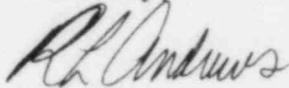
6. "provide an alternate shutdown capability for the vulnerable shutdown systems in the upper penetration room."

This capability has been provided and is documented in Abnormal Operating Procedure, AOP-6.

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The above described modifications were completed by the commitment date of, "30 days following the end of the 1985 refueling outage" (February 15, 1986). OPPD request that you revise Reference (2) to reflect the above stated conditions. If you should have further questions, please do not hesitate to contact us.

Sincerely,



R. L. Andrews  
Division Manager  
Nuclear Production

RLA/RPC/me

cc: LeBoeuf, Lamb, Leiby & MacRae  
1333 New Hampshire Ave., N.W.  
Washington, DC 20036

E. G. Tourigny, NRC Project Manager

P. H. Harrell, NRC Senior Resident Inspector