From: Ray Mullikin / RIV
To: Claude Johnson
Date: 7/9/03 3:34PM
Subject: PV Manual Action Chronology

Claude:

Attached is the letter you wanted.

Ray

Information in this record was deleted in accordance with the Freedom of Information Act, exemptions 5
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BB-14

Introduction

The Palo Verde Nuclear Generating Station has substituted manual operator actions in lieu of physical protection as required by 10 CFR Part 50, Section III.G.2.

Discussion

1. A November 13, 1984, letter (Attachment 1) from the licensee to the NRC provided detailed of several manual actions taken for fires outside of the control room.

2. The NRC issued UFSAR SER, Supplement 7, in December 1984 (Attachment 2), which approved certain manual operator actions (provided in Attachment 1) to mitigate the effects of fire-induced spurious actuations due to a fire in the control room (Section III.G.3) and due to fires outside of the control room (Section III.G.2).

3. A November 13, 1992, letter (Attachment 3) from the NRC to the licensee, provided the summary of a November 1992, meeting to discuss the fire protection program at Palo Verde. This letter provided the licensee's slides presented at the meeting. The following slides deal with manual actions.

   - Appendix R Reconstitution Task "F" - This slide stated that Calculation 13-MC-FP-316, "10 CFR 50 Appendix R Manual Action Feasibility," assessed the feasibility of performing manual actions for fire in each fire analysis area of the plant. Although this calculation was not presented at the meeting, it does show manual actions used by the licensee for fires in both Section III.G2 and III.G.3 areas.

   - Appendix R Reconstitution Results, Revision to Operator Actions - This slide stated that operator actions which changed for non-alternative shutdown areas were feasible.

   - Appendix R Reconstitution Results, New Deviations - This slide listed one additional manual action (isolation of main steam) required in the control room prior to evacuation due to a control room fire.

4. An April 29, 1993, letter (Attachment 4) from the licensee to the NRC forwarded for NRC review and approval, new and revised deviation requests for the licensee's commitments with 10 CFR Part 50, Appendix R. The only manual action deviation requested was for a III.G.3 area and was the isolation of main steam prior to control room evacuation.

5. A July 27, 1993, letter (Attachment 5) from the NRC to the licensee, provided the summary of a July 20, 1993, meeting to discuss the Appendix Reevaluation Effort. The following was presented at the meeting.

   - The letter described some interim measures to be taken that included manual actions. However, the long-term corrective actions did not include any manual actions.

   - The letter also reiterated the deviation request for one additional manual action in the control room.

6. A September 2, 1994, letter (Attachment 6) from the NRC to the licensee provided the summary of a July 27, 1994, meeting to discuss fire protection issues.

   • The cover letter from the NRC stated that "APS, by letter of April 29, 1993, had submitted requests for deviations from commitments associated with Part 50, Appendix R. The deviations clarify, or add detail to, circuits and separation schemes, discuss the addition of the Train E charging pump to the analysis. The staff had briefly reviewed these deviations prior to the meeting, and following the licensee"s presentation of their fire protection change process, the staff stated that these changes are appropriate to be included in the licensee's change process and do not need prior staff review and approval. Accordingly, the deviation letter of April 29, 1993, is considered withdrawn, completion staff action on TAC Nos. M86935, M86936, and M86937."

   • The letter advised the licensee that the requested deviations from 10 CFR Part 50, Appendix R requirements did not have to be submitted to the NRC for approval. The deviations, including the one manual action for isolating main steam prior to control room evacuation, could be justified using the 10 CFR 50.59 process.

   One slide stated that engineering analysis supports eliminating need for approximately 80-85% of Thermo-Lag for Appendix R compliance.

   • Current analysis s\credits Thermo-Lag which was conservatively installed on circuits to minimize manual actions.

   • Manual actions have been determined to be feasible and are in accordance with Appendix R.

   • 50.59 evaluation will be performed and documents updated (i.e., UFSAR, Safe Shutdown Calculation, etc.)

   However, no details were given for what manual actions were described.

7. A December 22, 1994, letter (Attachment 7) from the licensee to the NRC provided the licensee's response to the followup to the NRC request for additional information regarding Generic Letter 92-08, issued pursuant to 10 CFR 50.54(f) on December 21, 1993. The licensee's response to Item III.B.2 states that:

   • "PVNGS has reduced the total square footage of Thermo-Lag fire barriers required for compliance to fire protection commitments by approximately 80% by crediting operator actions. The PVNGS 10 CFR 50 Appendix R III.G/III.L Compliance Assessment Calculation has been revised to credit operator actions. The revised analysis shows that the listed operator actions meet the requirements of Appendix R and in these cases, the fire rated Thermo-Lag barriers are no longer required to provide the fire-rated barrier separation requirement. Attachment E delineates those configuration which have been eliminated due to engineering analysis and manual actions. This reduction has eliminated the requirement for all 3-hour fire rated Thermo-Lag configurations."

   • Attachment E, "PVNGS Thermo-Lag Configuration Resolution," clearly shows

that manual actions were proposed for fire outside of the control room.

- Attachment E does provide details of some manual actions.

8. A March 27, 1997, letter (Attachment 8) from the NRC to the licensee provided the summary of a February 19, 1997, meeting to discuss Thermo-Lag issues

   - There was ons slide that mentioned manual actions. That slide was entitled "Appendix R Reanalysis Results," which showed a pie chart that had manual operator actions representing 78% of the pie chart.

9. A June 11, 1998, letter (Attachment 9) from the NRC to the licensee closed out the licensee's Thermo-Lag issues.

Summary

The licensee was granted the use of specific manual operator actions in lieu of physical protection requirements of 10 CFR Part 50, Appendix R, Section III.G.2 in 1984.

In 1994, the NRC staff concluded that the manual operator action to isolate main steam prior to evacuating the control room due to a control room fire was appropriate to be included in the licensee's change process and did not need prior staff review and approval.

Several meetings were held between the NRC and the licensee, during which the licensee provided information that manual operator actions were to be used in lieu of the physical protection provided by Thermo-Lag barriers. [redacted] 5