



COMBUSTION ENGINEERING OWNERS GROUP

CE Nuclear Power LLC

Baltimore Gas & Electric
Calvert Cliffs 1, 2

Entergy Operations, Inc.
ANO 2 WSES Unit 3

Korea Electric Power Corp.
YGN 3, 4 Ulchin 3,4

Omaha Public Power District
Ft. Calhoun

Arizona Public Service Co.
Palo Verde 1, 2, 3

Consumers Energy Co.
Palisades

Florida Power & Light Co.
St. Lucie 1, 2

Northeast Utilities Service Co.
Millstone 2

Southern California Edison
SONGS 2,3

February 26, 2001
CEOG-01-060

NRC Project 692

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

**Subject: Response to Information Request concerning CEOG Topical Report
CE NPSD-1184, "Joint Application Report for DC Power AOT Extension"**

The purpose of this letter is to submit the attached responses to staff questions provided during recent telephone conversations regarding the subject report. The staff requested additional information regarding the average change in core damage frequency and the average change in large early release frequency resulting from the DC power source AOT extension. This letter documents the responses for use by the staff. Westinghouse and the CEOG utilities are prepared to discuss these responses and will meet with the staff, if necessary, in order to facilitate this review.

Please do not hesitate to call me at 623-393-5882 or Gordon Bischoff, CEOG Project Office, at 860-285-5494 if you have any questions.

Sincerely,

Richard Bernier
Chairman, CE Owners Group

Attachment: As Stated
cc w/2 copies: J. S. Cushing (OWFN, 4D-7)

cc: G. Bischoff, W
V. Paggen, W
PSA Subcommittee
Licensing Subcommittee
CEOG Library Task 849

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Responses to RAI
Regarding CE NPSD-1184
Average Change in CDF and LERF Resulting from
DC Power Source AOT Extension

In recent telephone conversations between the NRC staff and certain CEOG member utilities (Southern California Edison and Entergy Operations – Waterford 3), the NRC staff requested additional information on CEOG Topical Report CE NPSD-1184, “Joint Application Report for DC Power Source AOT Extension.” The request involved the submittal of the average change in core damage frequency (Δ CDF) and average change in large early release frequency (Δ LERF) resulting from the DC power source AOT extension. The following additional information is provided in response to this request.

The Δ CDF and Δ LERF for the San Onofre Nuclear Generating Station Units 2 and 3 (SONGS 2&3) and the Waterford Steam Electric Station Unit 3 (WSES-3) are summarized below.

Average Change in CDF and LERF
Due to DC Power Source AOT Extension

CEOG Plant	AOT [hrs]	Δ CDF [Per Year]	Δ LERF [Per Year]
SONGS 2&3	24	7.6E-07	3.0E-08
WSES-3	24	6.0E-08	4.3E-09

These values were derived from the updated ICCDP and ICLERP values in responses to the RAIs on CE NPSD-1184, which were transmitted to the NRC staff via letter CEOG-00-327 on November 21, 2000. The above Δ CDF and Δ LERF values are based on an assumed average entry of once per year into the LCO for a duration of 24 hours. Because on-line maintenance of a class 1E battery is a rare event, the values presented above are very conservative. Southern California Edison does not anticipate any corrective maintenance of a class 1E DC power source that would utilize the full-extended AOT (based on a review of prior maintenance history). Also, Southern California Edison does not plan any changes to its planned preventive maintenance program of the DC power source that would utilize the full-extended AOT. Entergy Operations anticipates entering the LCO and utilizing the extended AOT for only corrective maintenance activity, which is a rare event.

Regarding the recent (February 3, 2001) fire at SONGS Unit 3, the increase in the frequency of this event impacted the average SONGS Living PRA model CDF and LERF (i.e., increase of 3.0E-6 per year and 6.0E-8 per year, respectively). The impact is a negligible contributor to the DC power source ICCDP and ICLERP (i.e., 1.0E-9 and 1.0E-10, respectively). Thus the impact of the recent fire event at SONGS Unit 3 on the DC Power Source AOT extension is insignificant.

The results of the evaluation demonstrate that the proposed AOT extension provides plant operational flexibility while simultaneously allowing plant operation with an acceptable level of risk.