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Docket No. 50-206

Mr. R. Dietch, Vice President Nuclear Engineering and Operations Southern California Edison Company 2244 Walnut Grove Avenue Rosemead, California 91770 NRC PDR Local PDR TERA OI&E (3) ACRS (16) NSIC, JBuchanan WRussell DCrutchfield HSmith SNowicki WHouston GCwalina JWetmore RDiggs JRoe

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Dear Mr. Dietch:

SUBJECT: SAN ONOFRE - SEP TOPICS II-2.A AND XV-16

The SEP review of Topac II-2.A, "Severe Weather Phenomena" has been completed. Enclosure 1 is the staff's safety evaluation (SE) for the San Onofre site. The review was done in conformance with Standard Review Plan 2.3.1 and covers extreme temperatures, lightning strikes, snow and ice loads and wind and tornado loadings. The wind and tornado loadings analysis was performed by the Texas Tech. University, Institute for Disaster Research. Enclosure 2 is the Texas Tech. report. Please inform us if your as-built facility differs from the licensing basis assumed in our assessment within 30 days of receipt of this letter.

You will note that the SE identifies a design basis tornado with a probability of 10⁻⁷ per year and is consistent with a Regulatory Guide 1.76 design basis tornado. The staff intends to evaluate the structural characteristics of specific structures, systems and components important to safety to determine their ability to withstand the severe weather loadings. The plant design parameters will then be compared to the probability of occurrence of the wind as a part of our structural evaluation. This comparison will be used to evaluate the necessity of design changes.

In addition, we have determined that enough information is not available to complete our review of Tppic XV-16, Radiological Consequences of Failure of Small Lines Carrying Primary Coolant Outside Containment. Enclosure 2 is a list of information needed to complete our evaluation of this topic. Please provide the information to us within 60 days of receipt of this letter.

		Sincer	ely,		
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UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D. C. 20555

DEC 1 5 1980

Docket No. 50-206 LS05-80-12-013

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Mr. R. Dietch, Vice President Nuclear Engineering and Operations Southern California Edison Company 2244 Walnut Grove Avenue Rosemead, California 91770

Dear Mr. Dietch:

SUBJECT: SAN ONOFRE - SEP TOPICS II-2.A AND XV-16

The SEP review of Topic II-2.A, "Severe Weather Phenomena" has been completed. Enclosure 1 is the staff's safety evaluation (SE) for the San Onofre site. The review was done in conformance with Standard Review Plan 2.3.1 and covers extreme temperatures, lightning strikes, snow and ice loads and wind and tornado loadings. The wind and tornado loadings analysis was performed by the Texas Tech. University, Institute for Disaster Research. Enclosure 2 is the Texas Tech. report. Please inform us if your as-built facility differs from the licensing basis assumed in our assessment within 30 days of receipt of this letter.

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In addition, we have determined that enough information is not available to complete our review of Topic XV-16, "Radiological Consequences of Failure of Small Lines Carrying Primary Coolant Outside Containment". Enclosure 3 is a list of information needed to complete our evaluation of this topic. Please provide the information to us within 60 days of receipt of this letter.

Sincerely,

in M. Cutles

Dennis M. Crutchfield Chief Operating Reactors Branch #5 Division of Licensing

Enclosures: As stated

cc w/enclosures: See next page

Mr. R. Dietch

CC

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California Department of Health ATTN: Chief, Environmental Radiation Control Unit Radiological Health Section 714 P Street, Room 498 Sacramento, California 95814 SAN ONOFRE NUCLEAR GENERATION STATION, UNIT NO. 1 DOCKET NO. 50-206

Director, Technical Assessment Division Office of Radiation Programs (AW-459) U. S. Environmental Protection Agency Crystal Mall #2 Arlington, Virginia 20460 U. S. Environmental Protection Agency Region IX Office

ATTN: EIS COORDINATOR

215 Freemont Street

San Francisco, California 94111



ENCLOSURE 1

Systematic Evaluation Program

Meteorology

San Onofre Unit 1

Topic II-2.A Severe Weather Phenomena

Severe weather occurrences in the site area are relatively infrequent. Extreme meteorological conditions and severe weather in the San Onofre site region were examined to determine if safety-related structures, systems, and components are designed to function under all severe weather conditions. Discussed below are the severe weather phenomena which could affect the San Onofre site and which should be examined relative to current Unit 1 design.

Measured extreme temperatures in the site area are 111 degrees Fahrenheit and 23 degrees Fahrenheit. The extreme maximum and minimum temperatures appropriate for San Onofre site for general plant design are 85 degrees Fahrenheit (equalled or exceeded one percent of the time) and 36 degrees Fahrenheit (equalled or exceeded 99 percent of the time), respectively.

The design windspeed (defined as the "fastest-mile" windspeed at a height of 30 feet above ground level with a return period of 100 years) of 100 miles per hour (the design parameter reported in the sphere enclosure project report) is acceptable. Dust and sand storms are relatively infrequent in the site region. Between 1940 and 1970, dust or blowing dust and sand reduced visibility to less than seven miles approximately one hour on an annual basis. Snow, glaze and hail are rare in the site vicinity and should not affect plant design.

Thunderstorms occur only 3 days per year on the average, which results in lightning not being a significant phenomenon in the area.

Similarly the recurrence interval for a tornado or waterspout striking the plant is approximately 70,000 years. The design basis tornado parameters for Unit 1 reported by Southern California Edison (SCE) for the sphere enclosure project are: maximum windspeed of 260 miles per hour based on a maximum rotational windspeed of 220 miles per hour and a maximum translational windspeed of 40 miles per hour and a pressure drop of 1.5 pounds per square inch in 4.5 seconds. These values were based on analysis by SCE of tornado data from seven southwestern California counties surrounding the plant site. Although the parameters deviate from the design basis tornado characteristics for Region II in Regulatory Guide 1.76, our independent assessment indicates that these design parameters are appropriate for the San Onofre site.

-2-

References

American Society of Heating, Refrigerating and Air Conditioning Engineers, 1972: Handbook of Fundamentals, New York, N.Y.

Regulatory Guide 1.76, "Design Basis Tornado for Nuclear Power Plants", U. S. Nuclear Regulatory Commission, Washington, D. C.

San Onofre Nuclear Generating Station, Unit 1, Amendment 52 to Final Safety Analysis Report, Sphere Enclosure Project, Docket No. 50-206, Southern Calkifornia Edison Company and San Diego Gas and Electric Company.

San Onofre Nuclear Generating Station, Units 2 and 3, Final Safety Analysis Report, Docket Nos. 50-361 and 50-362, Section 2.3, Southern California Edison Company and San Diego Gas and Electric Company.

United States Nuclear Regulatory Commission, Draft Statement, Section 2.6, San Onofre Nuclear Generating Station, Units 2 and 3, Docket Nos. 50-361 and 50-362, Washington, D. C.