



Portland General Electric Company

Donald J. Broehl Assistant Vice President

May 19, 1980

Trojan Nuclear Plant  
Docket 50-344  
License NPF-1

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

Dear Mr. Engelken:

This is a follow-up to the report made by me to Mr. D. M. Sternberg of your office at approximately 6:30 p.m. on May 16, 1980 regarding discovery of a wall which is not adequately connected at its top to interfacing structural elements.

The subject wall consists of a single wythe of 12-in.-thick reinforced grouted masonry, approximately 80 ft. wide spanning from Elevation 61 ft. to Elevation 93 ft. It is the south wall of the Auxiliary Building adjacent to column line 55 between column lines F and N. The wall is adequately connected by reinforcing steel to the wall below Elevation 61 ft. and the floor slabs at Elevations 61 ft and 77 ft.; however, the top of the wall is not connected to the floor slab at Elevation 93 ft. The actual condition of this interface was determined during an inspection to verify boundary conditions for use in current evaluations related to Licensee Event Report (LER) 79-15.

This wall was evaluated in November 1979 relative to out-of-plane reaction forces during review of walls pursuant to LER 79-15. Since typical details and construction notes on design drawings would indicate that a positive connection should have been made, that evaluation assumed a pin-ended condition at the top of the wall which is now known not to exist. Analyzing the wall as an effective cantilever indicates that it cannot adequately resist out-of-plane loads. Corrective action will be taken to provide appropriate end connections for this wall.

Although the original Plant design did not rely on this wall to serve as a shear wall, it was assumed to be connected and participate as a minor structural shear-resisting element in the STARDYNE finite element analyses of the Control-Auxiliary-Fuel Building Complex (Complex) for the Control Building proceedings, Phase 1 (Interim Operation - As-Built) and Phase 2 (Modified Complex). Since this wall is in close proximity to a parallel 4-ft.-thick shield wall and its relative strength and stiffness are low, removal of this wall from the STARDYNE model or reduction of its

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121 S.W. Salmon Street, Portland, Oregon 97204

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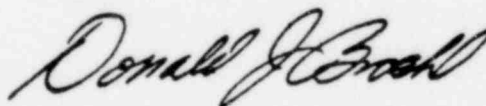
shear capacity to zero will not reduce the capability of the as-built structure below that required to resist the Safe Shutdown Earthquake. In any event, prompt corrective action is being taken to connect the wall such that it will participate as assumed in the STARDYNE analyses.

An initial review has been performed to assess the potential effects of degradation of the subject wall. The wall provides partial lateral restraint for cable trays vertically supported from structural steel beneath the Elevation 93 ft. floor slab. The cable trays contain cables serving several train B safety systems, but they contain no train A cables. Portions of safety train B are currently out of service for installation of decouple switches, and equipment operability requirements are being met with train A equipment. The Plant is in a refueling shutdown with transfer of fuel assemblies from the Spent Fuel Pool to the reactor vessel in progress. In this condition, there is no immediate concern for Plant safety while this occurrence is being evaluated further and corrective action is being taken.

Other masonry walls at the Plant are being reviewed to determine if similar conditions exist elsewhere. The results of this review will be provided in the detailed report.

This occurrence will be reported to the Nuclear Regulatory Commission in accordance with the Technical Specifications. That report will provide a more detailed description and analysis of the occurrence, the cause of the occurrence, a description of and basis for the corrective action being taken, and a schedule for completion of documentation and corrective action. In addition, a safety evaluation for transition from operational Mode 6 to Mode 5 will be provided prior to bolting on the reactor vessel head.

Sincerely,



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

Mr. Robert A. Clark, Chief  
Operating Reactors Branch No. 3  
Division of Operating Reactors  
U. S. Nuclear Regulatory Commission