

DEC 18 1972

Docket Nos. 50-275
and 50-323

Pacific Gas and Electric Company
ATTN: Mr. Frederick T. Searls
Vice President and General Counsel
77 Beale Street
San Francisco, California 94106

Gentlemen:

The Regulatory staff's continuing review of reactor power plant safety indicates that the consequences of postulated pipe failures outside of the containment structure, including the rupture of a main steam or feedwater line, need to be adequately documented and analyzed by licensees and applicants, and evaluated by the staff as soon as possible. Criterion No. 4 of the Commission's General Design Criteria, listed in Appendix A of 10 CFR Part 50 requires that:

"Structures, systems, and components important to safety shall be designed to accommodate the effects of and to be compatible with the environmental conditions associated with normal operation, maintenance, testing and postulated accidents, including loss-of-coolant accidents. These structures, systems, and components shall be appropriately protected against dynamic effects, including the effects of missiles, pipe whipping, and discharging fluids, that may result from equipment failures and from events and conditions outside the nuclear power unit."

The previous version of the Commission's General Design Criteria also reflects the above requirements.

Thus, a nuclear plant should be designed so that the reactor can be shut down and maintained in a safe shutdown condition in the event of a postulated rupture, outside containment, of a pipe containing a high-energy fluid, including the double-ended rupture of the largest pipe in the main steam and feedwater systems. Plant structures, systems, and components important to safety should be designed and located in the facility to accommodate the effects of such a postulated pipe failure to the extent necessary to assure that a safe shutdown condition of the reactor can be accomplished and maintained.

OFFICE ►

SURNAME ►

DATE ►

DEC 18 1955

RECEIVED
FEB 18 1956

THE
DIRECTOR
FEDERAL BUREAU OF INVESTIGATION
WASHINGTON, D. C.

MEMORANDUM

TO : DIRECTOR, FBI
FROM : SAC, NEW YORK
SUBJECT: [Illegible]

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Based on the information we presently have available to us on the Diablo Canyon Reactor Units 1 and 2, we understand that steam and feedwater lines pass through closed compartments that are adjacent to walls, ceilings or floors of compartments in the auxiliary building that contain structures, systems, or components important to safety and that rupture of these lines may damage adjacent compartments due to overpressurization of the closed compartment or pipe whip. From this it appears that venting the closed compartment that houses the steam and feedwater lines and installing pipe whip restraints may be required.

We request that you provide us with analyses and other relevant information needed to determine the consequences of such an event, using the guidance provided in the enclosed general information request. The enclosure represents our basic information requirements for plants now being constructed or operating. You should determine the applicability, for the Diablo Canyon Reactor Units 1 and 2, of the items listed in the enclosure.

If the results of your analyses indicate that changes in the design of structures, systems, or components are necessary to assure safe reactor shutdown in the event this postulated accident situation should occur, please provide information on your plans to revise the design of your facility to accommodate the postulated failures described above. Any design modifications proposed should include appropriate consideration of the guidelines and requests for information in the enclosure.

We will also need, as soon as possible, estimates of the schedule for design, fabrication, and installation of any modifications found to be necessary. Please inform us within 7 days after receipt of this letter when we may expect to receive an amendment with your analysis of this postulated accident situation for the Diablo Canyon Reactor Units 1 and 2, a description of any proposed modifications, and the schedule estimates described above. Sixty copies of the amendment should be provided.

A copy of the Commission's press announcement on this matter is also enclosed for your information.

Sincerely,

15

A. Giambusso, Deputy Director
for Reactor Projects
Directorate of Licensing

OFFICE

Enclosures:

SURNAME

As stated

DATE

cc: See Next Page

1. *Chlorophyll a* and *Chlorophyll b* were determined by the method of Arar and Collins (1987).

1. The first group of people who are interested in the study of the history of the United States are the people who are interested in the history of the United States.

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1. The first part of the document is a list of names and titles, including "The Hon. Mr. Justice" and "The Hon. Mr. Justice".

1. The first group of people who are interested in the results of the study are the researchers themselves. They want to know if the study was successful in achieving its objectives and if the results are consistent with their expectations. They also want to know if the study was conducted in a rigorous and unbiased manner.

$$V = \frac{1}{\sqrt{2}} \begin{pmatrix} 0 & -1 \\ 1 & 0 \end{pmatrix}, \quad U = \frac{1}{\sqrt{2}} \begin{pmatrix} 1 & 1 \\ i & -i \end{pmatrix}, \quad W = \frac{1}{\sqrt{2}} \begin{pmatrix} 1 & -1 \\ i & i \end{pmatrix}$$
[illegible]

cc: Philip A. Crane, Jr., Esq.
Pacific Gas and Electric Company
245 Market Street
San Francisco, California 94106

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FOR CONCURRENCES SEE DOCKET NO. 50-275

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DATE ▶	12/15/72	12/18/72	12/19/72	12/19/72	12/19/72

