Central File

Southern California Edison Company

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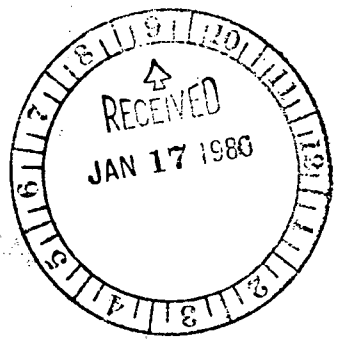
January 14, 1980



U. S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
Region V
Suite 202, Walnut Creek Plaza
1990 North California Boulevard
Walnut Creek, California 94596

Attention: Mr. R. H. Engelken, Director

Docket No. 50-206
San Onofre Unit 1

In response to IE Bulletin No. 79-14, "Seismic Analyses for As-Built Safety-Related Piping Systems," our letter dated December 28, 1979 indicated that the required verification/inspection of accessible safety-related piping systems has been completed, except for a random selection of insulated support details, as described in our August 10, 1979 and September 10, 1979 letters. Based on the results of the verification/inspection six nonconformances were identified invalidating the seismic analysis for the piping systems. In each case, your office was promptly notified of the nonconformances in accordance with the bulletin and our Technical Specifications with followup letters describing the details surrounding the nonconformances and the action taken to correct the nonconformances.

Enclosure 1 to this letter provides a list of piping systems verified/inspected where nonconformances were identified and a summary description of the actions taken to correct the nonconformances. Enclosure 2 to this letter identifies those piping systems where insulation will be removed for certain support details. The schedule for removal of the insulation has not been established; however, the inspection will be performed consistent with the inspections of inaccessible safety-related piping systems (i.e., prior to or during the next refueling outage currently scheduled in April, 1980) as described in our September 10, 1979 letter.

In accordance with a request made by Mr. L. Miller of your staff, we have also enclosed the pertinent portions of the "Balance of Plant Seismic Reevaluation Program Contract" outlining the methods used to prepare the certified, as-built drawings of safety-related piping systems. Our August 10, 1979 letter indicated that we would use these drawings to the

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extent possible rather than conducting a field verification/inspection to verify that the seismic analysis input information conforms to the actual configuration of safety-related piping systems. However, a field verification inspection was conducted for all of the accessible piping systems.

Our August 10, 1979 and September 10, 1979 letters indicated that we were continuing our record search to locate additional seismic analysis design documents. Based on the record search, no additional documents have been located except those identified in our September 10, 1979 letter. In addition, it has been determined that the seismic analysis design documents for the Feedwater System (Line Nos. 325-18"-EG, 325-10"-EG, 326-10"-EG, 329-10"-EG, 391-10"-EG, 392-10"-EG, 393-10"-EG, 321-12"-EG, 322-12"-EG) delineated in Table 3 of our September 10, 1979 letter are not applicable to the as-built piping configuration and have been deleted from that table. These documents were only prepared in support of preliminary design/engineering to optimize the piping system configuration. Those safety-related piping systems for which seismic analysis design documents have not been retrieved will be evaluated as part of the Seismic Reevaluation Program at San Onofre Unit 1, which has now been integrated into the Systematic Evaluation Program.

If you have any questions, or desire further information concerning this matter, please contact me.

Very truly yours,

H. L. Ottoson
Manager, Nuclear Generation

Enclosures
cc: Director, Office of Inspection and Enforcement

ENCLOSURE 1

Piping System	Corrective Action
Radwaste Disposal (Line 7076-2"-HPZ)	Letters dated November 9, 1979 and November 26, 1979 to NRC described missing support and corrective action to install support.
Diesel Fuel Storage and Supply (Lines 1517-2"-N-3ANA and 1518-2"-3ANA)	Letters dated November 19, 1979 and November 29, 1979 to NRC described missing U-bolts and corrective action to install U-bolts.
Chemical Volume and Control (Line 2014-3"-151R)	Letters dated November 27, 1979 and December 7, 1979 to NRC described missing valve operator support and an incorrectly welded valve operator support and corrective action to properly install supports.
Auxiliary Coolant (Line 3056-14"-152N)	Letters dated December 3, 1979 and December 17, 1979 to NRC described missing supports and corrective action to install supports.
Chemical Volume and Control (Line 3006-2"-EG) and Miscellaneous Water (Line 743-8"-KN)	Letter dated January 10, 1980 provided prompt notification to NRC of valve support configuration not as modeled (Line 3006-2"-EG) and a missing "Y-Stop" support (Line 743-8"-KN) and described corrective action to install new support configuration on Line 3006-2"-EG and a "Y-Stop" on Line 743-8"-KN. Two-week followup report to be submitted by January 24, 1980.

ENCLOSURE 2

Piping System	Type of Support
Feedwater (Lines 341-2"-EG, 342-2"-EG, 343-2"-EG, 347-3"-EGX, and 347-4"-EGX)	Hangers
Diesel Generator Cooling Water (Lines 1560-10"-A-3ACB and 1561-10"-A-3ACB)	Hanger, directional anchor and Anchor
Diesel Generator Lube Oil Vent (Line 1650-3"-A-3ACB)	Anchor
Diesel Generator Exhaust (Line-1544-42"-F-3ACB)	Shock Anestors

APPENDIX A

BECHTEL

SCOPE OF WORK - PHASE 1B

TO THE

BALANCE OF PLANT

SEISMIC REEVALUATION PROGRAM CONTRACT

SAN ONOFRE NUCLEAR GENERATING STATION - UNIT 1

September 6, 1977

and actual issue dates for the aforementioned drawings and drawing revisions.

Westinghouse approval of the scheduled issue dates of drawings which are prepared for their use is required.

The drawing log shall be updated and reissued by Bechtel monthly during Phase IB. The format for this drawing log shall be in accordance with Table 3-5.

3.1.1.7 Calculation List. The list shall state the subject and identification number of all calculations which are prepared in conjunction with Phase IB work.

The primary purpose of the calculation list is to establish a means by which convenient and ready retrieval of program work will be possible subsequent to program completion.

The list shall be maintained throughout Phase IB and shall be provided to Edison in January, 1978 and at the conclusion of Phase IB. The suggested format for this calculation list is shown in Table 3-6.

3.1.1.8 Detailed schedules. Activity schedules shall be utilized for the planning and monitoring of the Phase IB work described in Section 3.1. | 3

3.1.1.9 Progress and Cost Control Reports. The reports shall be prepared and submitted in accordance with the provisions of Appendix 3A.

3.1.2 Perform Field Measurements and Drawing Preparation as follows:

3.1.2.1 Perform field measurements and field surveys, as required, to verify the location and configuration of equipment, instrumentation, piping, piping supports, and structures identified as Phase I items on the list developed in accordance with Section 3.1.1.1. Field verification shall be limited to needs associated with work described in Section 3.1. Work performed for Westinghouse (for purposes other than that described in Sections 3.1.2.2, 3.1.2.3; and 3.1.2.4) shall be specifically requested by Westinghouse in letter correspondence. | 2

3.1.2.2 Complete the preparation of all isometric piping drawings (and/or drawing revisions), as well as all associated piping support detail drawings (and/or drawing revisions), required by both Bechtel and Westinghouse (for evaluation purposes in accordance with Section 3.1.5 and 3.1.12) showing the field verified location and configuration of all Phase I piping and associated supports identified on the list developed in accordance with Section 3.1.1.1. | 2

All as-built isometric piping drawings shall be field verified and shall show:

a) Identification [through the use of line numbers and material specification consistant with the SONGS 1 Line Designation List (LDL), and Piping Design and Material Specification (PDMS) discussed in Section 3.1.2.5] of all required piping analysis information, including: | 2

- o Pipe size, schedule, and material
- o insulation material, thickness, and density.
- o line pressures and temperatures.

b) Location and identification (e.g. by a tag number which provides for a specific cross-reference to appropriate support detail drawings and/or photographs) of all piping supports. | 2

c) Identification and location of all valves and pipe fittings.

d) A set of global coordinates and direction angles (with respect to plant north) for each line. (Class 1 lines, as well as Class 2 and 3 lines within Westinghouse responsibility, only).

e) Safety classification of the piping lines including the locations in which class breaks occur (e.g. Class 1/Class 2 breaks). | 2

f) Analysis boundary identification which documents the locations of piping interfaces between Bechtel and Westinghouse. The interfaces shall be

defined in accordance with the provisions of Section 3.1.38. The interface between Class 1 and Class 2 and 3 piping will be defined such that the effect of Class 2 and 3 piping on Class 1 piping systems will be adequately modelled. In general, Class 2 and 3 piping will be modelled in the analysis of Class 1 piping to an effective restraint or vibration boundary.

Piping support detail drawings shall be prepared for all piping supports for Class 1 lines, as well as for Class 2 and 3 lines which are three inches or greater in diameter. All as-built piping support drawings shall be field verified and shall show all information required for both the stress evaluation of the piping supports and the determination of piping support stiffnesses (as discussed in Sections 3.1.5 and 3.1.34). All certified as-built piping support detail drawings for Class 1 lines shall be provided to Edison on or before eight weeks subsequent to the next plant outage. 2

The approximate number of completed approved isometric piping drawings and drawing revisions to be provided to Edison during Phase IB is 410 and 150, respectively.

The approximate number of completed approved piping support detail drawings and drawing revisions to be provided to Edison during Phase IB is 370 and 150, respectively. 2

3.1.2.3 Complete the preparation of all equipment support drawings and/or drawing revisions required by Westinghouse (for evaluation purposes in accordance with Sections 3.1.16 and 3.1.17) showing the field verified support configuration of all Phase I auxiliary equipment identified on the list developed in accordance with Section 3.1.1.1.

All as-built support drawings of the auxiliary equipment shall show:

a) Location, type, and actual dimensions of the supports.

b) Material (including material specification) of the supports.

The approximate number of completed approved auxiliary equipment support drawings and drawing revisions to be provided to Edison during Phase IB is 22. | 2

3.1.2.4 Complete the preparation of all drawing revisions to "as-built" SONGS 1 drawings not covered in Sections 3.1.2.2 and 3.1.2.3, including but not limited to P&ID drawings, which are necessary to reflect the verified configurations identified in accordance with Section 3.1.2.1 above. The preparation of drawings and/or drawing revisions in accordance with the provisions of Sections 3.1.2.2 and 3.1.2.3 shall have priority over the preparation of the drawing revisions discussed herein.

For budget purposes, the approximate number of completed drawing revisions to be provided to Edison during Phase IB is 32.

Note: All drawings and/or drawing revisions prepared in accordance with Sections 3.1.2.2, 3.1.2.3, and 3.1.2.4 (as well as all associated reference drawings, i.e. hangar drawings) must be formally issued by Edison and concurrently integrated into Edison's drawing control system prior to any use of the drawings during Phase IB (i.e., for modeling purposes in accordance with Sections 3.1.5 and 3.1.12). | 2

3.1.2.5 Confirm and/or correct all piping design information, as stated in Section 3.1.2.2(a) and documented in the Line Designation List (LDL) and the Piping Design and Material Specification (PDMS), required for the accurate piping stress analysis of all Phase I piping systems identified in the list which is maintained in accordance with Section 3.1.1.1.

Corrections of the LDL and PDMS documents shall include but not be limited to the verification and correlation of design pressures and temperatures within the two documents, the addition of information currently lacking (such as insulation material), and the replacement of ambiguous information with clearly defined parameters (i.e. material listed as "PVC" shall be replaced with ASTM Nos.).

The effected portions of the LDL and PDMS documents shall be updated and revised by Bechtel in accordance with Edison procedures within six months of the commencement of Phase IB.

3.1.3 Assist in the retrieval and assembling of supplemental data (excluding data acquired in accordance with Section 3.1.2.1) which Westinghouse requires, as identified in accordance in Section 3.1.1.4 or is specifically requested by Westinghouse in letter correspondence, to facilitate their qualification of Phase I equipment items within their scope of work. Bechtel's assistance shall be limited to a search of the Bechtel file system. Responses, including negative replies, to requests for data retrieval shall be by means of letter correspondence.

3.1.4 Identify and evaluate all potential, cost-effective applications of declassifying (in accordance with the criteria established in Section 3.1.1.2) equipment items and portions of systems identified in the list described in Section 3.1.1.1. The conclusions and specific recommendations of this evaluation shall be summarized and justified. The justification shall include, but not be limited to, the results of any required safety evaluations as well as the results of a specific cost-benefit comparison for any recommended physical specifications to the existing Unit 1 plant features.