

1/3/84

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)	
)	Docket Nos. 50-329-OM
CONSUMERS POWER COMPANY)	50-330-OM
)	50-329-OL
(Midland Plant, Units 1)	50-330-OL
and 2))	

APPLICANT'S REPLY TO
NRC STAFF FINDINGS ON
REMEDIAL SOILS ISSUES

This is Applicant's Reply to "NRC Staff Responsive Findings to Applicant's Proposed Findings of Fact and Conclusions of Law on Remedial Soils Issues," which was filed on November 15, 1983. The Staff's responsive findings do not address the diesel generator building. Neither does Applicant's Reply.

In the interest of brevity, Applicant generally has replied to Staff comments only where we have something to add or correct. We have tried not to reiterate statements contained in our August 5, 1983 findings. Accordingly, the absence of any reply to a specific Staff comment does not necessarily signify assent, but only that Applicant believes the issue is fairly joined on the basis of its August 5, 1983 findings and the NRC Staff's November 15 responsive findings. Paragraph references in this Reply are the same as those in Applicant's August 5, 1983 findings and the NRC Staff's November 15 responsive findings.

INTRODUCTION

II. Applicant agrees that footnote i should be modified as the Staff suggests.

SEISMOLOGY AND SEISMIC MODELS

4. Applicant agrees with the NRC Staff's comment.

9. Applicant objects to the NRC Staff's reference to SER pp.2-41 to 2-44. While the SER was placed into evidence as Staff Exhibit 14 (See Tr. 8715), this specific portion was never sponsored by a Staff witness (indeed, the SER was published after the November, 1981 seismology hearings.) Accordingly, this portion of the SER may not be relied upon by the Licensing Board as an evidentiary basis for its decision. See Southern California Edison Company (San Onofre Nuclear Generating Station, Units 2 and 3), ALAB-717, 17 NRC 346, 365-368 (1983); Tr. 8713-8714; Applicant's Proposed Findings of Fact and Conclusions of Law on Remedial Soils Issues, dated August 5, 1983, at r. 36 n.84 and Appendix C.

10. Applicant agrees with the NRC Staff that seismicity involves deterministic considerations of seismic history as well as probabalistic considerations. The NRC Staff is correct that the October 14, 1980 Tedesco letter does not characterize the deterministic approach mandated by Appendix A as a "cookbook" approach. That characterization appears in Applicant's Brief on Compatability of Site Specific

Response Spectra Approach with 10 CFR Part 100 Appendix A, dated September 29, 1981, (hereinafter, "Applicant's Brief") at page 8. This citation should be added to footnote 21.

11. Applicant agrees with the NRC Staff's correction to footnote 23. Applicant initially found it difficult to understand the second paragraph of the NRC Staff's comments (except for the last sentence). After discussing the paragraph with Staff counsel and Dr. Kimball we understand the Staff's point to be that the Tedesco letter does not use intensity VII-VIII and magnitude 5.3 interchangeably as perhaps our findings suggest. Magnitude and intensity are treated separately in the Tedesco letter. Accordingly, Applicant proposes that the words "or magnitude 5.3" be deleted from the 8th line of page 19 of its August 5, 1983 proposed findings. Moreover, Applicant agrees with the Staff that the issue is moot if the Licensing Board approves the SSRS.

12. The NRC Staff is correct that Holt Ex. 3 does not support the text of this proposed finding. Instead, the citation in footnote 27 should be to the NRC Staff Brief in Support of the Use of a Site Specific Response Spectrum to Comply with the Requirements of 10 CFR Part 100, Appendix A (hereinafter "NRC Staff Brief") at pp. 10-12. The citation to Dr. Holt's prepared testimony in footnote 27 should remain.

15. If further support for the last sentence of

Applicant's finding is necessary, it can be found in Applicant's brief at pp. 9-11, and in the pages of Dr. Holt's prepared testimony cited in Applicant's brief.

20. Applicant agrees with these comments by the NRC Staff.

26. Applicant agrees with this comment. We did not intend to imply that Dr. Kimball had accepted the Michigan Basin as a tectonic province (or seismotectonic province).

29. Applicant agrees with this clarification.

31. Applicant agrees that the question concerning appropriate spectral levels for statistical combination of response spectra is moot.

58. As Dr. Holt testified concerning use of the Central Stable Region as a tectonic province, "I don't think it's conservative, I think it is wrong." Use of the Central Stable Region is not in conformance with 10 CFR Part 100, Appendix A. Holt, Tr. 4600-4601.

AUXILIARY BUILDING

218. Applicant agrees with the NRC Staff comment in the last paragraph (the middle paragraph on page 17). We did confuse the proposed use of caissons at the auxiliary building with the proposed use of pile and corbels at the SWPS.

219. Applicant agrees with the NRC Staff's clarification. However, we add that there is no question that the properties of the foundation soil have been properly

identified in the record and that this foundation soil, including both glacial fill and lacustrine clay, is adequate for purposes of the remedial measures. This comment is also applicable to paragraphs 220, 227, and 233.

With respect to the Staff's second comment, Applicant is considering a change similar to that indicated by the Staff. However, we have not yet reached a final decision on the matter. Any proposed change would be submitted to the NRC Staff for approval pursuant to the Work Authorization Procedure.

233. Applicant agrees with the Staff's correction.

SERVICE WATER PUMP STRUCTURE

258. Applicant is considering substituting a plate load test (which would be performed at the bottom of the pier excavation prior to the time the pier is poured), for the pier load test described in the Staff's comment. The reason this change is being considered is the poor experience with the auxiliary building pier load test alluded to by the Staff in their comments on paragraphs 228-230. Any proposed change will of course be submitted to the NRC Staff for approval pursuant to the Work Authorization Procedure.

BORATED WATER STORAGE TANKS

277. The fact that 1.1 inches of settlement

occurred after constructing the BWST-1 foundation but prior to filling BWST-1 with water does not, by itself, prove that the fill in this area was inadequately compacted and that this was the primary cause of the differential settlement problem. One needs to know how much adequately compacted fill would have settled over an equivalent time period. In fact, the NRC Staff asked this question of Dr. Hendron, who calculated that 35 feet of fill, compacted to 95 percent modified dry density would settle approximately 1.7 inches (\pm 50%) under its own weight. Hendron, Tr. 7328-7331. However, Dr. Hendron also pointed out that this value of 1.7 inches was for long term secondary compression and may or may not be directly comparable to the 1.1 inch measured value, depending on the timing of the placement of fill and the construction of the BWST foundations. Mr. Kane on the other hand estimated that the fill, if it had been compacted to 95% modified dry density, would have settled about 1/4 inch, as an upper bound, for the period from the construction of the BWST ring to the time the tank was filled with water. (This corresponds to the time period during which 1.1 inches of settlement was actually measured at BWST-1). Mr. Kane further estimated that adequately compacted fill would have settled at most an additional 1/2" during the earlier period from the time 35 feet of fill had been placed until the time the BWST ring was placed. Mr. Kane's estimates were based on his engineering judgment and experience, rather than any calculation. See Kane, Tr. 7494-7517, 7520-7526. In any

event, the questions of whether the soil beneath BWST-1 was initially inadequately compacted and whether this was the primary cause of the differential settlement at BWST-1 are no longer material. The remedial measures for the BWSTs are based on the engineering properties of the soils as they exist now, after the tanks have been filled with water. Hendron prepared testimony following Tr. 7186, Tr. 7334.

279. Applicant disagrees with the Staff's attempt to explain away the testimony of its own witnesses, Dr. Singh and Dr. Landsman. Dr. Singh was not responding to a "different question". See Stamiris Ex. 33, Question 1 and Tr. 7477-82. Applicant's proposed finding accurately characterizes his testimony. As for Dr. Landsman's opinion concerning the unsymmetrical BWST foundation being a design deficiency, the Staff concedes that Applicant has correctly summarized Dr. Landsman's testimony but argues that his testimony is not probative. If the Staff believed Dr. Landsman's opinion on the subject of BWST design deficiencies was not probative of any matter in controversy before the Board, why did the Staff fight to have it admitted? See Tr. 16581-16591.^{1/}

Applicant also objects to the Staff's request that the last sentence of Applicant's finding 279 be struck.

^{1/} Dr. Landsman's statement was offered as his personal opinion, not the Staff's, but the Staff urged the Board to receive it into evidence. See also 10 CFR § 2.743(c). Applicant does not agree with the NRC Staff that only statements directly addressing the "primary cause" of the BWST settlement are properly included in Applicant's findings.

Contrary to the Staff's assertion, Applicant's characterization of Dr. Landsman's testimony is accurate. Moreover, the relevance of this sentence is clear, particularly if the Licensing Board issues one partial initial decision on management attitude issues as well as remedial soils issues, as it has stated it presently intends to do. Finally, the Rules of Practice do not authorize the relief which the Staff appears to be requesting.

290. Applicant agrees with the Staff's proposed addition.

299. The last sentence of this comment addresses a moot issue. See paragraph 277 of this Reply.

DIESEL FUEL OIL TANKS

309. Applicant agrees with this correction.

UNDERGROUND PIPING

318. Applicant agrees with the NRC Staff's corrections.

337. Applicant agrees with this comment.

340. Applicant agrees with this comment.

341. Applicant agrees with this comment.

342. Applicant agrees that the first sentence of its proposed finding is not a very good definition of "buckling." We have not found a good definition of "buckling" in the record, but we agree with the Staff that the first sentence in this finding can be deleted.

- 343. Applicant agrees with this comment.
 - 349. Applicant agrees with this comment.
 - 357. Applicant agrees with this suggested change.
 - 362. Applicant agrees with this correction.
 - 363. Applicant agrees with this comment.
 - 370. Applicant agrees with this correction.
 - 373. Applicant agrees with this correction.
 - 374. Applicant agrees with this comment.
 - 381. Applicant agrees with this comment.
 - 385. Applicant agrees with this correction.
 - 388. Applicant agrees with the Staff's modification to the last sentence of this paragraph.
 - 390. Applicant agrees with this addition.
 - 391. Applicant agrees with this correction.
 - 394. Applicant agrees with the Staff's correction.
- We should have cited Weeks, Tr. 9395 (who was relying on the NRC Resident Inspector, Ron Cook) for the proposition that proper grounding practice is now in effect at the site. We agree with the Staff's proposed addition concerning the examination of the BWST line.
- 395. Applicant agrees with this comment.

ELECTRICAL DUCT BANKS AND CONDUIT

- 419. Applicant agrees with this correction.

LIQUEFACTION AND DEWATERING

425. Applicant agrees with the Staff's comments concerning footnote 721. The two new, additional borings were not near the diesel fuel oil tanks. Tr. 9765-9766. The liquefaction analysis referred to in footnote 721 was performed prior to the time the two additional borings became available.

427. Applicant agrees with the Staff's proposed modification.

428. Applicant agrees with this correction.

432. Applicant agrees with this correction.

SLOPE STABILITY OF BAFFLE AND
PERIMETER DIKES

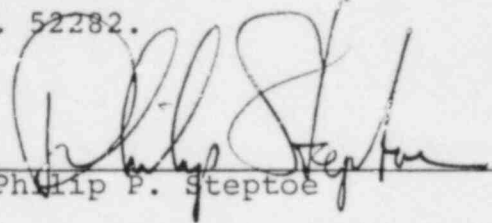
457-486. Applicant objects to all references to the SER made in this section, for the same reason stated in paragraph 9, above. Southern California Edison Company (San Onofre Nuclear Generating Station, Units 2 and 3), ALAB-717, 17 NRC 346, 365-368 (1983); Tr. 8713-8714.

469. Applicant agrees with the typographical correction suggested by the Staff.

CONCLUSIONS OF LAW

492. Applicant intends to discuss the extent to which LBP-82-35 should remain in effect in its proposed supplemental QA findings.

495. The Commission has recently deleted the exception requirement and modified appellate briefing requirements. The Licensing Board's partial initial decision should direct the parties to the new rule, which was published on November 17, 1983 at 48 Fed. Reg. 52282.


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Dated: January 3, 1984

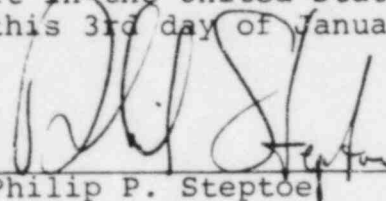
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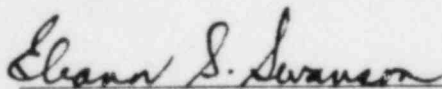
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CERTIFICATE OF SERVICE

I, Philip P. Steptoe, one of the attorneys for Consumers Power Company, hereby certify that copies of "Applicant's Reply to NRC Staff Findings on Remedial Soils Issues" and "Applicant's Reply to Ms. Stamiris' 'Intervenor Proposed Findings of Fact and Conclusions of Law on Remedial Soils Issues'" were served upon all persons shown in the attached service list by deposit in the United States mail, first class, postage prepaid, this 3rd day of January, 1984.


Philip P. Steptoe

SUBSCRIBED AND SWORN before
me this 3rd day of January,
1984.


Notary Public

My Commission Expires January 11, 1987

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