

TELEDYNE  
ENGINEERING SERVICES

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October 15, 1982  
5511-174

50-295

Mr. H. R. Denton, Director  
Office of Nuclear Reactor Regulation  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

UNCONTROLLED COPY

Dear Mr. Denton

Your letter of July 1, 1982 transmitted the Brookhaven National Laboratory (BNL) Final Report concerning their analysis of the DCNPP annulus structure for our consideration, identified seven points of specific concern and requested our views regarding the validity of the BNL results and of their generic implications.

This letter is a preliminary response to your letter. It should be stressed at the outset that the TES review of the BNL report and of the latest URS/Blume analysis of this region is not as yet complete and no final conclusions will or should be made from this letter. Further, it should be understood that the URS/Blume analysis we are considering is that which PG&E refers to as the 1981/1982 URS/Blume model.

With respect to the seven items specifically addressed in your letter, we have also considered the contents of the PG&E letter to us dated July 8, 1982 presenting their preliminary review on those items. Based upon our review to date, we concur with PG&E that there is no significant disagreement with respect to the first three of your seven items which involved the consideration of masses and joint conditions. The fourth item is concerned with spectrum smoothing where the technique applied by PG&E is consistent with that approved for PG&E use by the NRC. The fifth and sixth items relate to piping dimensions. We agree with PG&E that the dimensions used by BNL probably do not represent the actual configuration, but this is still under review. Your seventh item is the most important, involving BNL piping support forces much larger than those reported in the URS/Blume analysis being used by BNL, and this is also still under review.

Based upon our review of the URS/Blume 1981/1982 analysis, TES has recently opened EOI files 3006 and 3007 addressing two concerns which we have identified. These are related to the method used by URS/Blume in consolidating radial beams in their frame and the treatment of the tangential beam when these are support points for attached components. These concerns are reinforced by the TES review of the BNL evaluation, although the latter was not an essential step in our identification of the concerns. Our letter 5511-170, of which NRC has a copy, further addressed the basis and significance of these concerns, as well as indicating that the concerns are important for only certain regions of the annulus structure. That letter was written to communicate to the Diablo Canyon Project (DCP) more detailed information than was transmitted by the Open Item Report.

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By: H. Schmalin

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TES continues to review this entire issue as it applies to DCNPP and as it applies to addressing the concerns of your letter. We presently consider it possible that the present 1981/1982 URS/Blume analysis may not provide adequate results for evaluation of the annulus structure or of the attached components. Similarly, we presently consider it possible that the BNL Model B may provide a valid solution for the annulus structure including floor response spectra. However, the BNL report may not provide for a proper evaluation of the piping itself.

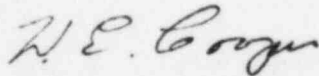
Your letter also asks that we respond with respect to possible generic implications of the differences between URS/Blume and BNL results. There are several aspects which could be considered with respect to the term generic:

1. With respect to significance to other DCNPP structures, we consider it to be highly improbable that any differences indicate a generic concern. The configuration of the annulus region is unique and there are other structures, such as the control room, where URS/Blume considered the local effects properly. Moreover, all structures are under review by DCP and are subject to verification by the IDVP.
2. With respect to the general methods available for use in seismic analysis of structures, we believe that either the noncondensed models (such as those used by BNL) or condensed models properly applied are capable of producing adequate results.
3. With respect to other containment structures analyzed by URS/Blume or by any other organization using similarly consolidated models, we have no basis for judgement within the IDVP as to the potential for a generic concern.

We will continue to report to you on this matter.

Very truly yours,

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William E. Cooper  
Project Manager - 5511

WEC:cjr

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 Project No. 5511 Office of Nuclear Reactor Regulation  
 Date October 15, 1982 U. S. Nuclear Regulatory Commission  
 Client PO 5-2-82 7920 Norfolk Ave.  
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| QTY | TYPE | ITEM IDENT NO. | REV | DESCRIPTION - Title and Number of Sheets/Pages | REC'D |
|-----|------|----------------|-----|--|-------|
| 1   | Ltr  | 5511-170       |     | URS/Blume Review, BNL Review                   |       |
| ✓ 1 | Ltr  | 5511-174       |     | BNL Annulus                                    |       |
| 1   | Ltr  | 5511-175       |     | Region 5 Comments on Phase II                  |       |
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ACKNOWLEDGEMENT OF RECEIPT BY H. Schierling TITLE PM DATE 10/18/82

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