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April 23, 1979

Director of Nuclear Reactor Regulation
Attention: D. L. Ziemann, Chief
Operating Reactors Branch #2
Division of Operating Reactors
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Gentlemen:

Subject: Docket No. 50-206
Systematic Evaluation Program
San Onofre Nuclear Generating Station
Unit 1

Your letters of February 8, 1979 forwarded completed topic assessments for two SEP topics. The letters requested that we examine the facts upon which the staff based its evaluation and respond either by confirming that the facts defining San Onofre Unit 1 are correct or by identifying any errors. The results of our examination of the facts defining San Onofre Unit 1 in each topic assessment are provided as an enclosure to this letter.

If you have any questions regarding the enclosed, please contact me.

Very truly yours,

J. G. Haynes

J. G. Haynes
Chief of Nuclear Engineering

Enclosure

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RESULTS OF SCE EXAMINATION OF FACTS DEFINING
SAN ONOFRE UNIT 1 IN NRC TOPIC ASSESSMENTS

II-2.C Atmospheric Transport and Diffusion Characteristics

Page 1, paragraph 2, indicates the EAB for San Onofre Unit 1 varies from 283 to 1005 meters. We have calculated that the EAB varies from 282 to 1046 meters from the Unit 1 containment boundary. This should be corrected.

Page 1, paragraph 2, ". . .(January 25, 1973 to January 25, 1976). . ." should be changed to . . .(January 25, 1973 to January 24, 1976). . ." In addition, a reference should be provided for the three year meteorological data base.

Page 2, paragraph 1, reference is made to the wake factor of 800 square meters. The basis for the determination of this value should be provided.

Page 2, paragraph 1, a reference should be provided for the onshore tracer program.

Page 2, paragraph 1, reference is made to the ". . .onsite tracer program. . ." Two tracer programs have been conducted at San Onofre: 1) an offshore program (NUS 1702) in support of the San Onofre Units 2 and 3 construction permit appeal proceedings, and 2) an onshore program (NUS 1927). In order to distinguish between the programs the terms "offshore" and "onshore" have been used in the past. It would be helpful if "onsite" as used by the staff was changed to "onshore", as appropriate, in the following places:

Page 2, line 12 and 15
Page 3, line 5
Appendix, page 2, line 7
Appendix, page 5, lines 11 and 15
Appendix, page 9, line 19.

Appendix, page 3, paragraph 1, ". . .eight towers. . ." should be changed to ". . .seven towers. . ." based on NUS 1927.

Appendix, page 3, paragraph 1, ". . .40-meter tower located 700 meters inland" should be changed to ". . .40 meter tower located 675 meters inland."

Appendix, page 4, paragraph 3, "Nearly 40 test runs were successful ranging over the unstable and neutral stability classes (A-D)." should be changed to "Forty-one test runs were successful ranging over the unstable and neutral stability classes (A-D) as defined by ΔT."

Appendix, Table 1, indicates the four X/Q values determined by the four models are for a distance of 285 meters in the northwest sector. This should be revised since only the X/Q's calculated using the draft Reg. Guide 1.XXX model may be based on 285 meters in the northwest sector.

Appendix, page 9, paragraph 1 states that the maximum X/Q value occurs in the northwest sector at 285 meters. Based on draft Reg. Guide 1.XXX the minimum distance assumed for the sector of interest is the minimum distance within that sector and one half the width of the direction sector on either side of the sector of interest. In the case of the northwest sector, half of the west northwest and half of the north northwest sectors would be included. The minimum EAB distance (282 meters) occurs in that half of the west northwest sector. Clarification should be provided as to why the minimum distance utilized for calculating the X/Q in the northwest sector is 285 meters.

Page 1, paragraph 2, indicates the LPZ for San Onofre Unit 1 is 2900 meters. In an earlier NRC document, the staff's Safety Evaluation dated April 1, 1977 in support of Amendment 25 to Provisional Operating License DPR-13 for San Onofre Unit 1, a value for the LPZ was given as 2898 meters and in the same document 2921 meters was used to determine accident X/Q's at the LPZ. In addition, we have utilized a value of 2916 meters in our calculations. Please confirm that the 2900 meter LPZ value was used in calculating accident X/Q's at the LPZ and whether or not this value will be used in offsite dose calculations in the design basis event evaluations.

Appendix B, page 4, paragraph 3, indicates successful tracer tests were conducted in stability classes A through D. Appendix, page 9, paragraph 2 also indicates that the use of a reduction factor of 10 appeared reasonable for Stability Class D. Therefore, since there is data available for Stability Class D which supports the use of a reduction factor of 10, this should be used in lieu of the draft Reg. Guide 1.XXX reduction factor of 2.

II-2.D Availability of Meteorological Data in the Control Room

Based on our review, the facts defining San Onofre Unit 1 in this topic assessment are correct.