

PGE



May 5, 1981

Trojan Nuclear Plant
Docket 50-344
License NPF-1

Mr. R. H. Engelken, Director
U. S. Nuclear Regulatory Commission
Region V
Walnut Creek Plaza, Suite 202
1990 N. California Blvd.
Walnut Creek, CA 94596

Dear Mr. Engelken:

The following information is supplied to supplement License Event Report (LER) 79-15.

At the request of the NRC Staff (Office of Nuclear Reactor Regulation, Division of Licensing), during the week of April 20, 1981 Portland General Electric Company (PGE) directed Bechtel to reevaluate the masonry walls of the Trojan Nuclear Plant. This latest evaluation assessed the walls' resistance to out-of-plane seismic loads due to the Safe Shutdown Earthquake (SSE) using the criteria identified in our letter dated June 28, 1980, except that the wall capacities utilized were to be based upon cracked section properties regardless of whether or not the applied moment is sufficient to crack the wall. Although the evaluations performed by Bechtel to identify those walls requiring modification as committed in the June 28, 1980 letter did not compare applied moments with cracked capacities in those cases where the applied moment was below that required to crack the wall, this reevaluation has shown that all such walls have sufficient capacity to satisfy this latest criterion. The criteria to which PGE is now committed is summarized in the attached Supplement 5 to LER 79-15. (Items 1-5 in such supplement merely incorporate into the criteria document applicable criteria from the June 28, 1980 and August 20, 1980 letters. These five items do not reflect any change in the criteria; Item 6 reflects the only change from the previously applied criteria.)

In the course of evaluations for out-of-plane OBE loads on masonry walls, a condition was identified which conflicts with the intent of FSAR Section 3.8.1.1.7 regarding interaction between the diesel generator/ESF switchgear structure and the turbine pedestal. A 14-ft wide, 11-ft high panel in the south wall of the ESF switchgear room in the Turbine

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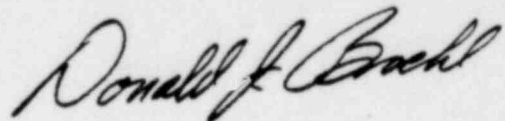
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Building spans between the Seismic Category I Diesel Generator/ESF switchgear structure and the Seismic Category II turbine pedestal. This condition has been evaluated by Bechtel, considering the integrity of the wall using criteria summarized in the attached Supplement 5 to LER 79-15 and also the potential interactions between the structures. The evaluation concluded that the condition does not present an unsafe condition. Nevertheless, this wall panel will be modified to provide separation between the structures consistent with the FSAR.

Sincerely,

A handwritten signature in cursive script, reading "Donald J. Braehl".

Attachment

c: Mr. Robert A. Clark
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission

Mr. Lynn Frank, Director
State of Oregon
Department of Energy

R. H. Engelken
May 5, 1981
Attachment

Trojan Nuclear Plant
Docket 50-344
License NP7-1

SUPPLEMENT 5
TO LER 79-15

SUMMARY OF CRITERIA FOR EVALUATION
OF OUT-OF-PLANE SSE LOADS ON MASONRY WALLS

Masonry walls are evaluated for out-of-plane loads due to the Safe Shut-down Earthquake (SSE) in accordance with Supplement 4 to LER 79-15 dated June 10, 1980, further supplemented and clarified as follows:

1. Applicability (Unchanged): The criteria apply to all single-wythe, double-wythe, and composite masonry walls having safety significance. Definition of "Walls Having Safety Significance" is provided as Attachment 2 to PGE's letter dated June 28, 1980 to NRC Region V (hereafter referred to as "June 28, 1980 letter").
2. Material Properties (Unchanged): Material properties for stiffness and capacity determinations are provided as Tables 3-1 and 3-3 attached to the June 28, 1980 letter.
3. Allowable Stresses (Unchanged): Allowable stresses for masonry walls are provided as Tables 5-1-a, 5-1-b, 5-1-c, and 5-1-d attached to the June 28, 1980 letter.
4. Rupture Modulus Considerations When Using Plate Action (Unchanged): Attachment 5 to the June 28, 1980 letter outlines additional considerations in selection of rupture modulus when plate action is utilized in analysis.
5. Interstory Displacement (Unchanged): Displacements are determined from the updated finite element analysis described in Attachment 1 to PGE's letter dated August 20, 1980 to NRC Region V. Additional considerations in determining forces associated with interstory displacement are given in Attachment 1 to the June 28, 1980 letter.
6. Limiting Moment Capacity (New Criteria): The limiting moment capacity for a wall shall be the cracked moment capacity regardless of whether or not the applied moment exceeds the cracking moment.