

DESIGNATED ORIGINAL

Certified By

Jean B...

PACIFIC GAS AND ELECTRIC COMPANY

PG&E

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[Faint, illegible text, likely a routing slip or list of recipients]

September 30, 1981

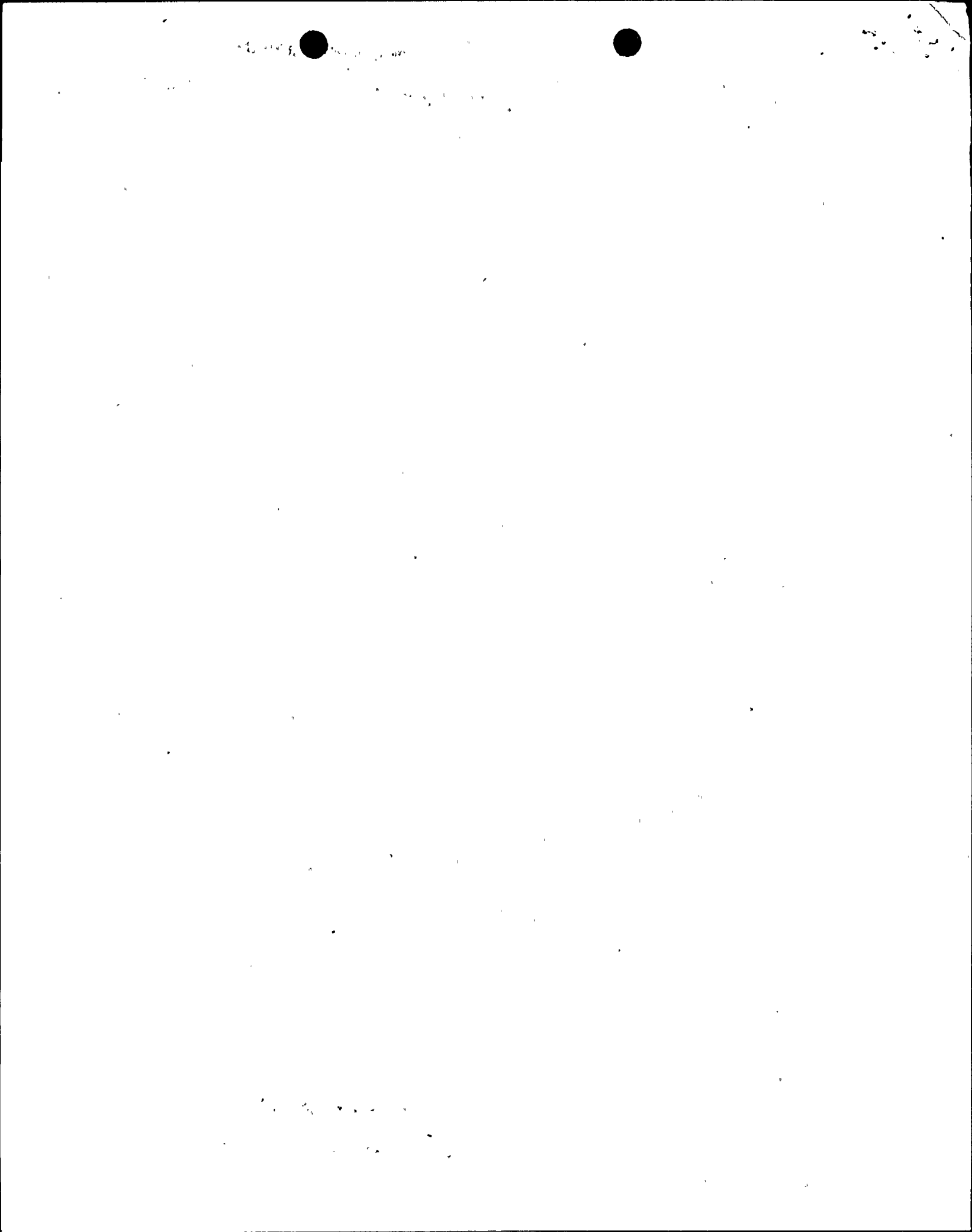
Mr. R. H. Engelken, Director
Office of Inspection and Enforcement
Region V
U. S. Nuclear Regulatory Commission
1990 N. California Boulevard
Walnut Creek Plaza, Suite 202
Walnut Creek, CA 94596

Dear Mr. Engelken:

This supplements our September 28, 1981 letter on a discovery of an error found in the analyses of systems contained in the annulus area of the Unit 1 containment building. This letter is intended to provide background information and the present status of our review. As a result of this discovery we are reviewing the seismic design of plant components located in the annulus area to verify compliance with seismic design criteria. We have not yet determined that changes in the physical plant are required. However, in our September 28, 1981 letter, PG&E committed to delay fuel loading until items necessary for fuel loading are resolved and concurrence is obtained from the NRC. Because of the collective conservative assumptions and methodology used by PG&E and its consultants during the design of the plant, PG&E is optimistic that most existing installations should be adequate for changed, and in some cases increased, spectra requirements, and that only minor modification may be required.

As indicated in our September 28, 1981 letter, the principal problem is associated with the vertical seismic floor response (VSFR) spectra used to design piping systems in the annulus area of the containment. PG&E has determined that the diagram used to locate the

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VSFR spectra in the Unit 1 containment annulus area above the base slab through the operating deck at Elevation 140 was in error. The diagram used to locate the spectra was applicable to Unit 2, but was identified for use in the Unit 1 seismic design. Since the arrangement of Units 1 and 2 are opposite hand to each other and the VSFR spectra are dependent on circumferential location, certain piping was analyzed utilizing inappropriate spectra.

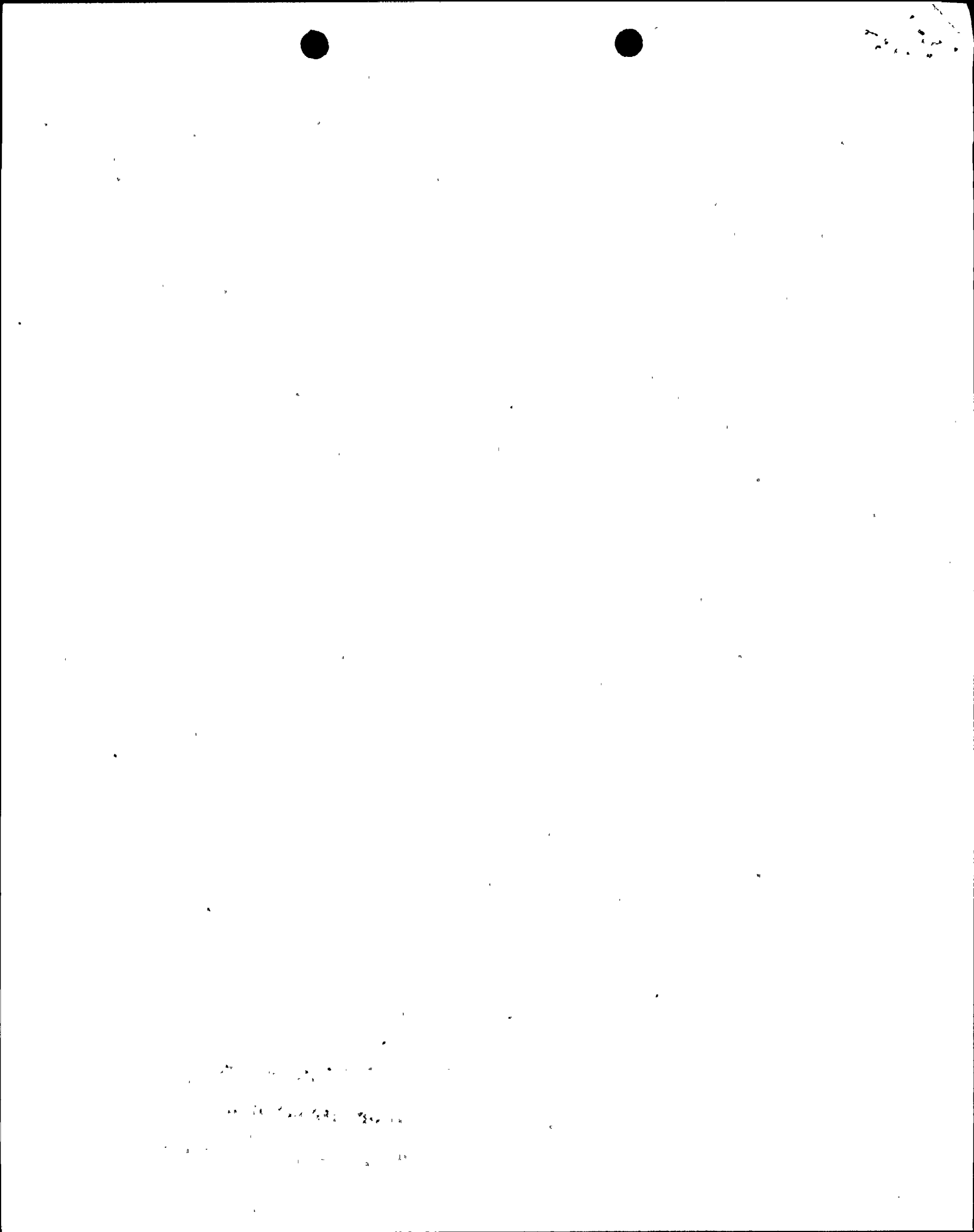
PGandE is currently reviewing piping analyses using the correct diagram. Preliminary indications are that 14 of the 59 computer generated large diameter piping analyses for the annulus area may be affected. Fourteen of seventy-six large diameter pipe support designs not included in the above computer generated piping analyses may also be affected. Small diameter piping analyses and pipe support designs are also being reviewed in a similar manner. PGandE will reanalyze all affected analyses to verify piping stress acceptability and all affected pipe support designs will be reviewed and requalified or redesigned to comply with the corrected loads.

Investigations are also underway to determine what effect this discrepancy has on other systems in the annulus area. So far we have determined that in addition to the error in the orientation of the diagram, the final VSFR spectra was not used in the design of electrical conduit and cable tray supports. We have underway a comprehensive review of the capability of these supports to accommodate the proper VSFR spectra. Comparable reviews are underway for other components and systems.

The problem was discovered by Company engineers assigned piping analysis responsibilities. Their work required utilization of the diagram which we now have determined to be incorrect. Since the VSFR spectra varied considerably with azimuth location and the spectra locations were not spaced with constant degrees of separation, a question was raised. Subsequent investigation by Company and consultant engineers confirmed the problem. This error was identified as potentially affecting piping analysis and pipe support design late on Friday, September 25, 1981. Over the weekend this situation was determined to be reportable. On Monday, September 28, 1981, PGandE notified I&E Region V of this matter.

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At the present time, information and analyses are being compiled to determine the significance of this problem. While PGandE is still reviewing the cause of the problem, preliminary investigations indicate the cause of this error affects only analysis of containment annulus systems and has no impact on overall seismic design adequacy. This conclusion is made since no deficiencies have been identified with analysis methods or plant configuration drawings. We plan to present additional information regarding the above concerns at the meeting with the NRC staff set for October 5, 1981 at 9:00 a.m. in Bethesda, Maryland..

Very truly yours,

Philip P. Brennan

cc: Service List

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