

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

JUN 29 1984



MEMORANDUM FOR: Diablo Canyon Piping Peer Review Panel

FROM: Richard H. Vollmer, Director
Division of Engineering

SUBJECT: COMPLETION OF PIPING REVIEW ACTIVITIES FOR DIABLO
CANYON

The following activities will complete the pre-licensing review of piping allegations for the Diablo Canyon Nuclear Power Plant.

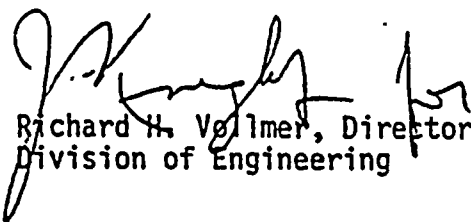
1. Each license condition task team leader will submit to me a polished draft of the task team report with copies to each addressee listed in the distribution for this memo. Each addressee of this memo should provide in writing any comments they wish to contribute to any of the task team reports. These comments should be forwarded to the appropriate task team leader with copies to all other addressees. All comments will be accommodated either by mutually agreed to modifications to the report or by inclusion in the text of the report.
2. Mr. Yin will complete his inspection report reflecting his observations and conclusions. The completed report will be submitted to me with copies to each addressee of this memo. Each addressee should review the final inspection report in conjunction with the task team reports for which they were responsible to assure that the staff review program adequately addresses the identified inspection issues.
3. An additional task team has been established with R. Heishman as leader to review the Diablo Canyon project programmatic QA activities related to the recent announcements by PG&E that the Tolerance Clarification program was terminated as of June 8, 1984 and that engineering authority was rescinded for the OPEG as of June 14, 1984. The licensee will address these matters at a meeting in Bethesda, MD. on July 2, 1984. Based on the task team evaluation the Peer Review Panel will recommend actions or license conditions, if appropriate, to assure full resolution of issues related to the programmatic QA activities. Region V, with support from NRR/IE as necessary, will follow-up on these actions and conditions.

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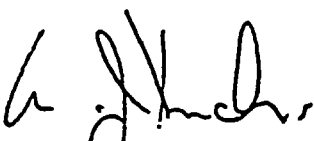


4. New information regarding allegations should be forwarded to NRR (H. Schierling) and Region V (T. Bishop) for screening as to possible duplication and assignment for necessary review.

Each addressee will be kept informed of all meetings relevant to the issues they have been concerned with and will be sent copies of any documents prepared by PG&E and the staff on these issues. Attendance at some or all of the meetings relevant to those issues may be required.


Richard H. Vollmer, Director
Division of Engineering

Approved:



William J. Dircks
Executive Director for Operations

- cc: H. Denton
E. Case
R. DeYoung
J. Martin
J. Keppler
D. Eisenhut
T. Bishop
L. Spessard
S. Ebnetter

ADDRESSEES:

- J. Knight
R. Bosnak
M. Hartzman
J. Taylor
R. Heishman
D. Allison
H. Schierling
K. Manoly
E. Sullivan
H. Fleck, ETEC
P. Chen, ETEC
T. Burr, EG&G
K. Morton, EG&G
E. Rodabaugh, ECR
B. Saffell, Battelle
I. Yin



U.S. NUCLEAR REGULATORY COMMISSION
Office of Inspector and Auditor

Date of transcription July 18, 1984

Report of Interview

Isa Yin, Senior Mechanical Engineer, Division of Engineering, Region III, upon telephonic interview concerning a possible allegation that Richard Vollmer, Director, Division of Engineering, Nuclear Reactor Regulation (NRR), had interfered with Yin's ability to properly do his job in violation of 10 CFR 0.735-49a(f), provided the following information:

Yin had seen the July 11 affidavit (Exhibit 1) executed by Thomas Devine which, according to Yin, Devine had also sent to Chairman Palladino and the other Commissioners. As background, Yin noted that he was not aware that Devine was in any way recording (writing) his comments at the time he talked to Devine. He further noted that at the time he had been tired after a long day, had been out to eat and had had a few drinks, and did not know that Devine was going to use his comments. In any event, he had noticed some inaccuracies in the substance of Devine's affidavit and had other comments to offer, although overall he thought it to be correct.

Investigator's Note: To facilitate relating Yin's comments to the affidavit, paragraph numbers have been added to the affidavit, Exhibit 1, and are so discussed below.

Paragraph 2 - Yin did not think that he had used the phrase "compromise his integrity in reference to the reason for his intent" to tender his resignation from the Diablo Canyon case. On the other hand, he doesn't clearly remember and so could have made the remark.

Paragraph 3 - Yin had no further comment regarding this paragraph or its factual accuracy.

Paragraph 4 - Yin said that it would be more accurate to say that the review team spent 2-3 days on the work because they stayed one day longer than the approximately 1 1/2 days he spent reviewing records.

Paragraph 5 - Yin thought this paragraph was "factual."

Paragraph 6 - This paragraph too was factually correct except that "(O)PEG" had not been abolished. Only OPEG's design responsibility has been abolished.

Paragraph 7 "Factual" according to Yin.

Paragraph 8 - Yin found the last sentence to be incorrect. He was dealing with only a small narrow area of part of the calculation which showed a gross error. But that did not mean that the entire geometry was grossly in error.

Investigation on July 16, 1984 *WNS* at Bethesda, Md. File # 84-26
by Ronald M. Smith, Senior Investigator, OIA Date dictated July 18, 1984

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Paragraph 9 - The 70% figure he provided was for both the large and small bore piping. As to the rest of the paragraph, he was not sure whether he had said that the "basic problem was that management had intentionally violated the requirements." He did not think that it was very professional to say that sort of thing in public. However, he believes that it was very difficult for management not to have known what was happening.

Paragraph 10 - He cannot be sure "there were many more deficiencies" because he did not look at many records. Therefore, Devine's comment is overstated. Based on the records he did review, he did find significant issues, e.g., the gross geometry issue addressed above.

Paragraph 11 - Yin said that he definitely has a feeling that we (NRC) have done our work sloppily. NRR has not set schedules or made work assignments and has allowed too little time to do the task. He thinks the effort was not really planned efficiently; the time spent and sample selected did not seem to be sufficient and what they have done has not been that well documented. In contrast, Region III just could not get away with that approach. However, Devine's statement is too strong and suggests a coverup. Yin just disagrees professionally with how the job was done. He does not question their integrity, but rather the efficiency and reliability of what they (peer review group, NRR) have done.

Paragraph 12 - It was not his intent to go public with that kind of language; but nevertheless, Yin thought that there was a lot of truth in the comments.

Paragraph 13 - Devine asked Yin to provide an affidavit outlining his concerns and Yin declined. Then Devine suggested the "differing professional opinion" approach. Yin responded to Devine that he didn't want to do that because he just wanted to get away from the situation and didn't want to get involved in a formalized disagreement process. He wanted to get back to Region III and his normal activities.

Paragraph 14 - The phrase "he was always watched" is in part untrue and it leads to an erroneous impression. Originally, Yin was "doing his own thing." Later, participating management supervision was added; but there still was no effort by management to interfere or keep him from looking at anything.

Paragraph 15 - Yin had no comment to offer regarding this paragraph.

Investigator Note: Yin was next apprised of the allegation concerning Mr. Vollmer, NRR, identified as item 16 in Devine's interview (extracted at Exhibit 2) and was asked for comment.

Yin said that he was not previously aware of the allegation. He doesn't want to make any allegations against management (NRC). It is a management decision as to whether to license a facility. He only wants to produce facts so that management can make an informed decision based on all the facts. He has done his job the same way for ten years in Region III. But on Diablo and under NRR, the approach was very different from that of Region III. Region III would have looked in more detail and would have documented and then evaluated the material. Any concern raised is reviewed to insure that there is not a generic problem by spending more time on the concern. In his view, NRR spent minimal time on the issues found. It is a "professional difference" in his



view because he respects their professionalism, honesty, and integrity (as he thinks they do his) - it simply was a difference in approach.

Exhibits:
As Stated



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GOVERNMENT ACCOUNTABILITY PROJECT

Institute for Policy Studies
1901 Que Street, N.W., Washington, D.C. 20009

*For 7/12/84
Jullia
Ren
K.V.S. 7/13/84*

(202) 234-9382

July 11, 1984

Mr. George Messenger
Acting Director
Office of Inspector and Auditor
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Messenger:

Enclosed is an affidavit that provides further support for the events concerning inspector Isa Yin included in allegation 16 of my Report of Interview with the Office of Inspector and Auditor. I have not yet perfected the substance of this affidavit, in deference to the format and relevant citations that Mr. Smith may deem appropriate. In light of the affidavit's significance, I request that Mr. Smith interview me to formally revise and supplement allegation 16, or to prepare separate charges at his direction.

Sincerely,

Thomas Devine
Thomas Devine
Legal Director

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AFFIDAVIT

1. My name is Thomas Devine. I am the legal director of the ^{TD} Government Accountability Project. I am submitting this affidavit to the Nuclear Regulatory Commission to fulfill my duties as a citizen. It is necessary to disclose recently-learned information which raises serious questions about the reliability and integrity of the oversight of the Diablo Canyon nuclear power plant by the Nuclear Regulatory Commission's Office of Nuclear Reactor Regulation (NRR). Unless the information is mistaken or drastic corrective action is imposed immediately, the disclosure suggests that the staff will not be able to offer reasonable assurance that Diablo Canyon is legally ready for commercial operation.

2. On Monday, June 25, I called Mr. Isa Yin in an attempt to schedule interviews with Diablo Canyon witnesses. I called Mr. Yin directly, because my attempts to schedule interviews through NRC management had been fruitless. Mr. Yin told me that he was about to tender his resignation from the Diablo Canyon case, because he was being asked to ~~compromise his integrity~~. I urged him to reconsider, because he was a motivating force for whistleblowers who otherwise were wary of disclosing evidence to the NRC. Mr. Yin agreed that I could call him in the morning.

3. The next evening, Mr. Yin informed me that he had resigned from the case and was going back to work in Region III. He said that he couldn't do his job under the conditions. I inquired who was preventing him from doing his job. He responded by identifying Mr. Richard Vollmer, head of the peer review team assigned to Mr. Yin's inspection and the ensuing remedial program.

TD



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I asked Mr. Yin how Mr. Vollmer was obstructing him. Mr. ^{TD} Yin began by referring to his work in the Cloud offices the week before. He said that due to all the meetings and presentations, he only had one-and-a-half days to review records necessary to resolve his ongoing concerns about the Independent Design Verification Program (IDVP). He said that he needed more time and wanted to return the next week, but Mr. Vollmer denied the request. Mr. Yin later added that he had waited two months to see the records. He said the entire review team only spent two days on work that should have taken a few weeks.

5. Mr. Yin stated that he also wanted to review the IDVP records of the Reedy firm which had not found serious quality assurance/quality control (QA/QC) problems. Since Mr. Yin had found a QA breakdown, he wanted to see what happened at Reedy, but Mr. Vollmer denied his request.

6. Mr. Yin wanted to review the new reorganization on-site, which was instituted in response to his inspection findings. The Onsite Project Engineering Group (PEG) had been abolished, and Mr. Yin wanted to inspect if the new program were an improvement. Again, Mr. Vollmer denied his request.

7. Mr. Yin also questioned the staff's evaluation standards for engineering calculations. He expressed his belief that calculations must be clean, or free from errors. He said that NRR was accepting many errors after deciding that they were not individually significant to safety. Mr. Yin expressed concern that this would send a message to the industry that errors are acceptable, and the standards for engineering work would suffer.

TD



8 He rebutted the staff's conclusion that the errors are not safety-significant, because there are so many for such a small sample. He said that with a large number of errors, the sample would have to be expanded to draw any conclusions about whether there is a safety problem. He said, for example, that the staff does not yet know how badly the geometry is off, or the effects. But from what he could tell, the geometry was gross. ^{TD}

9 Mr. Yin expressed serious concerns about the Diablo Canyon management. He said that the basic problem was that management had intentionally violated the requirements. To illustrate, he said that for large bore piping, they Quick Fixed 70% of what they touched. He emphasized that management was intentionally screwing QA.

10. Mr. Yin revealed that there were many more deficiencies found than were listed in the Interim Technical Reports. The Pacific Gas and Electric Company's (PG&E) excuse was that the missing deficiencies were not significant, but Mr. Yin said that he thought many were significant. He added that if all the small errors were combined, their effect would be significant.

11 Overall, Mr. Yin assessed both the Diablo Canyon management and NRR responses as a big Quick Fix. He explained that they are trying to do in a few months what they could not do in two years, and that's asking for trouble.

12 Mr. Yin stated that NRR members exhibited their bias by speaking as if their work were done before they had finished their reviews or had heard the licensee's presentation to the staff at a meeting in Washington, D.C., then scheduled for June 29. He ^{TD}



said that he already had declined to attend the scheduled ^{TD} Washington, D.C., meeting because he did not want to put up with another dog and pony show.

13. I suggested that Mr. Yin should consider filing a differing professional opinion as a proper channel to express his disagreement. He responded that he had expressed a differing professional opinion in March to the Commission, and it had led to his current situation. He did not want to repeat that.

14. I told Mr. Yin that if he quit, it could cause whistle-blowers at the plant who wanted to disclose their evidence to him to quit. He said that he had not been able to touch any followup to employee allegations. He explained that if management did not want him to look, he could not look. He said that when he was allowed to see records, he was always watched.

15. I asked Mr. Yin, if he were allowed to do his job without obstruction, would he come back and see it through. He answered yes, but that it was a bit "if." He said in the region he goes out and inspects, and writes up his reports. But with NRR he couldn't see the records. He concluded that unless he had the freedom to do his job, it was silly to try.

I have read the above four-page affidavit, and it is true, accurate and complete to the best of my knowledge and belief. I also read the affidavit to Mr. Yin, and he confirmed the verbatim accuracy of the contents as typed above.

DISTRICT OF COLUMBIA
Subscribed and sworn to before me this
17th day of July, 1984.
Michael H. Dadek
Notary Public, D.C.
Commission Expires 3-14-86.

Thomas Devine
Thomas Devine



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^DThe necessary facts for the following two allegations had not occurred at the time of the June 25-27 interview. At Mr. Smith's instructions for this type of contingency, they are summarized below as the most complete statement which is possible at this time.

15. That a person or persons unknown on the NRC staff, made false and/or misleading statements by omission through failure to provide sufficiently accurate, complete notice to the Atomic Safety and Licensing Appeal Board of an issue material to the license -- the use of A307 bolts with the heads removed as studs welded to the containment liner. On May 31, 1984 the Quality Assurance manager for the licensee's contractor Pullman Power Products informed personnel that the use of these bolts was "NOT acceptable." (emphasis in original). On June 12 the joint intervenors filed a copy of the memorandum with the Appeal Board, which reserved judgment on Diablo Canyon's commercial license with respect to this issue and ordered a response from the licensee. Over six months earlier, in a January 5, 1984 interview, two witnesses had notified Region V inspectors Dennis Kirsch and Gonzalo Hernandez of the same unacceptable practice. In NUREG-0675, SSER 22, the staff reported that numerous challenged materials, including those covered by the January 5 allegations, were approved, suitable and acceptable for use. As a result, the incomplete record on this issue conflicts both with the allegers and site management. This creates at least the "appearance of" actions prescribed under 10 CFR 0.735-49a, which could "affect adversely the confidence of the public in the integrity of the Government." 10 CFR 0.735-49a(f).

(References to the January 5 disclosure are found on pages 21-25 of the draft transcript to that meeting, which is attached hereto. The reference to this issue in the Appeal Board's decision is found on pages ten and eleven, footnote 21, of its June 28, 1984 Memorandum and Order, which is attached hereto. The reference to the staff's published position is found within pages A.4-103.3 through 103.6 of SSER 22. Further, Mr. Clewett and the two employee witnesses, who all participated in the January 5 interview, request to be interviewed by Mr. Smith on this allegation.)

~~That~~ That on Thursday, July 5, Richard Vollmer, NRR, violated prior staff agreements with witnesses by announcing that NRC inspector Isa Yin no longer would be permitted to conduct interviews with Diablo Canyon witnesses. This announcement violated a December 1983 NRC staff agreement with Mr. Charles Stokes, whose allegations later were confirmed by Mr. Yin. This also violated an agreement by the NRC staff at a May 22, 1984 meeting, ^D



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① for Mr. Yin to interview additional whistleblowers to receive evidence of specific safety problems due to the Quick Fix program in Unit 1. Mr. Vollmer's subsequent refusal to permit Mr. Yin's participation in employee interviews occurred during a July 5 telephone conversation with myself. Mr. Vollmer made this decision, despite his knowledge that due to a previous loss of confidence by relevant Diablo Canyon whistleblowers in the integrity of the NRC, they would only disclose their evidence to Mr. Yin as a channel to receive a good faith review.

Mr. Vollmer knowingly took action that will contribute to the staff's failure to receive evidence material for the upcoming decision on a commercial license, since the Quick Fix program is one of the action items that must be resolved prior to licensing. The evidence is even more significant to test the accuracy of the licensee's claim that a complete review of the Quick Fix program confirmed the absence of any significant problems. Mr. Vollmer's action also further erodes "confidence in the integrity of the Government," in violation of 10 CFR 0.736-a(f).

(As support for this allegation, Mr. Stokes and I both request to be interviewed by Mr. Smigth. I also am seeking to confirm whether any NRC officials have obstructed Mr. Yin from performing any other duties. If such further misconduct is confirmed, the evidence will be forwarded promptly to OIA. Evidence of notice to Mr. Vollmer of the whistleblower's loss of confidence in the NRC staff other than Mr. Yin can be found in Mr. Stokes' comments at a July 2, 1984 public meeting. The transcript of the meeting has not yet been released by the NRC staff.)

With respect to the allegations of false and/or misleading statements, the intent of each charge is not to point the finger at particular individuals and assess their personal guilt or innocence as adequate resolution of the allegation. Rather, part of the intent of the allegations is to establish¹⁰ that in each instance the record was deficient with respect to information material for a licensing decision. Specific officials were targeted as responsible for each act of misconduct, in order to comply with the format for OIA interview reports. It may be necessary to insure that the effort to identify responsible parties does not substitute for the underlying point of each allegation -- to challenge the adequacy of the licensing record as presented by the staff. Therefore, the reference to specific individuals in each allegation should be supplemented with the following phrase -- "a person or persons unknown in the NRC staff, or [the identified target]." ¹⁰



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look to us if we could help," he said, but he added that specifics of the arrangement were strictly a commercial matter. He refused to say whether Kadoorie had asked the British government for help.

Meanwhile, a source who has been closely following developments with the joint venture says he is increasingly convinced that time delays could kill the plans for the first unit and provide the basis for Westinghouse to enter the bidding at the invitation of the Chinese to replace Framatome as the reactor vendor. In support of that assessment, he and other sources note there is a large contingent in the Chinese nuclear community that wants a U.S. PWR. If plans for the first unit fall through, then they would have a chance to argue for purchase of a Westinghouse reactor to coincide with the beginning of the next five-year plan in 1986, the sources said. The delays from the Hong Kong side could well tilt the whole Guangdong project to other suppliers, they note, adding that rumors are now circulating that the Chinese have talked to other suppliers about bidding on the turbines for the plant. Asked repeatedly for comment on these and other issues surrounding the joint venture's problems, CL&P officials replied that they are "not prepared to comment on any issues regarding the project."

—Stephanie Cooke, London; Vyvyan Tenorio, Hong Kong

YIN STANDS BY DIABLO AFFIDAVIT BUT BLAMES TONE ON LONG DAY AND DRINKS

A stormy set of NRC meetings on Pacific Gas & Electric's Diablo Canyon culminated July 13 with an apology by NRC engineer Isa Yin for statements he made after a "long, exhausting day and a few drinks." Those statements—including information about Yin's June 26 resignation from a task force reviewing the plant—became part of an affidavit submitted by the intervenor group Government Accountability Project (GAP) to the NRC.

While Yin never denied the content of the affidavit, he said he more or less "spilled" his guts in the late June telephone conversation with GAP's Tom Devine. In an interview before the NRC meeting, he said he was unhappy with how the information had been used by GAP and that he never had any intention of making his resignation newsworthy. "I was hopeful," he said, "that in the meantime something would change, that there would be a conciliation. I was not aware the conversation would be used in such a manner."

The affidavit spells out some of the reasons why Yin said he resigned from the task force that has been reviewing the plant in preparation for a July 30 commission meeting on full-power operation. That statement accuses the director of the task force, Richard Vollmer, of blocking Yin's investigations on many fronts. Yin is quoted as saying that Vollmer only gave him a day and a half to review certain records on the plant's independent design verification program that he had waited two months to see and that he was not allowed to review other records by another review group at the plant on the same subject.

According to the affidavit, "NRR members exhibited their bias by speaking as if their work were done before they had finished their reviews," and for that reason Yin declined to attend a June 29 staff meeting on the plant because he did not want to put up with "another dog and pony show." He complained that he had not been able to follow up on whistleblower allegations, and said he "was always watched" when he was allowed to see records. The affidavit also quotes Yin as saying that the basic problem at Diablo Canyon was that "management had intentionally violated the requirements" and that management was "intentionally screwing quality assurance." According to the affidavit, Yin believed his integrity as an inspector was being threatened by his continuation on the review group.

Tom Devine of GAP said he told Yin GAP would remove parts of the affidavit on the condition that they either were inaccurate or threatened Yin's career. "We gave him full warning, but this is not the way we preferred to do this," he said. Instead, he said, GAP tried for weeks to get NRC officials to let Yin conduct his review and "avoid a scandal." He said the decision was made to release the affidavit after Vollmer told GAP that anyone, except Yin, on the review group could speak with whistleblowers.

In his June 13 statement before the Advisory Committee on Reactor Safeguards (ACRS), Yin emphasized that he had not intended to cast dispersions on the integrity of the NRC staff—that his doubts had more to do with trusting their judgment in this case. He apologized for any "inconvenience" his remarks might have occasioned and said the tone of the affidavit was not professional. While ACRS members welcomed his remarks and joked about having had "similar degraded core" experiences, they tended to agree with ACRS member Glenn Reed's conclusion that Yin's objections to full-power licensing at this stage are those of a perfectionist.

However, in an interview, Yin disagreed. He said the type of review he wanted to conduct at Diablo Canyon was no more thorough or detailed than any other review he would recommend in his own Region III—where his superiors are highly complimentary of his work. He was drafted out of Region III to review allegations concerning Diablo Canyon and his dissent to low-power licensing led to fur-

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ther review of the plant (NW, 12 April, 2). "Region III is a little different," he said. "There aren't that many time restrictions. You are free to make sure the issues are clear. I will be happy to be back in Region III now."

A utility source said he was surprised by Yin's resignation because he did not know how Yin could resign when he never actually formally belonged to the peer review group. He also said he believed Yin had a conflict while participating in the group because he was reviewing his own work. Yin said if there is a conflict it lies with NRC's office of Nuclear Reactor Regulation, which co-managed with Teledyne the plant's Independent Design Verification Program. "What isn't proper," he said, "is that they removed from me my original inspection plan." He said, however, that his problems with the review had less to do with materials being withheld from him than the schedule to get work done.

Much of the July 13 meeting was spent reviewing licensing requirements that sprang from Yin's initial dissent on the plant's low-power operation last spring. It followed a seven-hour July 10 meeting where Yin's concerns were laid out in detail. According to Yin, the fundamental difference between his approach and that of the NRC-appointed review group was that he believed there was a need for a large sample review of the plant's Independent Design Verification Program results on seismic supports. On the other hand; he saw the review group as being "lax" when it came to specifics—with that group deferring to utility presentations. The need to expand the sampling, he said, had to do with the number of errors in calculations that have shown up. With such a small sampling, he said, truly critical problems may not show up.

According to critics of the plant, the review group examined only four hangers of the 15,000 changes that were made by on-site engineers as part of the Quick-Fix program. According to an ACRS presentation made by Yin earlier in the week, about 70% of all large and small bore support/design including calculations had been "quickly fixed" by this group. Yin questioned whether the NRC review group had adequately looked at the possibility such changes were made as part of a conscious utility management decision to bypass quality assurance commitments on design change control.

He also had problems with the review group's qualifications for conducting such reviews and with their failure to follow up on a commitment to meet with an allexer who presented "many rather significant engineering concerns." He objects, too, to his not being able to review recent changes in the Quick-Fix program that utility officials say have restored authority for design changes to an off-site group (Inside NRC, 25 June, 7).

The NRC staff response to Yin's concerns at the meeting was one of a "bottom line"—that line being the assertion that while the process may have been flawed, the physical integrity of the plant is intact. Staffers say they have found no significant differences in as-built and approved calculations. With the Quick-Fix program, said one staffer, it is a case of engineering having caught up with the changes that were made.

In fact, the head of the review group, Richard Vollmer, said that more than 25 meetings and two professional staff years since March have not indicated any need for significant modification. In his view, the seven licensing conditions that resulted from Yin's initial investigation were valid and have now been satisfactorily resolved.

In several of those requirements, there remains major differences between the review group and Yin. Yin, for one, points to a pattern of errors in calculations for small-bore piping supports and suggests that even though the utility has now reviewed all 357 such calculation packages, a further look should be taken at the generic implications of what has been found. He does not, however, object to the 21-package sampling size already reviewed by the NRC group. According to group members, that review indicated no significant problems, and the utility has consented outside of any licensing agreement to further review seismic loads on support structures on all small-bore piping by October.

Other licensing requirements—related to shimming of closely spaced rigid supports and reviewing snubber lockup motions used to evaluate snubber and rigid restraint interactions—also got favorable NRC staff ratings. However, NRC did require the inclusion of a larger number of supports in the review that the utility had originally included. Yin objected earlier in the week to a review group exemption from review of decoupled branch connections designed by the span rule. He indicated the connections were a likely target of overstress in an earthquake and that an exemption in this area was a good tool for avoiding delays in the licensing process.

Yin also had concerns that procedures and documentation of the main steam hot walkdown—including the licensing conditions—failed to describe inspection of spacings provided for piping component seismic movements at operating hot positions. During the main steam walkdown, the staff found with two measures there were deflections outside criteria. However, they were within what was allowed under code.

On another licensing requirement to monitor thermal gaps through the life of the plant, the utili-

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ty has chosen—with NRC staff approval and Yin's approval—to re-analyze and requalify the piping to exclude gaps by the first refueling outage.—*Chrisume Hudgins, Washington*

HODEL TESTIFIES FOR GRAND GULF-2 AS PART OF NUCLEAR INITIATIVE

DOE Secretary Donald Hodel urged the Mississippi Public Service Commission last week to re-certify the need for Mississippi Power & Light's Grand Gulf-2 reactor as part of his promise to work for completion of nuclear plants.

On another front in the same effort, Hodel again urged New York Gov. Mario Cuomo to accept a DOE-sponsored test of Long Island Lighting Co.'s off-site emergency response plan for its Shoreham plant. However, Hodel said in the latest letter to Cuomo, "We do not favor the imposition of federal government authority over any state in matters such as this."

And in a third case, the secretary contacted General Motors Vice Chairman Howard Kehrl to urge that GM give full consideration to the latest proposal to save Consumers Power's troubled Midland plant.

The actions are part of Hodel's effort to follow up on a speech given to the Nuclear Power Assembly May 8 (NW, 10 May, 5) in which he promised that DOE would take several steps "to see to it that safe and economically feasible nuclear plants under construction can be completed." One of the steps Hodel said he would take was to intervene with state regulatory agencies to make sure that the federal perspective on energy policy was represented.

Hodel was officially "invited" to address the Mississippi PSC in the Grand Gulf case after he suggested to the PSC that he would like to testify, DOE officials said. Hodel told the commission July 10 that the Reagan Administration is "strongly committed to the belief that these regulatory decisions appropriately must remain the responsibility of state bodies," but that their decisions should include consideration of the national energy policy perspective.

Nuclear power is "a clean, safe and reliable domestic energy resource" which is saving the country millions of barrels of oil imports per day and billions of dollars, Hodel told the PSC.

The U.S. Energy Information Administration is forecasting a 3.3% average annual increase in electric generation from 1983 to 1995, and the North American Electric Reliability Council is predicting a 2.7% annual growth for the next 10 years, he said. Whichever is closer to the mark and even assuming some of that need would be met by additional conservation, "we will still need every power plant...currently under construction (105,000 Mw) and more to meet demand in 1995," he said.

In addition, Grand Gulf-2 would "increase the diversity of fuels used to generate electricity in this region of the country, in the Southwest Power Pool and in the nation. Displacing what is likely to be increasingly expensive natural gas, and freeing-up that gas for other requirements, including displacing some electric generation requirement and other uses currently being met with oil is desirable. Every action we take to reduce our dependence on oil—particularly imported oil—is clearly in the national interest," Hodel testified.

Hodel made many of the same arguments about the need to replace imported oil in a June 29 letter to Cuomo concerning Shoreham. Shoreham and Niagra Mohawk's Nine Mile Point-2 plants are "vital to our national security because they can help reduce dependence on foreign oil," Hodel said. Operation of Shoreham would also be more economic than nonoperation, he said.

"We share your concern for the health and safety of people—inside and outside the plant," Hodel wrote, but DOE does not believe Shoreham is "a hazard to the people of Long Island." Cuomo has said he does not believe an adequate evacuation plan can be developed for the plant. "We have not suggested that you change your opinions, only that you go along, in the spirit of cooperation, and allow us to join with Fema (the Federal Emergency Management Agency) to run a full-field exercise of a plan, jointly developed, and to then place it before the Nuclear Regulatory Commission for evaluation," Hodel wrote. "We have made our offer and remain open to working with you to test an evacuation plan," he said, but do not favor federal intervention over state objections.

In the case of GM, Hodel was asked by Consumers Power to intervene. GM is one of the largest customers of the Michigan utility and a member of an industry lobby opposing Midland because of the expected increase in utility rates if the plant is completed. Hodel did not ask Kehrl to support any particular position, a DOE official said, but merely asked that GM consider the latest proposal put forth by Consumers Power.—*Frances Seghers, Washington*.

KARLSRUHE BEGINS EXPERIMENTS ON MOLTEN-CORE/CONCRETE REACTION

Large-scale core-melt experiments have begun at the Karlsruhe Nuclear Research Center in a new DM 17-million (\$6.2-million) test facility called Beta (short for Betontiegelschmelzanlage, or concrete crucible melt facility). The goal is to firm up conclusions from earlier small-scale experiments in-

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The staff concludes that in the overall quality control inspectors were properly qualified for the tasks they performed. Accordingly, the staff considers that this issue has been adequately addressed for the purpose of licensing decisions.

~~Design Change Notices and Drawing Controls (Allegation 61 and 102):~~

The staff examined the licensee's and contractors programs for the control and issuance of design change notices and related drawings. The staff determined that the controls applied to these activities were generally adequate. At the time of issuance of SSER 21 the staff had identified a particularly complex design change notice and its related drawings for further analysis. This change notice involved approximately 130 major and minor revisions. At the staff's request the responsible engineering personnel met with the staff and presented documentary evidence that each revision was either completed, superceded, or voided. The licensee also showed the staff the completed start-up test reports for this system which demonstrated that the system operated as intended. ~~Based upon these results and additional programmatic and technical reviews the staff concluded that change notices and related drawings were adequately controlled and implemented.~~ This issue is considered adequately resolved for purposes of licensing decisions.

5.5 Falsification of Vendor Records (Allegation 99):

This allegation came to the NRC staff attention through a local San Francisco television reporter. Staff action was initiated at that time. In addition, the licensee initiated its investigation of this subject after viewing the television report. Since the original allegations were received the staff and the licensee, through their investigations, have received two groups of additional allegations.

The NRC staff response to the allegations includes a combined effort by the Office of Investigations, the Licensee Contractor and Vendor Inspection Program Branch of the Office of Inspection and Enforcement, and Region V. The staff position has been both one of monitoring how the licensee is conducting its investigation for the Diablo Canyon Project and independently reviewing the issues for generic significance (the company has provided products to multiple nuclear reactor projects).

The staff has addressed and closed the original allegation. A review of pertinent records established that the former inspector (who claims to have documented inspections he did not perform) is credited with performing 650 inspections while he was employed at the vendor. Fifteen of the 650 inspections involve safety-related material. These fifteen items were found to be supplied to Diablo Canyon Unit 2 and involve "stock" material (i.e. raw material items which do not involve welding). As of this writing the staff has inspected 14 of the 15 items and found them to conform with requirements. The staff is following up on the last item (plate washers).



Task: Allegation 87

(previously addressed in SSER 21)

ATS No. 83A063

BN No.

Characterization

On site management destroyed those calculations showing certain supports will fail under design conditions, and assigned new staffers to reperform the calculations and show that these supports were adequate. The calculation logs did not refer to the original packages showing support failures.

Related Allegations: 55, 79, 82, 85, 88, 89, 95, 97

Implied Significance to Design, Construction, or Operation

Management pressure to compromise system design safety margin.
Falsification of records to cover up substandard design conditions.

Assessment of Safety Significance

1. Technical Approach to Resolution

- a. Review sample of small bore support design packages with alternate calculations to verify allegations.
- b. Review design logs.
- c. Review PG&E response to allegation.
- d. Document findings.

2. Work Performed and Findings Identified

The staff has reviewed the design calculations provided by the allegor, the relevant Diablo Canyon Project (DCP) design



calculation packages and the site design calculation logs, all of which were provided by the Region V staff.

The allegor has provided ten alternate calculations, which are not included in the design packages of records. Of these two pertain to supports which have been deleted (MP 416 and MP 285). One calculation (MP 345) pertains to the allegation on altered documentation (see Allegation 55). A review of the remaining calculations is summarized as follows:

Calculation Package	Allegor Calculation	Calculation of Record
1 MP-988 Hgr 100-132	Rev. 1 shows base plate failure	Rev. 1 shows baseplate of and bolts acceptable; contains errors; different analyst
2 MP-301 Hgr 2182-93	Rev. 1 shows rigid frequency requirement not satisfied	Rev. 1 refers calculation to Hgr 169-12; different analyst
3 MP-302 Hgr 2182-94	Rev. 1 shows rigid frequency requirement not satisfied	Rev. 1 refers calculation to Hgr 169-12; different analyst
4 MP-268 Hgr 98-82	Rev. 1 shows bolt failure by hand calculation	Rev. 1 shows bolt acceptable based on computer calculation; different analyst
5 MP-357 Hgr 2182-91	Rev. 1 shows rigid frequency requirement not satisfied, based on hand calculation	Rev. 1 shows rigid frequency requirement satisfied, based on computer calculation; different analyst
6 MP-303 2182-64	Rev. 1 shows rigid frequency requirement not satisfied, based on hand calculation	Log indicates referral to calculation MP-997; different analyst
7 MP-277 2182-66	Rev. 1 shows failure in torsion	Log indicates referral to calculation MP-174; different analyst



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The evidence provided by the allegor indicates that in all cases the initial calculation indicates that some design requirement was not satisfied, and which are not included in the design packages of record.

~~However, the staff was not able to verify explicitly that on-site management has actually destroyed these calculations exclusively because~~

~~the staff was shown.~~ The DCP has stated (letter of February 7, 1984) that the only calculations required to be retained are the final calculations which show the qualification of the design, in accordance with ANSI Standard N45.2.9 (1979). The same letter also provided information for the fact that certain calculations were performed by more than one analyst.

The calculation logs have also been reviewed to determine that names and dates match those of the calculation packages. There appear to be two logs, one of which is older and appears to be a subset of the current log. For design package MP-988 these logs show two different analysts for "Rev. 1", although both calculations are shown approved on the same date. A similar instance was found for design package MP-944. The DCP has stated that the older log was an informal log, kept as an aid by the Assistant Onsite Project Engineer, and was never updated. The current log, also termed the record calculation or master index log, is the only log which is required to be kept up to date.

Staff Position

The staff finds that the allegation that management has purposely destroyed documentation is not substantiated. The allegation that



new staffers were assigned to reperform the calculations, and that the master log does not reflect the initial calculations, is verified. The circumstances which form the basis for the allegation need considerable clarification.

Action Required

The staff will conduct further investigations to clarify the conditions under which management is permitted to retain or dispose documentation, and to reassign design personnel.



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U.S. NUCLEAR REGULATORY COMMISSION
Office of Inspector and Auditor

Date of transcription July 26, 1984

Report of Interview

Dr. Mark Hartzman, Senior Mechanical Engineer, Mechanical Engineering Branch, Division of Engineering, Office of Nuclear Reactor Regulation (NRR), upon telephonic interview concerning an allegation that a Governmental decision had been made outside official channels in connection with the publication of NUREG-0675 (SSER 22), provided the following information:

Hartzman confirmed that he was the author of pages A.4-87.1 thru A.4-87.4 of NUREG-0675 (SSER 22). He also had executed an affidavit on March 15, 1984 (Exhibit 1) which at pages 6-9 addressed the same issue, largely verbatim. As background, he said that of the seven "destroyed documents" considered by NRR, six were thought not to be significant, but that one (package #MP988) was reviewed thoroughly. In addition, the site was required to do a reverification of their calculations, the results of which have since been audited by the NRC on a sample basis.

Regarding the effort which resulted in the cited pages, Hartzman noted that NRR found that in many instances apparently two people had worked on the same individual calculations at the site. In some instances one calculation would show a design failing and the other would show the design not failing. In one particular case, the calculation, which showed the support as not failing, was found to be inaccurate and the calculation showing it as failing was missing. However, after extensive review, Hartzman thought the "destruction" to be inadvertent and that it didn't make sense as an intentional act because many other calculations which showed failings were present (were not missing or "destroyed").

Most packages have all the revisions which is not required, as was also mentioned in SSER 22 and his affidavit.

Based on the above, Hartzman concluded in his own mind that purposeful destruction could not be shown and, therefore, the allegation "was not substantiated." Nevertheless, he also stated in SSER 22 that the "staff will conduct further investigations to clarify the conditions under which management is permitted to retain or dispose documentation..." His intent in this statement was to note that he had recommended that OI should look at those conditions.

Investigation Note: When it was pointed out to Hartzman that OI and its Field Offices are not part of "staff", but that OI is a Commission office, Hartzman said that he had thought the opposite and thus did not realize that he should have referred to OI rather than "staff" in that regard. See also the interview of Knight attached hereto as Exhibit 2.

Exhibits:
As Stated

Investigation on July 26, 1984 at Bethesda, Md. File # 84-26

by Ronald M. Smith, Investigator, OIA Date dictated July 26, 1984

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