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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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Before the Nuclear Regulatory Commission

OFFICE OF SECRETARY
DOCKETING & SERVICE
FRANK

In the Matter of)
)
PACIFIC GAS AND ELECTRIC)
COMPANY)
(Diablo Canyon Nuclear Power)
Plant, Units 1 and 2))
_____)

Docket No. 50-275
50-323

(2.206)

SUPPLEMENT TO PETITION PURSUANT TO 10 C.F.R. 2.206

On behalf of Messrs. James L. McDermott and Timothy J. O'Neill, two former employees of the Diablo Canyon nuclear power plant, the Government Accountability Project (GAP) hereby files additional evidence in support of their July 31, 1984 petition, as amended on November 15, 1984. The additional bases for relief include -- (1) affidavits from former plant employees and by an independent expert on computer modeling deficiencies (Exhibits 1-12); corporate documents concerning a quality assurance (QA) breakdown at Cardinal Industrial Products, Inc., which supplies safety-related fasteners to Diablo Canyon (Exhibits 13A-13D); and NRC reports on the Cardinal QA deficiencies (Exhibits 14-A-14D).^{2/}

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1/ As a condition by the affiant in Exhibit 9, that statement is being filed solely with the NRC's Office of Investigations. The affiant provided permission to quote from selected portions but not to file it on the public record. All other affidavits are being placed on the public record with permission of the witnesses, in some cases with the names whited out at their instruction. In all such cases the uncensored statements will be provided to the Office of Investigations after agreement is reached on confidentiality protection.

2/ Because the Nuclear Regulatory Commission staff previously has been bogged down by efforts to count the number of allegations,

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I. CONSTRUCTION QUALITY ASSURANCE BREAKDOWN

Newly-discovered evidence reveals that the fasteners purchased from Cardinal Industrial Products, Inc., are of indeterminate quality. The fasteners consist of hardware such as safety-related nuts and bolting that can be used to connect safety-related systems throughout the plant, as well as for welded studs on the containment liner -- hardware whose otherwise suspect quality already caused the Appeal Board to delay approval of Diablo Canyon's operating license (ALAB-775, 19 NRC 1361,1368 n.21 (June 28, 1984)) and was cited by the U.S. Court of Appeals in its December 31, 1984 decision. (San Luis Obispo Mothers for Peace et al. v. NRC, No. 85-345, slip op. at 62 (D.C. Cir. Dec. 31, 1984)). The bolts in question range in size up to three feet long for heavy duty loads.

A December 21, 1984, Pullman Power Products Discrepancy Report (Exhibit 13A) announced that at PG&E's direction all materials in Pullman's warehouse from Cardinal Industrial Products Corporation were being put on "Hold." The DR also announced that Cardinal had been removed from PG&E's Qualified Suppliers List. A December 21 PG&E letter to Pullman, along with an enclosed December 20 memorandum to J.R. Manning from PG&E Corporate QA Manager Steven Skidmore, further explained what had happened. (Exhibit 13B). In the December 20 memorandum, Skidmore stated that a December 6 and 7 audit of seven PG&E purchase orders for Cardinal fastener materials concluded: "As a result, the quality

Messrs. McDermott and O'Neill will not offer any figures for the total number of issues contained in this disclosure. Consistent with the December 5, 1984 suggestion of NRC attorney Lawrence Chandler, however, counsel requested and helped allegers to organize their affidavits as lists of succinct allegations with further discussion to occur in followup interviews with the staff.

of the fastener materials we have received from Cardinal on the purchase orders listed above is indeterminate at this time." Purchase orders from Pacific Gas and Electric (PG&E) subcontractor Pullman Power Products reveal that Cardinal sold, inter alia, large quantities of Pullman fasteners for safety applications. (Exhibit 10, at 9, and referenced attachment).

Remarkably, the December 20 PG&E memorandum revealed that the utility's audit merely confirmed what the NRC had already announced six months earlier about Cardinal. PG&E listed three deficiencies as significant -- lack of documentation for Cardinal's material suppliers; lack of traceability (heat number) records; and lack of required tensile strength and/or charpy tests. A June 29, 1984, IE Information Notice, however, listed 15 deficiencies in Cardinal's program. (Exhibit 14A). Other violations included, inter alia, use of suppliers not on an approved vendors list, inadequate Nondestructive Examinations ("NDE" such as X-rays) performed by unqualified personnel; lack of heat treatment; failure to specify ASME and 10 C.F.R. Part 21 requirements on purchase orders; failure of Cardinal's QA department to review purchase orders; failure to control welding; and uncontrolled upgrading of stock materials to nuclear grade status. An earlier February 29, 1984 NRC vendor program branch (VPB) report based on a November 1983 inspection, No. 999000840/83-01 (Exhibit 14B) put 41 findings of QA violations in perspective:

It is apparent from the results of this inspection that our inspectors have established that serious deficiencies existed in the implementation of your quality assurance program relative to the manufacture and supply of fastener materials to the nuclear industry. The nature of the inspection findings is such, particularly with respect to use of stock materials for nuclear

orders and certification of materials without assuring performance of required examinations and tests that it raises concerns in regard to the propriety of your actions and both the credibility and adequacy of the quality assurance function.

A followup August 29, 1984 vendor branch report (Exhibit 14C) was restricted to hardware deficiencies with "tangible product significance" or "potential use of stock material for nuclear orders." (Id., at 2). Despite its narrow scope, however, the VPB report confirmed nine repeat violations, including failure to conduct required Charpy impact tests to learn toughness of material; accepting Certified Material Test Reports (CMTR's) without evidence of quality assurance (QA) review by the subcontractor; and upgrading stock material to nuclear grade status without first conducting all required tests. (Id., Appendix B). The NRC found that 9 out of 10 Cardinal overseas subcontractors audited did not meet legal requirements. Four of the 10 foreign firms did not have a QA manual. (Id., at 5-10.)

In examining Cardinal's own training program, the NRC found that its visual inspectors were taught with materials designed "for automotive applications" from the Society of Automotive Engineers, rather than from the nuclear industry. Even more to the point, "specific procedures detailing how to perform an inspection and what constitutes a rejectable indication have not been developed." (Id., at 17).

Unfortunately, through February 1985 neither the IE Information Notice, the vendor branch report, nor PG&E's own public filings have mentioned Diablo Canyon as a plant affected by Cardinal's QA breakdown. The unknown quality of fasteners on safety systems

strikes at the heart of the plant's structural integrity. Under law, PG&E should have reported the condition to the NRC prior to critical licensing decisions. Indeed, due to the confirmed safety significance of the A-307b bolts alone, PG&E was required to report the potential violations within 48 hours. 10 C.F.R. Part 21. As NRC Inspection and Enforcement Director Richard de Young explained in a May 4, 1984, letter to Cardinal (Exhibit 14D): "Components manufactured by [Cardinal] are used in safety-related systems. Their failure to perform to codes and standards could impact the operability of such systems under accident conditions and, therefore, could have an adverse impact on public health and safety."

The secret QA breakdown is only one problem. Of greater import is a secret response which fails to address the problems that have been exposed. A review of the documentation reveals the following holes in PG&E/Pullman's corrective action plan:

1. The response only applies to Unit 2. Presumably PG&E and Pullman decided that it does not matter if the bolts are indeterminate in Unit 1, which is already operating. (Exhibit 10, at 9; Exhibit 13A).

2. The Unit 2 corrective action only applies to fasteners that have not been installed. Bolting already in the plant is being ignored. (Exhibit 10, at 8; Exhibit 13B). The loophole is particularly significant, because Diablo has been receiving Cardinal fasteners since at least 1980. (Exhibit 10, at 9 and referenced attachment). Indeed, Mr. Hudson's affidavit quotes from a February 27, 1981, Pullman management memorandum that "per request from the Diablo Canyon Project, please keep Cardinal Bolt current on the AVL. Diablo will continue to use very heavily over the next

few years." (Exhibit 4, at 4) (emphasis supplied).

5. Although the fasteners supposedly are on "Hold," they are being installed anyway -- with Hold tags. In other words, they are being installed before their quality is verified. The "Hold" tags are little more than identification devices. (Exhibit 4, at 2-3; Exhibit 13B).

6. The PG&E/Pullman corrective action plan proposes a third party reinspection. But the scope of the reinspection effort is limited to a sample of current stock from a limited number of suppliers (not necessarily all those whose materials went to Diablo) at Cardinal's warehouse. Based on this reinspection effort, it is impossible to draw conclusions about the quality of fasteners sent to Diablo Canyon years ago. (Exhibit 13C, Action Plan, at 1).

In short, the only appropriate corrective action is to verify through reinspection what is installed at Diablo. Clearly, the currently proposed Diablo Canyon "corrective action" plan is a formula to defend the status quo.

A natural question arises why PG&E and Pullman missed the Cardinal violations for so many years. Mr. Hudson, who was lead auditor in a 1981 review of Cardinal, provided some insight: loopholes in the audit plans mirrored the violations finally uncovered by the Vendor Inspection Branch.

The matching violations include requirements for heat treatment Nondestructive Examinations (NDE), and procedure controls to guide QA work. (Exhibit 4, at 7-8). Even worse, in some cases the deficiencies may be generic to all Pullman vendor audits.

Pullman audit checklists routinely skipped NDE qualifications and the vendor's own internal audit system. (Id.)

Construction QA breakdowns inherently have consequences in the hardware. A new witness described the extent of the defects in 1982 at Diablo as follows:

For an extended period, nearly every day I had to go into the field to check the location of hardware before drafting the drawing, because the requested measurements were physically impossible During my field reviews I routinely found instances of hardware deficiencies, such as loose U-bolts and missing nuts.

(Exhibit 3, at 2).

II. DESIGN QUALITY ASSURANCE BREAKDOWN

Three new whistleblowers supplied evidence of design quality assurance violations. Their combined disclosures raise severe doubts about the reliability of the correction action program on which the license is based. The significance of their contribution can be placed in perspective through the statement of one high ranking engineer who described himself as "one of the persons [NRC inspector Isa Yin] would have sought to question had he been allowed to complete his investigation. I was in a position to be directly aware of the engineering practices in question." (Exhibit 1, at 1-2). Illustrative examples of their charges are presented below, again drawn directly from relevant affidavits.

A. Inaccurate drawings.

1. "During my participation in an early 1982 PG&E-ordered field audit for the accuracy of a random sample of Unit 1 drawings dating back to 1972, I found that approximately 85% of the drawings were inaccurate." (Exhibit 3, at 3. See also, supra, at 7).

1. "Management responded by refusing to expand the sample and terminated the program, although deficiencies were corrected that I had identified." (Id.).

3. "The errors I found routinely had occurred in drawings which previously had been checked and approved, raising questions in general about both the accuracy of design quality assurance and the reliability of later engineering reviews based on these drawings during the seismic design review." (Id., at 3-4).^{4/}

^{4/} The witness also confirmed earlier allegations on inadequate qualifications, training, and inconsistent weld symbols. (Id., at 4). The NRC staff has rejected the validity of all these charges. The continuing trend of whistleblowers who reject the staff's factual conclusions raises new concerns about the reliability of the staff's findings.

B. Computer errors.

4. "In using the STRUDL computer program used for Diablo Canyon there was much confusion regarding the orientation of the principal axis of beam elements. This confusion resulted in the beam elements on occasion being oriented 90 degrees from where they were oriented in fact." (Id.)

5. "In using the STRUDL computer program used for Diablo Canyon the use of defaults for the unbraced length of beam members on occasion resulted in an over estimation of the allowable loads. This unconservative error could overestimate the allowable loads by up to 400%." (Id.)

6. "Due to insufficiently precise modeling in the use of the STRUDL computer program used for Diablo Canyon, stresses on baseplates may be underestimated by 50% or more because the location at which the stresses were calculated differed from the location of maximum stress." (Id.)

7. "Despite knowledge of inaccuracies in the STRUDL computer program for Diablo Canyon, management at off-site consultant(s) told employees to continue using the program as it was until instructed otherwise by Diablo Canyon Project Organization (DCPO), which in some cases meant that the errors were repeated indefinitely." (Id.)

8. "Due to an error in the H-9 design guide used to calculate allowable stresses, pipe supports throughout Diablo Canyon may be underdesigned to only withstand 89% of the stresses from a Hosgri earthquake, which could lead to mass failures if such an earthquake occurred." (Id. at 4).

9. "Off-site consultant(s) worked to uncontrolled documents on a generic basis, because Bechtel and PG&E sent them documents without letters of transmittal to assure that the documents were current when sent and were regularly updated." (Id.)

In addition to these new threats, the previous charges of flaws in Bechtel computer programs ^{5/} were reinforced in a March 5, 1985 affidavit by Arthur Jackson, a Registered Professional Engineer who has developed and published articles on computer-based design programs. Mr. Jackson's affidavit draws the following conclusions:

Based on my review, I believe that major errors in the FLUD computer program -- used at Diablo Canyon as the basis for designing the Heating, Ventilating and Air Conditioning (HVAC) and Instrumentation systems -- may lead to predictions up to 100% inaccurate of what those systems must withstand in the event of a high energy piping break. The inaccuracies may have caused underdesigning that could significantly increase the chances of damage at the facility, or lead to false alarms. . . . In my professional opinion, it is important that an effort be made to verify designs based on FLUD's calculation. Until that is done, the potential for possibly serious damage is significant.

(Exhibit 7, at 1-2, and 8).

10. "The engineering calculations of off-site consultant(s) contained an unacceptable high rate of mistakes, including a high rate of significant errors and some error in all but a few of the packages." (Exhibit 1, at 3-4).

11. "Due to the use of the wrong formula, engineering calculations for Diablo Canyon may have underestimated the stresses in welds attaching baseplates to structural steel channels and angles where torsional or twisting force was applied, to the extent that hangers which passed should have failed." (Exhibit 1, at 3).

^{5/} See November 15, 1984 Amended Petition of James McDermott and Timothy O'Neill, attachment 9).

In some cases, witnesses are submitting sworn affidavits, because the staff failed to place significant portions of the disclosure on the public file.

12. "The staff failed to include my allegations on the frequency of errors, which is significant since they occurred on such a widespread basis that nearly all pipe supports which I had reviewed contained certain of the engineering mistakes listed in the December 20 NRC letter." (Exhibit 5, at 2).

13. "The staff failed to include my allegations on the significance of the errors, which is important since the mistakes described in issues 1 and 2 alone of the NRC December 20 letter each could cause up to 10% of small bore pipe supports to fail which previously had passed and involved errors such as under-estimating the loads up to 1400%." (Id.)

14. "When describing my allegation on limitations in the procedure to check for mistakes in preliminary calculations, the staff failed to include the effect of the limitations -- the required worst case scenario was only checked in about 10% of the cases." (Id.)

III. BREAKDOWN IN CORPORATE CHARACTER AND COMPETENCE

New whistleblower charges of retaliation (Exhibit 3, at 3; and Exhibit 5, at 2-3) and intentional engineering violations (id.; Exhibit 1, at 3) suggest that the staff's attempt to dismiss these problems as isolated was premature. Equally distressing are the continuing allegations of false statements -- both with respect to plant records and denials of whistleblower allegations.

1. "PGandE's response to allegation V-29 -- denying discrimination on the job against aggressive inspectors -- is false, since my supervisors personally told me that I was denied overtime because I would just use it to reject welds." (Exhibit 2, at 4).

2. "PGandE's statement in response to allegation V-28B -- that the bolting rework program was covered by QA Instruction #64 -- is false, misleading, a joke or all three, since despite my frequent requests, no one from QA Manager Harold Karner down to my supervisor even produced such an instruction during my experience working in the program." (Id., at 3).

3. "PGandE falsely stated that the American Institute of Steel Construction (AISC) has endorsed the analysis of Australian papers that appear to support the use of structural steel "angles", since according to an AISC representative the Institute merely presented the papers and the AISC Specifications Committee has not met, discussed nor approved the use of the Australian papers." (Exhibit 11, at 1).

4. "PGandE falsely stated that the analysis in the Australian papers on structural steel angles is applicable for conditions at Diablo Canyon; since the Australian analysis is based on "pure bending," which significantly underestimated the loads on the

steel, compared to the compression and tension combined with bending at Diablo Canyon." (Id., at 2).

5. "PGandE's response in DCL 239 to allegations JIR 76 -- in which the utility defended its failure to notice that I had signed the names Donald Duck, Mickey Mouse, Roy Rogers and Gene Autry as the inspectors by claiming that the drawings were merely "payment sepias" for billing purposes -- was false. I was talking about final, as-built drawings which controlled the work, were perceived as quality control records by management at the time and had to be signed off before the work could proceed." (Exhibit 6, at 1-2).

6. "I can testify from personal experience that the drawings I had drafted subsequently were falsified by altering them without any documentation or signature, particularly with respect to weld symbols." (Exhibit 3, at 4).

7. "Management failed to investigate who had changed my drawings without documentation on each occasion that it occurred." (Id.)

IV. NRC QUALITY ASSURANCE BREAKDOWN

Messrs. McDermott and O'Neill are frustrated that since last November 15 the staff's response to allegations to their submissions has been empty promises to do better, without any meaningful followthrough. Posturing appears to have become a substitute for good faith inspections. Unfortunately, posturing will not affect the safety of Diablo Canyon.

To illustrate, at a December 5 meeting, counsel agreed to let the staff confirm at followup meetings that it properly understood the alleger's charges. This would have expedited the fact-finding process, by waiving the requirement in the Diablo Canyon Allegation Management Program (DCAMP) for a letter of confirmation. Counsel informed witnesses of the upcoming staff interveiws and they began preparing. In a December 20, 1984 letter (Exhibit 15), then-Licensing Division Deputy Director Frank Miraglia urged the allegers to identify new concerns "as soon as possible." Counsel agreed to cooperate fully and to recommend that witnesses meet immediately with the staff, or at its convenience.

Apparently, NRR was bluffing. Instead of scheduling interviews. NRR requested that the allegers prepare a formal list of issues. See January 11, 1985, letter from Harold Denton to Thomas Devine, enclosed as Exhibit 16. Apparently, this was a precondition for interviews, since none have yet occurred with NRR representatives. Counsel repeatedly requested that the factfinding process begin, and warned that time was running out. NRR representatives said they understood and then failed to schedule interviews. On February 6, Mr. Miraglia again offered to have interviews. (Exhibit 17). Again, the words have not been

matched by deeds.

Similarly, at the December 5 meeting counsel expressed confidence in the DCAMP program on paper and urged that it be practiced in the field. If strict compliance with DCAMP were too burdensome, counsel suggested alternatives to thoroughly resolve allegations in an expedited, more informal fashion. As a result, it was a surprise to receive Mr. Miraglia's February 6 letter rejecting modifications of the DCAMP program.

In the February 6 letter, the staff emphasized the need for a "cooperative spirit." The Diablo Canyon whistleblowers will cooperate with a lawful inspection -- not with a stall.

A. Good faith compliance with DCAMP.

Messrs. McDermott and O'Neill are frustrated at the staff's defense of DCAMP, because the whistleblowers seek the same goal. In their experience, the staff routinely has failed to comply with DCAMP requirements. Messrs. McDermott and O'Neill's disillusionment is not unique. Five other affiants in the DCAMP program revealed similar basic loopholes in its implementation. As one witness stated,

The NRC failed to provide me with a list of my concerns as they understood them, for my review for accuracy and completeness. The inspector led the interview and asked basically non-substantive questions as he went over the transcript. The list that the NRC was to provide me as to their understanding of my concerns is supposed to be the first step in the NRC's Diablo Canyon Allegation Management Program.

(Exhibit 9, at 4). (See Exhibits 2, 5, and 8-12, generally).

Even when the staff literally complied with DCAMP, the proceedings were not conducted in good faith. The staff

was unprepared, refused to answer questions, refused to receive evidence, refused to obtain documentation, and summarily refused requests by allegers for hardware tours. Similarly, the Region V staff summarily rejected suggestions that it look at the hardware when the documentation suggested specific problems.

(Id.). The curt, hostile refusal to look at hardware was inconsistent with Mr. Miraglia's request for information on a plant tour. (Exhibit 15, supra). Several examples illustrate why the affiants believe the NRC Region V staff was merely going through the motions at a series of meetings in January.

1. "The NRC staff wasted my time by calling me to a closeout meeting on allegation #279 -- concerning the removal of a hold tag -- by "explaining" its reason for rejecting the charge through reading from an Inspection and Enforcement Report that already had been published and then refusing to answer substantive questions about holes and ambiguities in the inspection report." (Exhibit 8, at 3).

2. "The staff mischaracterized the underlying quality dispute behind the retaliation charge in allegation #280 by saying that I had challenged the inaccessibility of a weld; since I had not raised that issue at all but rather had challenged unacceptable surface preparation through reliance on a totally inadequate tool called a peanut grinder, and failure to use the recommended surface preparation methods listed in the procedure." (Id., at 3-4).

3. "To date the staff has refused to obtain any calculations for me to confirm in private the deficiencies that I alleged in our meeting, although Mr. Devine informs me that in the past the staff has obtained and reviewed calculations with allegers, and I had

informed the staff that because the errors were routine I could readily pinpoint them on any random sample of calculations." (Exhibit 5, at 4-5).

4. "I protest that the NRC only interviewed me with respect to isolated examples of my allegations and in particular did not allow discussion or even presentation of documentation of the full scope of the Paramount (vendor) QA violations which were numerous enough as to dictate the existence of a well-defined generic (common) deficiency, especially the lack of contract-required full penetration welds." (Exhibit 12, at 4).

5. "The staff improperly wasted everybody's time at the 'follow-up' interview, which the NRC requested on January 19, 1984. It was painfully obvious that the inspector was wholly unprepared to conduct any type of 'follow-up' meeting, as he was completely unfamiliar with the issues and their significance." (Exhibit 9, at 3).

B. Violations of confidentiality.

Certain staff misconduct goes beyond ineffectiveness. When the staff breaches a confidentiality agreement with a witness, it creates a threat to the witness' livelihood, safety and peace of mind. The experience of one witness who wanted to remain anonymous is educational. He was willing to risk revealing his identity to participate in exposing defective hardware on a plant tour. Due to the NRC staff, his anonymity was lost -- unnecessarily and for nothing.

6. "NRC Region V staff destroyed my confidentiality prior to an April 1984 plant tour by only requesting the Deficient Condition Notice (DCN) logs for myself and another anonymous

allegor, which identified us by our work, in preparation for the event." (Exhibit 2, at 1).

7. "On the morning of the April 1984 NRC plant tour of Diablo Canyon, immediately after my identity had been effectively revealed, my house was the target of an unprecedented symbolic attack -- a 12 inch cut-off saw wheel was stuck in the lawn outside as an apparent warning." (Id., at 1-2).

8. "After breaking our confidentiality agreement, the NRC made this sacrifice all for nothing by accepting an irrelevant excuse by PGandE to remove me from the plant tour before it started; at the time, I had not filed any written allegations." (Id. at 2).

9. "If the NRC had permitted me to attend the plant tour, I could have pointed them to examples of oversized bolt holes on safety-related systems, covered only by washers and not by fish-plates as required by code." (Id.)

C. Inconsistent standards.

It continues to become clear that the staff has enforced a relaxed version of the Atomic Energy Act at Diablo Canyon, compared to the rest of the country. A January 8, 1985, NRC Technical Review Team (TRT) report for Comanche Peak (Exhibit 18) provides the latest evidence of discrimination. The TRT review of QA issues material to the operating license is like a mirror image of the Diablo Canyon QA allegations. At Comanche Peak, however, the staff addressed the issues. At Diablo Canyon the staff screened them out as too insignificant to merit any inspection.

D. Case study -- A-307b bolts used as welded studs.

Since January 1984 the staff repeatedly rejected whistleblower challenges to inadequately controlled material quality and

uncontrolled installation of A-307b bolts used as welded studs on the containment liner, among other critical functions. The staff has had to shift its reasoning as previous attempts to resolve the issue were discredited. These welded studs fashioned from bolts have come to symbolize the potential hardware risks from a quality assurance breakdown. (Exhibit 10, at 2, 13).

In IE Report 84-42 and 84-31, Region V inspector Dennis Kirsch again attempted to dispose of this problem. The attempt also symbolizes the QA breakdown within the NRC staff. Mr. Kirsch's technical rationale (Rep. 84-42, at 14-15) is wrong according to the American Society of Mechanical Engineers (ASME) "case interpretation" which ruled exactly the opposite of Mr. Kirsch on the same issue. This leaves the staff's decision legally indefensible, since last year it relied on what turned out to be an irrelevant ASME ruling to reject the challenge to A-307's. (Exhibit 10, at 10, 13).

Mr. Kirsch also relied on Certified Material Test Reports to support his decision. (Rep. 84-42, at 14-15). The credibility of his review remains questionable, since he has failed to provide any specific references or findings for his research. Informally, he also admitted that some purchase orders could not be matched to a CMTR, but failed to include that finding in the IE Report. (Id., at 11).

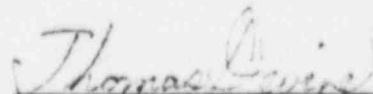
Decisively, however, Mr. Kirsch's review of CMTR's would be worthless with respect to A-307b bolts supplied by Cardinal. Among the key vendor program branch findings were Cardinal's inability to provide backup records for CMTR's; and instances where stock materials were upgraded to nuclear safety status without basis.

(Exhibit 14B, at 2). Inexplicably, Mr. Kirsch's analysis of A-307 bolts failed to consider the consequences of the Cardinal QA breakdown.

This development not only revives a serious safety issue but raises concerns about the staff's ability to apply significant generic deficiencies to specific plants. It appears that Region V remained ignorant of the Cardinal QA breakdown from November 1983 through February 1985. Such an oversight is inexcusable, in light of Pullman's heavy reliance on Cardinal and the licensing decisions that may have been affected. In this instance, the staff's exercise of discretion has been incompetent, at best.

The result of the combined vendor/contractor/licensee/NRC quality assurance breakdown is clear: No one knows if Cardinal's bolting is reliable and no one yet knows how many other suppliers have compromised Diablo, because the licensee never checked properly, and the NRC didn't notice.

Respectfully submitted,



Thomas Devine
Counsel for Messrs. McDermott
and O'Neill

Dated: March 14, 1985

ATTACHMENTS LIST

Exhibit 1	Affidavit of Anonymous Person 2/6/1985
Exhibit 2	Affidavit of Phillip Haffey 1/22/1985
Exhibit 3	Affidavit of Anonymous Person 2/4/1985
Exhibit 4	Affidavit of Harold O. Hudson 2/23/1985
Exhibit 5	Affidavit of Anonymous Person 2/24/1985
Exhibit 6	Affidavit of Larry Kinney 3/4/1985
Exhibit 7	Affidavit of Arthur Jackson 3/5/1985
Exhibit 8	Affidavit of James L. McDermott II 1/21/1985
Exhibit 10	Affidavit of Timothy J. O'Neill 2/22/85
Exhibit 11	Affidavit of Charles C. Stokes 1/18/1985
Exhibit 12	Affidavit of Michael C. Thompson 1/23/1985
Exhibit 13A	Pullman Power Products Discrepancy Report 9173 (December 21, 1984).
Exhibit 13B	December 21, 1984 letter from R.R. Lieber and R.A. Hobgood, PG&E, to P. Steiger, Pullman Power Products, with attachment (December 21, 1984).
Exhibit 13C	August 9, 1984 letter form Dennis Fielder, Cardinal Industrial Products, Inc. to Ellis Merschoff, U.S. Nuclear Regulatory Commission.
Exhibit 13D	Cardinal Industrial Products Action Plan Interim Report #1 (January 21, 1985).
Exhibit 14A	U.S. Nuclear Regulatory Commission, IE Information Notice 84-52 (June 29, 1984)

Exhibit 14B U.S. Nuclear Regulatory Commission,
Vendor Program Branch Docket No.
999000840/83-01 (February 29, 1984).

Exhibit 14C U.S. Nuclear Regulatory Commission,
Vendor Program Branch Docket No.
999000840/84-01 (Aug. 29, 1984).

Exhibit 14D May 4, 1984 letter from Richard de
Young, U.S. Nuclear Regulatory
Commission to Dennis Fielder, Cardinal
Industrial Products.

Exhibit 15 Dec. 20, 1984 letter from Frank
Miraglia, U.S. Nuclear Regulatory
Commission, to Thomas Devine, Government
Accountability Project (Dec. 20, 1984).

Exhibit 16 January 11, 1985 letter from Harold
Denton, U.S. Nuclear Regulatory Commis-
sion, to Thomas Devine.

Exhibit 17 February 6, 1985 letter from Frank
Miraglia to Thomas Devine.

Exhibit 18 January 18, 1985 letter from Darrell
Eisenhut, U.S. Nuclear Regulatory
Commission, to M.D. Spence, Texas
Utilities Generating Co., Docket No.
50-445/446 with enclosure (January
8, 1985).