



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION V
1450 MARIA LANE, SUITE 260
WALNUT CREEK, CALIFORNIA 94596

JAN 16 1982

MEMORANDUM FOR: H. R. Denton, *Director*,
Office of Nuclear Reactor Regulation

FROM: R. H. Engelken, Regional Administrator
Region V

SUBJECT: REVERIFICATION PROGRAM BY R. L. CLOUD ASSOCIATES, INC.
FOR DIABLO CANYON

Attached is a memorandum by Messrs. Morrill, Herring, and Fair which underscores concerns expressed in my memorandum to you, subject as above, dated December 31, 1981. I understand a briefing of NRR management by Messrs. Morrill, Herring, and Fair is scheduled for early next week, at which time the concerns covered by the attached memorandum will be discussed in detail.

The technical adequacy, as well as the scope of work by Dr. Cloud and other Pacific Gas and Electric (PG&E) contractor's with regard to the design reverification program for Diablo Canyon, are matters for which NRR has lead responsibility. I do, however, as expressed in my memorandum of December 31, recommend that the NRC staff meet at the earliest opportunity with PG&E and their contractors to discuss and clarify, as appropriate, the scope and technical adequacy of the reverification effort which is currently ongoing.

I further recommend and urge your prompt consideration to the assignment of full time NRR assistance to Region V for the duration of the Diablo Canyon reverification program. The assistance of Mr. Herring, as well as Mr. Fair of IE, over the past several days has been of exceptional value. Such an assignment would substantially enhance the important interfacing between NRR and Region V throughout the Diablo Canyon reverification effort, and would represent an important step toward the implementation of Regionalization.

Should you have questions regarding the recommendations discussed, please give me a call.

R. H. Engelken
Regional Administrator

Enclosure: As Stated

cc w/enclosure:
W. J. Dircks, EDO
R. C. DeYoung, IE

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January 15, 1982

MEMORANDUM FOR: R. H. Engelken, Regional Administrator

THRU: J. L. Crews, Chief, Division of Resident, Reactor
Projects, and Engineering Inspection

FROM: P. J. Morrill, Reactor Inspector, Region V
K. S. Herring, Systematic Evaluation Program Branch, Division
of Licensing, NRR
J. R. Fair, Reactor Engineering Branch, IE

SUBJECT: PRELIMINARY ASSESSMENT OF R. L. CLOUD AND PG&E
REVERIFICATION PROGRAM

Based on recent inspection efforts of the R. L. Cloud/PG&E Reverification Program, it appears, in our opinion, that there are serious concerns requiring prompt NRC Management/Staff evaluation and direction. Without staff evaluation of the proposal submitted by PG&E on December 4, 1981, and direction and clarification to PG&E/Cloud as to what is acceptable or not acceptable, Cloud and PG&E will continue on their present "Program" with its various potential problems; while the inspection staff will be delayed in its effort by a lack of sufficient definition as to what constitutes a program acceptable to NRC. Messrs. K. Herring and J. Fair of Headquarters have worked during the period of January 13-15, 1982, to develop the following potential problems with ongoing work by R. L. Cloud Associates.

1. Issues Identified by Cloud's Preliminary Seismic Reverification Program are not Necessarily Being Pursued by Cloud's Current Work.(e.g.).
 - Westinghouse adequacy to correctly use Blume's Seismic Response (incorrect use of Tau Filtered Vertical Spectra in at least two instances).
 - Adequacy of Control Room equipment qualification based only on a review of document transmittal dates, not the documents themselves.
2. The Scope of the Work Being Done in Accordance with the December 4, 1981 Proposed Seismic Reverification Program Appears to be Less than that Required by the NRC's Order of November 19, 1981 (e.g.).
 - There is no provision in Cloud's work to verify PG&E's structural element evaluations given input from Blume.
 - Cloud has excluded Westinghouse and General Electric from further examination "...because their work was performed in support of the sale and licensing of the NSSS and associated products.

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3. The Criteria for Identification, Significance Determination, Reporting "Deviations" and Follow-up of Errors and Omissions Discovered have not been Established or defined (e.g.)

- The auxiliary building seismic responses documented in the Hosgri report were not up-dated upon the receipt of the final Blume report to PG&E in October 1979. The NRC was not informed when PG&E became aware of this deficiency in November 1981.
- The intake structure seismic responses documented in the Hosgri report appear to have similar problems which have not been reported previously to the NRC although PG&E and Cloud personnel are evaluating the problem.
- Further deficiencies in this area are discussed in Item 5, below.

4. The Level of Reverification and Additional Sampling Appear Inadequate (e.g.)

- The independent reverification of the auxiliary building structure is being done by one individual with hand calculations of the building masses and stiffnesses. No independent computer run or examination of Blume's work is expected unless the masses or stiffness developed by PG&E are found to be greater than 10 to 15 percent in error per the December 4, 1981 PG&E submittal. Review indicates a problem in this area in the Blume QA/QC program.
- The seismic model for a fan cooler was found by Cloud to be in error. The error turned out to be conservative (in this case), consequently, no additional sampling appears to be scheduled for such cases.

5. The Acceptance Criteria and Methodology of the Reverification Program are not Adequately Defined (e.g.).

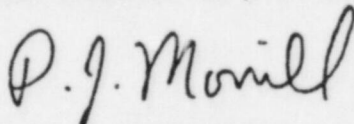
- The methodology used for evaluation of structures (auxiliary building), piping and equipment (in most cases) is the same as that reportedly used by PG&E or its contractors. State of the art improvements are generally not being used.
- On January 4, 1982, Cloud personnel documented "Criteria and Methodology for Independent Calculations" and "Criteria for Independent Evaluation" by an internal memo. This material has not been incorporated into the December 4, 1981 program plan. Both sets of criteria do not define in much detail the criteria for reanalysis, the acceptance and rejection criteria, and the criteria to be used for considering sample expansion. Discussions with Cloud's employees indicated that confusion and a lack of defined goals exist in these areas.

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These problems point out the need to promptly:

- ° Accept or Reject Cloud
- ° Determine the Adequacy of the Reverification Program
- ° Develop Necessary Guidance (Scope, Criteria, Reporting, Methodology, etc.)

A convenient form to resolve these concerns is a meeting with PG&E and their contractors such as that previously scheduled for January 19, 1981, and subsequently postponed. We propose that a meeting of appropriate NRC Staff be held as soon as possible to discuss further the concerns described above, to be followed up by a meeting with the licensee as previously planned.



P. J. Morrill
Reactor Inspector, Region V



K. S. Herring
Systematic Evaluation Program Branch
Division of Licensing, NRR

J. R. Fair
Reactor Engineering Branch, IE

