

*Shawmader  
ma  
Milhoan*

*1/11/83  
~~205 305~~  
EW 359*

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING APPEAL BOARD

In the Matter of )  
UNION ELECTRIC COMPANY ) Docket No. STN 50-483 OL  
(Callaway Plant, Unit 1) )

---

NRC STAFF RESPONSE TO APPEAL BOARD  
MEMORANDUM AND ORDER OF OCTOBER 20, 1983

---

27219

Robert G. Perlis  
Counsel for NRC Staff

November 4, 1983

E406070142 E40424  
PDR FOIA  
GARDE84-187 PDR

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING APPEAL BOARD

In the Matter of )  
UNION ELECTRIC COMPANY ) Docket No. STN 50-483 OL  
(Callaway Plant, Unit 1) )

NRC STAFF RESPONSE TO APPEAL BOARD  
MEMORANDUM AND ORDER OF OCTOBER 20, 1983

I. INTRODUCTION

On October 20, 1983, the Appeal Board issued a Memorandum and Order requesting additional information from the Applicant and Staff with respect to whether revised floor response spectra identified in an Integrated Design Inspection Program Report (IDIP) prepared by the NRC Office of Inspection and Enforcement have any safety implications for the embedded plates at the site. This Memorandum and Order was issued in connection with Joint Intervenors September 23, 1983 Petition for Reconsideration of ALAB-740, 18 NRC \_\_\_ (September 14, 1983). In ALAB-740, the Appeal Board affirmed the Licensing Board's Partial Initial Decision (LBP-82-109, December 13, 1982) addressing quality assurance/construction defects issues. Joint Intervenors' Petition is more properly characterized as a Petition to Reopen the Record; Joint Intervenors assert that the IDIP warrants re-opening of the record with respect to three issues.<sup>1/</sup> The Staff and

---

<sup>1/</sup> Joint Intervenors claim that the record should be reopened for the following issues assertedly raised in the IDIP: the significance of the IDIP as a whole with respect to the general quality assurance issue; the IDIP's (alleged) support for Joint Intervenors' subcontention regarding the safety of embedded plates at Callaway; and the IDIP's relevance to Joint Intervenors' subcontention challenging SA-312 piping used at Callaway.

Applicant responded to the Petition on October 12, 1983.

The Staff herein responds to the October 20, 1983 Memorandum and Order of this Appeal Board.

## II. DISCUSSION

Observation 4-1 of the IDIP noted that revised floor response spectra had been calculated for the auxiliary building at Callaway but had not yet been accounted for in the design.<sup>2/</sup> Joint Intervenors cited this Observation for the proposition that "the loads imposed by the floors of the auxiliary building, which in some cases are supported by embedded plates installed before the discovery of defects, were calculated incorrectly during the original design of the plant such that the as-built loads 'exceeded' the original spectra that had been used in design, by significant amounts in some cases.'" Petition at 2. In its Memorandum and Order of October 20, 1983, the Appeal Board requested additional information relative to Observation 4-1's impact on the safety of the embedded plates at the site.

Before addressing the safety of the embedded plates, a few words are in order concerning Observation 4-1. It must be noted that Joint Intervenors have mischaracterized the Observation; the Staff did not in

---

<sup>2/</sup> Observation 4-1 is printed in full in the attached Affidavit of Dennis P. Allison at ¶ 2.

any way suggest that the original spectra were calculated incorrectly. Allison Affidavit, ¶ 11. Rather, the Observation noted that at the time of the NRC inspection that resulted in the IDIP, the effects of the revised spectra had not yet been accounted for in the design and that, although no adverse effect on the final design was expected, the delay in resolving the matter was flagged for Applicant's consideration. IDIP at 4-9 and 4-10.<sup>3/</sup>

The specific matter addressed in Observation 4-1 was the delay in resolving the effect of the revised floor response spectra on various aspects of the design. The revised spectra themselves were developed by Bechtel (architect/engineer at Callaway) from a revised building analysis performed for the whole power block (which includes the auxiliary building) to reflect as-built conditions at the site. Allison Affidavit, ¶ 5. At the time of the NRC inspection, the power block structures themselves had already been reviewed by Bechtel personnel and had been found adequate with respect to the revised analysis. Allison Affidavit, ¶ 6.

In addition to determining the adequacy of the structures, Bechtel used the results of the revised building analysis to develop revised floor response spectra which would pertain to the design and seismic qualification of Category I components, structures and systems, including

---

<sup>3/</sup> The IDIP identified "findings," "unresolved items" and "observations." The IDIP indicated that licensees were required to resolve negative findings and unresolved items and that the NRC would evaluate such resolutions. Observations, on the other hand, represented cases where it was believed appropriate to call Applicant's attention to a matter; no further NRC action was called for. IDIP at 1-1 and 1-2.

any embedded plates associated with such components, structures and systems. It was the potential effects of these revised floor response spectra that had not yet been evaluated at the time of the NRC inspection. Allison Affidavit, ¶ 7.

The Staff has been informed that since the NRC inspection, Bechtel has initiated a review to determine the effects on design of the revised floor response spectra. The review is approximately half finished; no design deficiencies have yet been uncovered. The review is complete as it relates to all of the manually welded embeds; all the embeds were found adequate with respect to the revised analysis. Allison Affidavit, ¶¶ 8-9.

The Staff has not yet had an opportunity to review the results of Bechtel's revised analysis program. The Staff does believe that the program as described should assure adequate resolution of the matter. The Staff will review the results of Bechtel's program upon its completion. Allison Affidavit, ¶ 10.

When viewed in its proper context, it is clear that Observation 4-1 does not warrant a reopening of the record.<sup>4/</sup> The Observation itself does not implicate the safety of the embedded plates at the site; Bechtel's review indicates that the revised spectra will not have any adverse effect upon the plates. Nor does the Observation reflect a pervasive breakdown in the quality assurance program at Callaway. The Observation indicates

---

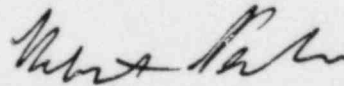
<sup>4/</sup> The standards for reopening the record were set out in "NRC Staff Response to Intervenor's Petition for Reconsideration", at 2-5.

that Bechtel calculated revised spectra to reflect as-built conditions, was aware of the potential safety implications of the revised spectra, and was involved in determining whether the spectra did in effect necessitate changes in the design. The only question raised in the Observation concerned the amount of time taken to complete the analysis. This question simply does not present new information relative to the quality assurance program which could lead to a different result in the proceeding. See Pacific Gas & Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-598, 11 NRC 876, 879 (1978); Kansas Gas and Electric Company (Wolf Creek Station, Unit 1), ALAB-462, 7 NRC 320, 338 (1978).

III. CONCLUSION

For the reasons stated herein, the Staff submits that the revised floor spectra described in Observation 4-1 of the IDIP do not pose a threat to the safety of the embedded plates and do not warrant reopening of the record.

Respectfully submitted,



Robert G. Perlis  
Counsel for NRC Staff

Dated at Bethesda, Maryland  
this 4th day of November, 1983