



*Southern California Edison Company*

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December 20, 1990

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TELEPHONE  
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U. S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, D. C. 20555

Gentlemen:

Subject: **Docket No. 50-206**  
**10 CFR 50.63 Station Blackout**  
**San Onofre Nuclear Generating Station, Unit 1**

This letter identifies a deviation from the guidance in NUMARC 87-00 for determining the effect of a loss of ventilation during a station blackout. This letter also provides the results of our analyses to determine the temperature in the dominant areas of concern during a station blackout.

A new deviation from the NUMARC 87-00 guidance is required because we use a time dependent equation to determine temperature rise during a station blackout for the dominant areas of concern. Section 7.2.4 of NUMARC 87-00 contains a simplified steady state equation for calculating room temperature rise. For the areas analyzed at San Onofre Unit 1, steady state conditions are not reached within the four hour station blackout duration.

Using a time dependent analysis we can predict temperatures more precisely at the end of the four hour station blackout period. We used standard heat transfer practices in developing our time dependent equation and have shown that the temperatures in all dominant areas of concern, including the DC Switchgear Room and the Control Room, will be less than 120°F. The single exception is the Charging Pump Room where the predicted temperature will be approximately 140°F. The 140°F temperature is acceptable since the required equipment is qualified to a temperature in excess of 200°F.

Our May 1, 1990 and August 6, 1990 submittals should have included the deviation for using a different equation as described above. Our only HVAC deviation was identified in our May 1, 1990 submittal. We deviated from NUMARC 87-00 guidelines because Systematic Evaluation Program (SEP) evaluations were credited for three rooms, instead of performing new calculations using NUMARC 87-00 guidance. Subsequently, we have used the NUMARC 87-00 guidance (with the deviation identified above) to complete temperature rise calculations for these rooms.

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Since we no longer credit SEP evaluations for these rooms, the HVAC deviation as stated in the May 1, 1990 letter is no longer required. The new deviation is that a time dependent analysis was used to predict room temperatures after a station blackout instead of the steady state heat transfer analysis in NUMARC 87-00.

If you have any questions, please do not hesitate to call me.

Very truly yours,

A handwritten signature in black ink, appearing to read "J. B. Martin". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

cc: J. B. Martin, Regional Administrator, NRC Region V  
C. W. Caldwell, NRC Senior Resident Inspector, San Onofre Units 1, 2 & 3  
C. D. Townsend, NRC Resident Inspector, San Onofre Unit 1  
NUMARC (A. Marion)