

GOVERNMENT ACCOUNTABILITY PROJECT

Institute for Policy Studies

1901 Que Street, N.W., Washington, D.C. 20009

(202) 234-93

SECRET

July 30, 1984  
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Nunzio J. Palladino, Chairman  
Thomas Roberts, Commissioner  
James Asselstine, Commissioner  
Frederick Bernthal, Commissioner  
Lando Zech, Commissioner  
U.S. Nuclear Regulatory Commission  
1717 H Street, N.W.  
Washington, D.C. 20555

Attachment to GAP

314.08.08

Ref: GAP ltr. to NRC, McDermott Aff.

Dated: July 30, 1984

Page 1 of 12

Re: Diablo Canyon Plant, Units 1 & 2  
Docket Nos. 50-275 and 50-323

Dear Commissioners:

Enclosed is Mr. McDermott's affidavit, as promised in  
my July 29, 1984 submission. Tomorrow a supporting brief  
will be sent to the Commission, along with Mr. O'Neill's  
rebuttal affidavit. (2.206

Respectfully submitted,

*Thomas Devine*

Thomas Devine

Counsel for Messrs.

O'Neill and McDermott

~~8408010235~~ 50pp







A F F I D A V I T

My name is James L. McDermott. I am submitting this affidavit freely and voluntarily to Mr. Thomas Devine, who has identified himself to me as the legal director of the Government Accountability Project and who serves as my attorney for disclosures to the Nuclear Regulatory Commission. I have instructed Mr. Devine to add my name to the petition submitted by Mr. Timothy O'Neill on July 27, 1984 with Mr. O'Neill's permission, which he has supplied. This affidavit is in support of the joint petition. My own case provides a clear illustration of the need both for reinspections and systematic retraining of all personnel at Diablo Canyon.

On Saturday, July 28, I was laid off from my job as a welder for Pullman Power Products at Diablo Canyon, two days after I refused to sign three statements certifying my participation in retraining programs on various matters. I refused because I would have been engaging in a false statement if I had signed. In one case, I was asked along with others to sign a blank form *IMK CERTIFYING MY PARTICIPATION IN AN UNIDENTIFIED TRAINING SESSION THAT HAD NEVER OCCURRED* To show how badly things have deteriorated, 15 other employees signed the form.

Since January 1984 I have been a witness in the ongoing Nuclear Regulatory Commission (NRC) investigation at Diablo Canyon. During that time I have submitted five affidavits and







met with the NRC on three occasions, including twice with the Office of Investigations (OI). Earlier this month I settled a Department of Labor lawsuit which had charged retaliation in an earlier layoff. I was a confidential witness, until the NRC technical staff blew my cover by turning over a copy of my affidavit to Pacific Gas and Electric (PG&E). Although my name was whited-out, the issues in my statement were traceable back to me since I had challenged the same violations on-site. PG&E promptly published my name in a licensing brief. With my cover already blown, there was no reason to hold back and my wife began serving as a public spokesperson for the Consumers in Defense of Energy Safety (CODES). PG&E claimed that my continued employment at Diablo Canyon helped rebut charges of harassment for NRC whistleblowers. PG&E's licensing brief is enclosed as Exhibit 1.

The events surrounding my layoff began last Thursday, July 25, when four handouts were distributed to personnel in the shop. Each handout was for retraining through the "Steps to Prevent Recurrence" (STPR) corrective action program. We were all supposed to sign that we had been retrained on each problem, after studying each handout. I signed one of the forms but I had to refuse to sign three others. The other three STPR forms involved problems with -- 1) flowmeters to control the release of gas in Gas Tungsten Arc Welding (GTAW); 2) falsified traceability records for certain plates; and 3) cutting of crushable lumps.





11 22 33 44 55 66 77 88 99 00 11 22 33 44 55 66 77 88 99 00



gmc

The STPR on flowmeters contained the crudest falsification.

It is enclosed as Exhibit 2. In essence we were asked to sign a form certifying our attendance in a retraining program that was never conducted. The form was blank<sup>gmc</sup> for all the spaces describing the retraining, including "Nature of Instruction", "Date", "Time", and "Instructor". Further, our signatures certified that we had participated in discussions and reviewed additional information. The discussions never occurred and the referenced information was not included in the handout. Fifteen people signed anyway. I talked with several people about why they signed a blank check. As one explained, he didn't want to have trouble.

This phoney retraining program concerned a generic deficiency highly significant to plant safety. The flow of gas keeps out undesirable atmosphere during the welding process. Too much or too little gas can lead to unacceptable quality such as oxidation, <sup>gmc</sup>porosity<sup>gmc</sup>, cracking, embrittlement and excessive cost. The fraudulent retraining program means that the shoddy welding probably will continue for the thirteenth year in a row.

The STPR on traceability of plates concerned falsified purchase order identification records. It is enclosed as Exhibit 3. I could not sign the form, because the referenced procedures and quality assurance (QA) records were not included.

I had raised this same issue near the end of June with the production foreman. He said that maybe I should remove the phoney Purchase Orders <sup>gmc</sup>NUMBER FROM THE PLATE<sup>gmc</sup>. Before that happened, however, a QC

Am.







inspector identified the problem and wrote a Deficient Condition Notice (DCN). The inspector suffered severe harassment for writing the report, including a public dressing down from the craft superintendent and construction workers who shook their fists in his face. Based on his experience, I believe that my initiative in raising the same issue to a foreman helped lead to my layoff.

The third STPR concerned the improper cutting of crushable bumpers, which are thin-gauged tubing welded to resemble square honeycombs. They are used to absorb the impact in the event of a ruptured pipe. The STPR is enclosed as Exhibit 4. I could not sign this form, because the referenced procedure was not attached.

The training continues to be inadequate on a generic basis. For example, the recent "training" on harassment basically was to pass out a memo saying that we could be disciplined up to termination if we harassed QC. The memo itself was a signal that management was pulling its punches: harassment would not necessarily cost a worker his job if he were caught. There were not any classes, or even discussions about a problem that has been getting out of control.

In other cases the handouts were inadequate as retraining documents, because the craft workers had never been trained sufficiently the first time to understand the terms in the QA reports. I know, because various welders asked me what the documents meant. They came, because I was a former QC inspector.







On Thursday, July 26th, after reviewing the STPR handouts, I sought out the QC inspector. I told him this was bull, because we would be signing for documents and events that were not there. He agreed and said he would notify the Resident Inspector.

At the end of the shift, the foreman asked me to sign the STPR forms. I refused on three out of four. He asked me to point out to him what was the matter, which I did. He said he saw my point and agreed with me that a good training program should have begun 13 years ago.

Despite his agreement with my criticisms, the foreman said that the superintendent would still want me to sign. He also said that maybe we should fill in the blanks on the training form for flowmeters. I said maybe we shouldn't. I believe that raising this problem of false statements internally, refusing to participate, and refusing to cooperate with a coverup contributed to my layoff.

On Friday the QC inspector told the NRC's Resident Inspector, Mavin Mendonca, of the STPR problems. *JMC*

*JMC*  
On Friday Tim O'Neill also filed his petition and held a press conference. Tim is a friend of mine, which was well-known

*W*







on-site. We ate lunch together regularly, where in plain view I often reviewed or helped him to prepare reports of QA violations. We ate lunch together on Tuesday, July 24, the day Tim resigned. I believe that my layoff the day after his press conference in part was further retaliation due to guilt by association.

On Saturday, July 28 I was laid off, along with one other welder out of around 15 in our shop. The other employee was a traveler -- a member from another local outside of this union's jurisdiction, with a travel card. Although it is not a formal rule, travelers usually are laid-off first. In fact, another brother said to me that he should of been laid off because he was a travelcard holder and that I was a local member.

I believe that my layoff was retaliatory for three reasons: 1) The time lag was two days after I refused to sign three false statements and one day after my friend Tim went public on a series of QA violations including some which I had openly helped him to prepare at the job site. 2) Over half the rest of the crew were travelers. 3) Two of the travelers were welders hired about two weeks earlier. They had only passed the basic gate, or entry, test. By contrast, I had been certified to unlimited thickness after passing the heavy wall test. In fact, I had just trained these two welders, to replace me as it turned out.

When I was laid off the foreman said that it was not just his decision; that management also was involved. He denied that





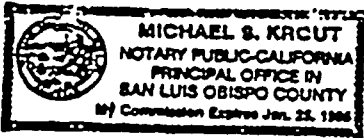
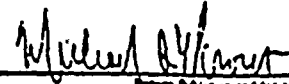


there were any "politics" involved, however. A Bechtel supervisor told me that he was sorry to see me go, because I never missed anytime, was always working and was better qualified as a welder than those who kept their jobs. He said that didn't make sense from an economic standpoint. He added that he had made the same point to Pullman and Bechtel management, without any success.

I am familiar with the conclusions in the 1977 Nuclear Services Corporation (NSC) audit about a quality assurance breakdown. I can state without question that it is continuing without letup. If there has been corrective action, the effects have been invisible. The QA breakdown continues, because those of us who try to uphold the NRC laws are either ignored; harassed until they resign as with Tim; or laid-off like myself. I am joining Tim's petition, because the NRC must crack down to restore respect for its rules at Diablo Canyon. If the Commission licenses the plant instead, it will be a clear message that the Atomic Energy Act no longer is worth the paper it is written on.

I have read the above 7 page affidavit, and it is true, accurate and complete to the best of my knowledge and belief.

  
James L. McDermott

STATE OF <u>California</u>	
COUNTY OF <u>San Luis Obispo</u>	
ON <u>30 July</u> 19 <u>84</u>	
before me, the undersigned, a Notary Public in and for said State, personally appeared <u>James L. McDermott</u>	
<u>I made him my satisfactory evidence</u>	
to be the person whose name <u>McDermott</u> is subscribed to the within instrument, and acknowledged to me that he executed the same.	
WITNESS my hand and official seal.	
 MICHAEL S. KRCUT NOTARY PUBLIC-CALIFORNIA PRINCIPAL OFFICE IN SAN LUIS OBISPO COUNTY My Commission Expires Jan. 25, 1986	 Notary Public in and for said State.

ADMINISTRATIVE—County—Notaries Form 604—Rev. 3-84







INTEROFFICE CORRESPONDENCE

Attachment to GAP  
314.08.08  
Reference: STPR on DR 5946  
Dated: July 21, 1984  
Page 9 of 12

DATE July 21, 1984  
TO PPP Superintendents  
FROM Paul Mokry  
SUBJECT Craft STPR's on DR 5946

FOR INFORMATION  
ONLY

Discuss with your Craft about flow meters and their proper use.  
Cover the information contained on the attached sheet.

After this information has been discussed, the Superintendents  
are to sign the memo and attached training sheet and return to Carollee  
at Trailer 61 or return to Tim Roberts box in the Main Office. Please  
do not return with the daily time sheets as this will cause unnecessary  
delay in the processing of the DCN's and DR's.

*Paul Mokry*  
Paul Mokry,  
General Construction Superintendent

M. Andrews	B. Madron
n. Buhanan	.H. Reed
J. Callahan	E. Jorden
J. Rowley	C. Bolinger
C. Borra	B. Parmley
R. Martin	
P. Impastato	
L. Longo	
S. Tucker	
T. Justen	
J. Williams	

*\* B. J. Parmley*







Attachment to GAP

314.08.08

Ref: STPR on DR 5946 dated July 21, 1984

ISS NO. Page 10 of 12

UNIT NO. 1

CODE NO. 1

Pacific Gas & Electric

SPEC. NO: 8711

DATE 6/25/84 Regulator 7-17-P4

Gaslo Convent

JOB NO. 7177

INSPECTOR: [Signature]

EXPLANATION OF DISCREPANCY (Continued from page 9)

- C. Victor HRF 2325: This is a similar flowmeter with a built-in pressure regulator.
- D. Victor AF 250: This is a regulator with the low pressure gauge graduated in CFH. This device is not a true flowmeter.

All of the flowmeters will accurately measure gas flow rates provided proper inlet pressures are used. The AF 250 will be accurate if the outflow of gas is not restricted.

- 2. L-32 and Victor flowmeters were being used with the AF 250 regulator. Neither device will read accurately in this instance. It is impossible to determine the inlet pressure to the L-32 or Victor flowmeter. While the flowmeter will restrict the gas flow from the AF 250, ESD-219 does not permit this combination.
- 3. An L-32 (50 psi inlet type) was being used with an inlet pressure of 15 psi. This is a violation of ESD-219. This same flowmeter was set at 15 CFH, a violation of the WPS. The WPS requires 20 CFH.
- 4. Regulators were not calibrated as is required in ESD-219.

Added at PG&E request:

The conditions observed occurred on 6-4-84 in Unit II and the Area 10 Fab Shop. (Agreed 7-12-84) A.L.E. 7/12/84

FOR INFORMATION ONLY







314.08/08

Ref: STPR on DR 5946 dated July 21, 1984 . Page 11 of 12  
 the Linde L-32. It is designed for an inlet pressure of  
 25 psi.

Continued - Page 2

INDICATE APPROVAL BY CIRCILING THE APPROPRIATE "RECOMMENDED  
 DISPOSITION"

X

- A) Revise ESD-213 & ESD-219 to permit the use of the  
 additional types of flowmeters.  
 B) Revise ESD-213 to delete regulator calibration requirements.

X

- A) Withdraw all types of flowmeters from use which are not  
 permitted in ESD-213 and ESD-219.  
 B) Revise ESD-213 to delete regulator calibration  
 requirements.

PAGE to disposition.

ACCEPT AS IS: REVISE ESD 213 & 219 AS  
 DIRECTED BY UNIT II DR # 8657. (SEE MEMO  
 FROM J. MILLER TO J. HENNINGSEN, THOMAS  
 DATED 7.10.84. CLOSE DR UPON SUBMITTAL  
 OF REVISED ESD'S TO PG&E FOR REVIEW & APPROVAL.  
 7/2/84  
 6/29/84  
 7-10-84

APPROVED BY

INITIAL DISPOSITION: ☒ In Accordance With Above☐ Other (Explanation and approval required)FOR CUST. FILE ☐ YES ☐ NOFOR CUST. FILE ☐ YES ☐ NOEXPLANATION, IF NECESSARY: Added comment on page 2 for PG&E regarding disposition

FOR INFORMATION

ONLY

FOR CUST. FILE ☐ YES ☐ NO

QC weld monitoring to be instructed to monitor for flowmeter  
 conformance.

Additional info on work (attached) 7-10-84  
 7/2/84

FOR CUST. FILE ☒ YES ☐ NO ☐ Engineering Dept ☐ Other  
☒ Customer ☐ Production ☐ Field Inspection







Attachment to GAP 314.08.08  
Reference: STPR on DR 5946  
dated July 21, 1984 Page 12 of 12  
NO TEST PKG

UNITED STATES GOVERNMENT

AREA: 10 FAB SHOP ELEV.: COL/LINE: DATE: 6-29-84 NOTICE NO.: 96-059

DEFICIENT CONDITION: ON 6-29-84 AT APPROXIMATELY 11:00 A.M. I NOTICED A PECULIARITY ON SOME 1" THICK PLATES LYING ON DUNNAGE INSIDE THE NORTH END OF THE FAB SHOP AT AREA 10 CONT.

ALL TAGS APPLIED: 1, 2, P, R, S TAG: 96-059 RCM 196 DATE: 6-28-84 / 7-6-84

RECOMMENDED ACTION:  
INSTRUCT APPROPRIATE CRAFT AND Q.C. INSPECTORS AS TO THE PERTINENT E.S.D. REQUIREMENTS  
NOTE—I HAVE REMOVED THE HOLD TAG & THE MATERIAL HAS BEEN MARKED CLASS E PER E. WATSON. PLEASE FILE WITH ORIGINAL FOR INFO ONLY  
RCM 196 7-25-84

INSPECTOR'S SIGNATURE: [Signature]  
FIELD ENGINEER: [Signature] 7-6-84  
Q.C. INSPECTOR: [Signature] 7-10-84  
CHIEF ENGINEER: [Signature] 7-22-84  
FIELD QA/QC MANAGER: [Signature]

FIELD QA/QC MANAGER EVALUATION: ☒ APPROVED AS RECOMMENDED ☐ OTHER

- NON-CONFORMANCE - C.R. 2
- DEFECT DEF
- REPAIR DEFECT
- DEFECT DEF
- DEFECT DEF
- DEFECT DEF

COMMENTS: CAUSE CODE 3

FOR CRAFT STPR'S  
CONTROLLED COPY

DATE: 7/22/84 FIELD QA/QC MANAGER: [Signature]

CORRECTIVE ACTION REQUIRED BY: [Signature] NOT LATER THAN: [Signature]

STATE TO PREVENT RECURRENCE: ☐ NOT APPLICABLE  
CRAFT AND Q.C. SUPERVISOR TO ENSURE RESPONSIBLE PERSONNEL ARE INSTRUCTED TO APPLICABLE REQUIREMENTS AND PROCEDURES IN PARTICULAR ESD-201, PARA 3.2, QAI-152; PARA 11.5 & KFP-10, PARA 10.1.5. E

DEFICIENT CONDITION CLOSED: DATE: SIGNATURE:





10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100



GENERAL NOTE FOR ALLEGATION #314.10

The allegations contained in this affidavit are very similar to numerous previous allegations raised by a different alleged. The thrust of all of these allegations is exactly the same: i.e., that A307 Grade B is not weldable simply because it has not been designated a P1 material by the ASME Section IX committee.

The allegeders consistently refuse to accept the irrefutable, objective evidence that the A307 Grade B material is weldable, has been successfully welded at Diablo Canyon, and that the installations are acceptable for service. The welded attachments to the liner plate were subject to liquid penetrant examination and accepted, thus demonstrating weldability and acceptability. The studs welded to the liner plate were also torque tested, which further demonstrates weldability and acceptability for use.

In contrast to this objective evidence, the allegeders continue to quibble about ASME protocol in assigning P numbers to material. Bolting materials are not addressed in ASME Section IX. Section III, which does address bolting materials, assigns A307 Grade B a P-number 1 designation. P-number 1 procedures were used to weld the bolts.





1. The first part of the document is a list of names and addresses of the members of the committee.



GAP Allegation #314.10.01

It is alleged that:

On January 13, 1984, I identified widespread use of ASTM A-307 material in welded applications without a qualified welding procedure. This is a significant breakdown in both design and construction quality assurance, and was reported to both the licensee and the NRC RV staff by a discrepancy (nonconformance) report. My report was censored by the Pullman QA department to omit all reference to ASTM A-307 material. (2/22/85 O'Neill Aff. at 2.)

The alleged "censoring" of the discrepancy report (DR) was answered in the attached response to Allegation #200, at paragraphs 27 through 31, PGandE letter DCL-84-166, dated June 30, 1984. The alleged censoring of the report did not occur since a nonconformance did not exist in relation to A307 material and there was no need to identify A307 material on a DR.

The welding procedures used to weld A307 material were qualified, and no breakdown in design or construction quality assurance occurred.

The acceptability of ASTM A307 bolting material has been addressed repeatedly, most recently in response to NRC Allegation #1541 which was submitted in PGandE letter DCL-85-077, dated February 22, 1985. A copy of the previous response is attached.







GAP #200, Petition at 12.

It is alleged that:

Mr. Karner completely rewrote a Discrepancy Report that a QC inspector submitted on studs made from unqualified materials that were welded on the containment liner and elsewhere. Mr. Karner censored the DR to remove all references to two of the three unqualified materials Pullman had used -- A-108 and A-307 material. In effect, two-thirds of the proposed DR improperly was verbally dispositioned. (citing 2/25/84 Anon. Aff. at 7.)

27. The allegation appears to arise out of the alleged lack of understanding of Mr. Karner's procedural responsibilities as QA/QC Manager.
28. Under Pullman's ESD-240, "Field Procedure For Non-Conformance Reporting," the QA/QC Manager is responsible for the review and approval of all Discrepancy Reports (DRs) prior to submittal to PGandE. This review ensures that the alleged discrepant items do actually represent departures from procedures, specifications, or applicable codes and that the recommended disposition of the discrepant items complies with the requirements of Pullman's Quality Assurance Program. The DR is considered "proposed" until Mr. Karner has completed his review.







29. The proposed DR referenced in the allegation declared, inter alia, that the use of ASTM A-108 and A-307 Grade B materials as welding studs was a nonconformance because they allegedly were not P-1 materials as defined in ASME Section IX.
30. During his review of the proposed DR, Mr. Karner determined that A-108 and A-307 Grade B bolts, though not specifically listed in Section IX, do qualify as P-1 materials and that no deviation from approved procedures had occurred in welding them. ASTM A-108 is defined as a P-1 material in ASME code case N71-10. A-307 Grade B, as used at Diablo Canyon, also qualifies as a P-1 material. (See PGandE response, dated March 19, 1984, to Joint Intervenors' Motion to Reopen on CQA, Breisneister, et al., Aff. at 12-13.) The inspector who had prepared the proposed DR was informed of Mr. Karner's findings, and a corrected version of the DR was submitted to PGandE as DR 5739.
31. The implication of this allegation is that Mr. Karner has no right to edit DRs prepared by his subordinates. The facts are that Mr. Karner, under approved QA procedures, has the right, responsibility, and obligation to ensure the accuracy of such reports. Mr. Karner discharged this responsibility appropriately.







NRC Allegation #1541

**Allegation Description:**

An individual is concerned that PG&E and NRC did not prepare their response regarding the use of ASTM A-307 and ASME SA-307 grade B, bolts.

Quote from Lockert Affidavit Paragraphs 1.1 - 1.8:

1.1 On January 13, 1984 a Pullman QC Inspector documented the use of ASTM A-307 and ASME SA-307 Grade B bolts for welded installations on hangers and supports for Class 1 safety related systems: 07 (Reactor Coolant), 08 (Chemical and Volume Control), 09 (Safety Injection), 10 (Residual Heat Removal), 12 (Containment Spray), and 14 (Component Cooling Water). The bolts were not specifically ordered to be made from a P-1 classified base material. The purchase orders for the bolts did not specify that the supplementary requirements for welded applications would be in effect. As stated in ASTM A-307-82a (Exhibit 1) the supplementary requirements shall apply only when specified in the purchase order or contract. Exhibit 1 was first presented by myself in a 3/21/84 affidavit to which PG&E has yet to show purchase orders showing supplementary requirements applicable.

1.2 PG&E has stated in DCL-84-195 at para. 226,241, DCL-84-239 at JIR-28 (pages 1-6) that the bolts installed without supplementary requirements in the purchase order for the bolts are acceptable because ASME Sec. III tells them so. Note that PG&E has conveniently left out where in Sec. III this is stated. What has PG&E got to lose from a full and open disclosure of the facts? Regardless, it is well known and universally practiced that the master P-Number list for materials and their weldability is found in Sec. IX of the ASME code.

1.3 For example Article IV, para. QW 421 of ASME-83, Sec. IX states "... base metals have been assigned P-Numbers and for ferrous base metals which have specified impact test requirements, Group Numbers within P-Numbers. These assignments are based essentially on comparable base metal characteristics such as composition, weldability, and mechanical properties, where this can be logically done. These assignments do not imply that base metals may be indiscriminately substituted for a base metal which was used in a qualification test without consideration of compatibility from the standpoint of metallurgical properties, postweld heat treatment, design, mechanical properties, and service requirements."







1.4 Grouping of Base Metals for Qualification is the title for the master list of P-Numbers for procedure qualification purposes. QW-422 does not list A-307, grade B bolts as a P-1 base metal. Any claim to the contrary would be patently false. QW 422 is the place in the code where P-Numbers shall be determined and QW 422 is contained in Sec. IX; as it should be, behind the definition in QW 421 for a quick and final reference.

1.5 DCL-84-195 at 226 and 241, DCL-84-239 at JIR-28 (pages 2, 5, and 6) allude to the Code Case N71-7 as qualifying A-307, grade B bolts installed at Diablo Canyon Project. Breisemeister at 12 and 13 also presents this case stating that this proof qualifies A-307, grade B bolts as P-1 base metal. The USNRC Region V staff has also accepted the above citations as a final, "straw grabbing" qualification basis. Have any of the above individuals even read the text of the Case before citing its number? Conspicuously, the text was deleted from all references and no details were used to support the position.

1.6 ASME Section III Code Case N71-7 was approved 11/12/76 and annulled 11/21/80. The Case is no longer in effect because of a three year time restraint. This is an oversight PG&E forgot to mention. Additional oversights noted are:

- o Clearly citing the full Code reference N-71-7 (1644-7),
- o Stating the time period of PG&E's contract specification versus the time N-71-7 was in effect,
- o Clearly stating where in PG&E's contract specifications the Code Case had been implemented into design and quality assurance specifications for the project.

1.7 The title of Code Case N-71-1 Additional Materials for Component Supports Sec. III, Division 1 Subsection NF Class 1, 2, 3 and MC Component Supports clearly defines its boundaries. The case was available only to nuclear power plants whose design and quality assurance programs were dedicated to ASME Sec. III. By PG&E's own admission in DCL-84-195, paragraph 250, "ASME Sections III and VIII only apply in a very limited degree to Pullman's scope of work at this site and are, therefore, not a part of the training program."

1.8 Had PG&E and the NRC Region V staff even read the Code Case text there were 7 conditions to be met. Three conditions are worthy of note:







- o Adherence to Sec. III
- o 0.35% limit on carbon for base metals to be welded
- o All supports built under the provisions of the Case be identified with the Case number

Pullman had welded A-307 bolts with no limit on the percent of carbon, did not adhere to Sec. III, and did not identify the supports where the special conditions of the code case applied. Pullman's quality assurance program was still struggling to meet its B31.1 and B31.7 commitments after 10 to 12 years of Diablo construction. To even imply that ASME Sec. III is applicable at Diablo in defense of welding A-307 grade B bolting material as structural members holding base plates on Class 1 systems is simply false and unsupported by the facts. ASME Sec. III Subsection NF, para. 4311.1 restricts stud welding to non-structural applications such as insulation, name plates, and locating lugs. Welded A-307 grade B bolts as reported per the January 13, 1984 Discrepancy Report remain a Code non-conformance. PG&E's position has been one false statement after another in an inept coverup that just shows sloppy Code distortions to untenable positions. Note that PG&E and the NRC have not offered to consult the ASME Code writing body for conformation [sic] of their position; an act they of [sic] done instead of wasting effort on useless Code citations that remain unsupported. ASME Code Case N-71-7 is openly presented as Exhibit 2.

The issue of the use of ASTM A307 bolting material has been addressed and resolved in the NRC Report Nos. 50-275/84-42 and 50-323/84-31 dated February 5, 1985. The information below is provided as additional supporting material.

#### Overview of Response to Lockert Affidavit

Mr. Lockert's latest affidavit appears to be an attempt to create chaos out of the Codes and to somehow change the original allegations and the responses to those allegations.







Regarding the shielded metal arc welding of A307, Grade B studs, it is appropriate to start at the beginning and briefly recount the history so as not to lose perspective. The welding is technically correct, and the decision to weld these studs was properly derived. It was originally intended to attach studs to the containment liner plate by the automatic stud welding process (SW). This was abandoned in favor of attaching the studs by the manual Shielded Metal Arc Welding (SMAW), or manual Gas Tungsten Arc Welding (GTAW) processes. At that time, early 1980s, an evaluation was made to determine the weldability and code acceptability of various material. A prominent and obvious choice was A307, Grade B.

This choice was based on the fact that A36 is a weldable plain carbon steel designated as a P1 material and is listed in the relevant installation codes: ASME Section VIII, modified for the liner plate and attachments thereto; ANSI B31.7 for nuclear systems piping; and ANSI B31.1 for balance of plant piping. A36 references A307 and A325 for the bolt product form. Of these materials, the engineers selected A307, Grade B because it has appropriate limits on composition, strength, and hardness in the 1978 version of that material specification. A307, Grade B was also listed in ASME Section III Code Case N-71-7, in 1977, as a weldable material, and in Section III, Appendix Table I-13.3, as a P1 material in the winter 1978 addenda. While these ASME references were not and are not directly applicable, they support the engineering rationale that A307, Grade B is weldable and suitable for component support services.







Thus, A307, Grade B weld studs were ordered. The orders specifically stated that weld studs and certificates of conformance were to be provided.

In general, the purchased studs were used where necessary. However, occasionally a headed A307, Grade B bolt was used with the head cut off. In response to a DR on this subject, two chemical analyses were performed and these confirmed that the A307, Grade B unheaded bolts were in fact A307, Grade B, met the chemical composition requirements of A307, and were weldable.

The welds attaching these studs to the Unit 1 liner plate were subject to liquid penetrant examination. Also, all studs have the nuts tightened which applies a meaningful load, and torque testing is performed on those studs, welded to the containment liner plate, which is another meaningful test.

It is against this background of a carefully reasoned and thorough engineering approach to component support welding that Mr. Lockert's initial allegation that welding was being done on common hardware bolts was made (See Attachment A, which is the original allegation by Mr. Lockert and the response as given in the CQA response to JI allegations #14 and 15, Breismeister et al., Aff at 12 and 13.)

The original allegations have now been altered and distorted. It is, therefore, appropriate to address each of Mr. Lockert's paragraphs.







1.1 Response

The bolts were ordered to A307, Grade B which is a P1 material by virtue of the A36 reference. This determination is sustained by the ASME Section III confirmation. There was no need to specifically order the material as a P1 classified material. The selection of A307, Grade B was made before the 1982 edition of the A307 specification was available. Note that these standards are generally not available until the last half of the year of issue. The 1974 and 1978 versions of the A307 specification did not have an optional supplementary requirement for welding applications. It is obviously a misconception on Mr. Lockert's part to suggest that the A307-82 option requirements could have been imposed prior to mid-1982. (There is no requirement to update specifications to comply with the latest code revisions.)

The intent of the 1982 edition optional supplement is met since the purchase orders specifically state that weld studs are to be provided. Whether the optional requirements are truly necessary is debatable in light of the other chemical, hardness, and strength limitations imposed on A307, Grade B. It is noted that ASME Section III does not require the optional supplementary requirement to be imposed on A307, Grade B.

Thus, it is erroneous to allege that optional conditions which were not available prior to the last half of 1982 should have been mandatory prior to that time. The purchase order requirements, as stated therein, caused a satisfactory product to be delivered, as was demonstrated repeatedly by the







many liquid penetrant examinations and torque tests and by the two chemical analyses performed in 1984.

### 1.2 Response

A307, Grade B (SA307, Grade B) has been listed in ASME Section III, Appendices, Table I-13.3 since the winter 1978 addenda to the 1977 edition (see Attachment B). Section III determined that this material was weldable and a P1 material when used for component supports. ASME Section III has continued to list the A307 material in the 1980 and 1983 editions.

### 1.3 and 1.4 Response

It is incorrect to assume that only members of Section IX are knowledgeable regarding welding and can consider material classification, although Section IX personnel do perform these activities and do assign P numbers. It is obvious that Section III personnel considered the subject and assigned a P1 classification to the A307, Grade B, first in a Code Case and then in the Code.

There is no technical support for Mr. Lockert's refusal to accept the most relevant Section III reference and, in turn, to rely solely on a lack of clarification from Section IX.







### 1.5 and 1.6 Response

The Code Case N71-7 was referenced because it supports the thesis that A307, Grade B bolts are weldable. (Mr. Lockert's reference to Breismeister at 12 and 13 is in error, but that is immaterial.) Mr. Lockert's affidavit evidences a lack of understanding of Code Cases and the Code. All Code Cases have built-in terminations unless they are reaffirmed or superseded by newer revisions. An alternative to reaffirmation is incorporation of the Code Case in the Code. It is this latter course that was followed in this instance. Code Case N71-12 is current, and viable today. A307, Grade B is presently listed in ASME Section III and is, thus, no longer a Code Case.

The Code Case was referenced as supporting data, to demonstrate that A307, Grade B material is weldable and supports the project selection. It was neither stated nor implied that the Code Case was a project requirement. The Code Case need not be referenced in project specifications.

### 1.7 Response

The reference to the Code Case was to support the project selection and to demonstrate consistency, although compliance was not required. The A307, Grade B material was used in a nuclear power plant for component supports, as is the intent of the Code Case, and ASME Section III. The application has been consistent with these references, although compliance has not been required. Thus, the A307, Grade B is suitable for the purpose and was used







appropriately. Mr. Lockert apparently cannot accept this and has cited previous responses out of context.

### 1.8 Response

Once again, the reference by PGandE to the Code Case and to Section III were to sustain the project selection. These were not, and are not, requirements. The certified mill test reports (CMTRs) have shown that these materials meet the carbon content limitation of 0.35 percent. There are numerous practical manufacturing concerns which dictate that this limit would be consistently met. The A307, Grade B specification has a hardness limit of Brinell 212 or Rockwell B95, which is relatively soft. This limit would be difficult to obtain with higher carbon content material. Carbon content is also limited by manufacturers to minimize material costs, fabrication problems and the need for softening heat treatments. Because of the relatively low minimum tensile strength requirement, 60,000 psi, there is no need for other than plain carbon steel which is easily weldable.

Because the Code Case was not required but merely cited for reference or precedent, there is no need to reference the Code Case.

Mr. Lockert has confused the Subsection NF restriction on stud welding, an automatic welding process in structural applications, with the manual Shielded Metal Arc Welding (SMAW) or manual Gas Tungsten Arc Welding (GTAW) processes for studs. Mr. Lockert is comparing entirely different processes as if they







were the same. The Subsection NF reference is not a requirement for Diablo Canyon.

In summary, the welding of 307, Grade B material for component support structures is technically valid (and is sustained by references to Code Case and Section III as precedent) sustaining the project decision and selection. Numerous liquid penetrant examinations and torque tests have verified that the A307, Grade B material is weldable and suitable for service. In contrast, there is no contrary evidence regarding suitability presented by Mr. Lockert but rather a jumble of time inversions, misstatements, and attempts to change the required code.







back gouging serve the same purpose by providing backing for the weld puddle and assuring full weld fusion to the weld root. The back gouging and back welding operations were controlled by the process sheets.

Therefore, even though back gouging is not specifically identified in WPS 7/8, it is equivalent to the use of a backing bar. In addition, the welding of studs using WPS 7/8 is qualified in accordance with ASME IX.

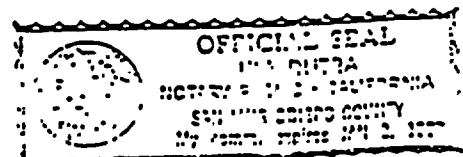
31. Contrary to Mr. Lockert's reference to WPS 7/8, the WPS being used when Mr. Lockert expressed his concern to Pullman supervision was WPS-203, which utilizes the GTAW process. WPS-203 specified the GTAW process, an ASME IX qualified welding procedure, that is qualified for all the essential variables necessary to install the studs.
32. Finally, Mr. Lockert was not "yanked" from this assignment. As stated in his own affidavit (Lockert at p. A8), Mr. Lockert was not required to inspect the referenced welds to the approved procedures due to his reservations, and another inspector was asked to perform the inspection.

J1 #14 and 15, Motion at 12.

It is alleged that:

Pullman also overextended Code 7/8 by welding common hardware bolts, instead of the threaded studs that theoretically were welded to the containment liner. Construction crews turned the bolts into rough threaded studs by cutting the heads off and chiseling the end until it was pointed. (citing 1/16/84, Anon. Aff. at 3-4.)

Since they came from common hardware bolts of A 307 material, the homemade studs neither have controlled chemical contents such as carbon limitations, nor material traceability. As a result, it is uncertain whether the welds will hold for such suspect material. (citing 1/16/84, Anon. Aff. at 3-4 and 1/12/84, Anon. Aff. at A8.)





$\frac{d}{dt} \left( \frac{\partial L}{\partial \dot{x}} \right) = \frac{\partial L}{\partial x}$

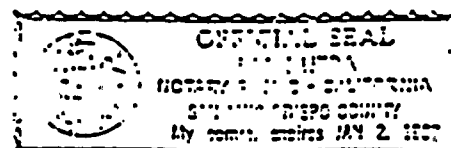


33. The studs referred to in this allegation are not "common hardware bolts" with uncontrolled chemistry as alleged. In fact, these studs comply with all the requirements for A307 Gr. 8 steel. A307 Gr. 8 bolts are included as a referenced product form in A36. Thus, A307 Gr. 8 bolts are A36 material. A36 material is a P-1 material and is weldable using WPS 7/8. The use of A307 Gr. 8 bolts as a P-1 material is further verified by ASME Section III (the code which superseded ANSI B31.7 for nuclear construction). Additionally, as discussed in response to JI #11, 12 and 13, these studs were properly welded using WPS 7/8.
34. The bolts were altered to obtain a chisel end to provide double bevel groove which would afford the full penetration weld specified. This "chisel" configuration is obtained from a threaded stud or a bolt with the head removed. The result is the same as if a threaded stud had been used and has no effect on the weld groove and quality.
35. Contrary to the allegation, both the threaded stud and bolt material meets all specification and code requirements for weldability, chemical composition, strength, and traceability. Furthermore, all welded studs were torque tested, which demonstrated the adequacy of the installation.

JI #16, Motion at 12-13.

It is alleged that:

Code 7/8 has been used to weld at least eight pipe support joint configurations, including flare bevel groove welds, and double groove welds, not covered by 7/8. Each configuration represents a unique essential welding variable and legally must have its own approved weld procedure specification detailing the joint configuration. (citing 1/16/84, Anon. Aff. at 3-4 [sic, actually citing Hudson Aff. at 5] and Lockert Aff. at A10-11.)









W77

TABLE I-13.3

YIELD STRENGTH VALUES,  $S_y$ , FOR BOLTING MATERIALS FOR CLASS 1, 2, 3, AND MC COMPONENT SUPPORTS

	Nominal Composition	P. No.	Gr. No.	Spec. No.	Type or Grade	Class	Notes	Min. Yield Strength, ksi	Min. Ult. Tensile Strength, ksi	Yield Strength Intensity, ksi (Multiply by 1000 to Obtain psi). <sup>1</sup> For Metal Temperatures, F, Not to Exceed									
										100	200	300	400	500	600	650	700	750	800
Carbon Steels																			
W78	C	...	...	SA-194	2H	...	(1)(2)	...	...	...	...	...	...	...	...	...	...	...	...
	C	1	1	SA-307	B	...	...	36	58	36.0	32.8	31.9	30.8	29.1	26.6	26.1	25.9	...	...
	C	...	...	SA-325	...	...	...	81	105	81.0	...	...	...	...	...	...	...	...	...
Low Alloy Steels																			
L47	1 Cr-0.2 Mo	...	...	SA-194	7	...	(1)	...	...	...	...	...	...	...	...	...	...	...	...
	1 Cr-0.2 Mo	...	...	SA-193	B7	...	...	105	125	105.0	98.0	94.1	91.5	88.5	85.3	83.0	80.6	77.5	74.0
	1 Cr-0.2 Mo	...	...	SA-193	B7	...	...	95	115	95.0	88.5	85.1	82.3	80.1	77.1	75.1	73.0	70.1	66.9
	1 Cr-0.2 Mo	...	...	SA-193	B7	...	...	75	100	75.0	69.9	67.2	65.4	63.2	60.9	59.2	57.5	55.4	52.7
	1 Cr-½ Mo-V	...	...	SA-193	B16	...	...	105	125	105.0	102.0	99.6	97.5	95.4	92.5	90.3	88.2	85.8	83.1
	1 Cr-½ Mo-V	...	...	SA-193	B16	...	...	95	110	95.0	92.1	90.0	88.2	86.4	83.7	81.7	79.8	77.5	75.3
	1 Cr-½ Mo-V	...	...	SA-193	B16	...	...	85	100	85.0	82.5	80.7	78.9	77.1	75.0	73.1	71.4	69.4	67.2
	1 Cr-0.2 Mo	...	...	SA-320	L7	...	...	105	125	105.0	98.0	94.1	91.5	88.5	85.3	83.0	80.6	77.5	74.0
	1% Ni-X Cr-X Mo	...	...	SA-320	L43	...	...	105	125	105.0	99.0	95.7	91.8	88.5	84.3	82.1	79.2	76.4	72.6
	AISI 4037	...	...	SA-320	L7A	<2%	(2)(3)	105	125	105.0	98.0	94.1	91.5	...	...	...	...	...	...
	AISI 4037, 4340	...	...	SA-354	BC	<2%	(2)(3)	109	125	109.0	102.0	98.5	95.6	92.8	89.7	86.0	82.9	...	...
	AISI 4037, 4340	...	...	SA-354	BC	>2% <4	(2)(3)	99	115	99.0	92.5	89.4	86.9	84.3	80.5	78.1	75.3	...	...
	AISI 4037, 4340	...	...	SA-354	BD	<1%	(2)(3)	125	150	125.0	116.9	112.9	109.8	106.5	101.8	98.6	95.0	...	...
	1 Cr-X Mo-V	...	...	SA-540	B21	1	...	150	165	150.0	143.4	138.6	134.4	130.2	124.2	120.2	116.8	...	...
	1 Cr-1 Mn-X Mo	...	...	SA-540	B22	1													
	2 Ni-X Cr-X Mo	...	...	SA-540	B23	1													
	2 Ni-X Cr-½ Mo	...	...	SA-540	B24	1													
	1 Cr-X Mo-V	...	...	SA-540	B21	2	...	140	155	140.0	133.8	129.3	125.4	121.5	116.1	112.1	108.9	...	...
	1 Cr-1 Mn-X Mo	...	...	SA-540	B22	2													
	2 Ni-X Cr-X Mo	...	...	SA-540	B23	2													
2 Ni-X Cr-½ Mo	...	...	SA-540	B24	2														
1 Cr-X Mo-V	...	...	SA-540	B21	3	...	130	145	130.0	124.1	120.5	116.4	112.9	107.8	104.1	101.1	...	...	
1 Cr-1 Mn-X Mo	...	...	SA-540	B22	3														
2 Ni-X Cr-X Mo	...	...	SA-540	B23	3														
2 Ni-X Cr-½ Mo	...	...	SA-540	B24	3														
1 Cr-X Mo-V	...	...	SA-540	B21	4	...	120	135	120.0	114.6	110.7	107.7	104.1	99.3	96.3	93.3	...	...	
1 Cr-1 Mn-X Mo	...	...	SA-540	B22	4														
2 Ni-X Cr-X Mo	...	...	SA-540	B23	4														
2 Ni-X Cr-½ Mo	...	...	SA-540	B24	4														

NRC Allegation 1541  
Attachment B  
1 of 1

• - W78







GAP Allegation #314.10.02

It is alleged that:

Use of ASTM A-307 material in welded applications cannot be considered conservative engineering practice, as the quality assurance requirements normally associated with the manufacturing of bolts for flanged joints are wholly inadequate to ensure weldability for critical installations. Welding of this material must be in accordance with the ASME Boiler and Pressure Vessel (B&PV) Code, Section IX. Section IX requires chemistry controls not found in the A-307 specification to ensure weldability. There was no procedure qualified to weld this material, and as recent new information indicates, serious doubts as to the adequacy of the quality assurance program of a vendor identified in my report. The quality of these installations is not assured, it is indeterminate. (2/22/85 O'Neill Aff. at 3.)

The acceptability of ASTM A307 bolting material has been addressed in response to NRC Allegation #1541 in PGandE letter DCL-85-077, dated February 22, 1985, attached to the response to #314.10.01.

Contrary to the allegation, welding procedure specifications and welders were qualified in accordance with ASME, Section IX. Section IX does not specifically require chemistry controls. The Section IX committee considers chemistry along with other criteria when assigning P numbers. Section IX does not address bolting materials. Section III considered A307 Grade B bolting materials and assigned a P1 designation. Qualified P1 welding procedure specifications were used to install this material.

The allegations as to the adequacy of the quality assurance program of a vendor (Cardinal Industrial Products) were answered in PGandE letter DCL-85-152, dated April 17, 1985.







The suitability of the A307 Grade B material provided by Cardinal and others has been repeatedly proven and reproven by the liquid penetrant examinations and torquing of the installed welded studs. These examinations and tests have shown that there is no concern for the A307 Grade B material provided by Cardinal and others, as welded at Diablo Canyon.







GAP Allegation #314.10.03

It is alleged that:

In a meeting with QA manager Harold Karner on January 18, 1984, I was told by Karner that "all A-307 material was produced from A-36 steel", although Karner had no objective evidence to prove this statement. I explained the technical requirements for weldability of carbon steel, specifically carbon content control and material traceability, to refute the assertion that weldable grade material is universally used to produce bolts. There is no assurance that weldable grade bolts were supplied at Diablo Canyon, and used extensively in safety-related pipe supports. (2/22/85 O'Neill Aff. at 4.)

The acceptability of ASTM A307 bolting material was addressed in response to NRC Allegation #1541 in PGandE letter DCL-85-077 dated February 22, 1985; a copy of that response is attached to the response to Allegation #314.10.01.

The proof that weldable material was used lies in the numerous liquid penetrant examinations and torque tests which have been performed and have demonstrated the material to be weldable and acceptable for use.







GAP Allegation #314.10.04

It is alleged that:

In the above referenced meeting, Karner produced a chart from ASME B&PV, Section III which listed ASTM A-307 as a P-1 material. I replied that the section was not applicable, as it concerned bolting stress allowances for design. For weldability, Section IX is the controlling document and does not recognize A-307 as a weldable (P-1) material. Karner refused to include A-307 in the official report, which is in reality falsification of a document by omission. (2/22/85 O'Neill Aff. at 4.)

Contrary to the allegation, Section IX is not the exclusive definer of weldability. Other sections also consider material weldability. The Section III committee has determined that A307 Grade B is weldable and has assigned it a P1 designation.

The issue of the use of ASTM A307 bolting material has been addressed in response to NRC Allegation #1541 in PGandE letter DCL-85-077 dated February 22, 1985; a copy is attached to the response to Allegation #314.10.01.

The alleged falsification, previously called "censoring" by the allegor, was completely answered in PGandE letter DCL-84-166 dated June 30, 1984, Allegation #200, at paragraphs 27-31 (see copy attached to the response to Allegation #314.10.01).





THESE DOCUMENTS SONT EN PARTIE DESTINES A LA COMMUNIQUE



GAP Allegation #314.10.05

It is alleged that:

The use of ASTM A-307, A-325, A-194-B7, and other materials as well in welded applications clearly indicate [sic] a pervasive breakdown of quality assurance in regard to welded studs. Also, there was no design review by PG&E for weldability of the materials, as the ASME Code clearly prohibits welding of these specifications with the procedures qualified and in use at Diablo Canyon.

For PG&E to admit that a breakdown in quality assurance of this magnitude existed, it would have to be corrected prior to licensing the plant. At this time, PG&E was requesting an operating license for Unit 1. New information only recently made available indicates a serious breakdown in the quality assurance program of a supplier of ASTM A-307 bolts referenced in my original report. (2/22/85 O'Neill Aff. at 5.)

As this allegation involves the use of three different materials, separate responses have been prepared discussing each material.

1. The issue of the use of ASTM A307 bolting material has been addressed in response to NRC Allegation #1541 in PGandE letter DCL-85-077 dated February 22, 1985; a copy is attached to the response to Allegation #314.10.01.

It can clearly be seen that no "pervasive breakdown" of QA occurred. Section III of the ASME Code clearly allows welding of A307 Grade B material with the use of qualified procedures such as those in use at Diablo Canyon. As Section III allows welding of A307 Grade B, and has designated it a P1 material, no specific or formal design review by PGandE for weldability was required. That designation is consistent with the weldability considerations of Pullman and PGandE.



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2. The use of ASTM A325 material in welded applications was identified, properly documented in Discrepancy Report DR-5739, researched to determine the scope of applications, and properly dispositioned by PGandE.

Contrary to the allegation, this demonstrates a properly functioning QA program.

3. The A194 material specification is for nuts, not bolting. Therefore, it is presumed that the allegor meant A193 Grade B7, which is the specification for bolting material.

It is true that A193 Grade B7 material had been used in welded applications at Diablo Canyon. This usage was properly:

- (1) identified through a functioning QA program; (2) documented in Pullman's DR-5891 for Unit 1 and DR-8521 for Unit 2, and in PGandE's NCRs DC1-84-RM-N010 for Unit 1 and DC2-84-RM-N011 for Unit 2;
- (3) researched to determine the extent of the application; and
- (4) properly dispositioned and resolved by PGandE.







GAP Allegation #314.10.15

It is alleged that:

A recently-released Region V Inspection report, dated February 5, 1985, contains some glaring false statements regarding the issue of welded ASTM A-307 material. In Report Nos. 84-42 and 84-31, Inspector Dennis Kirsch states, "The staff satisfied itself that A-307 was a material which was properly approved for ASME or AWS usage and the use of welding procedure 7/8." This statement is false, as neither AWS or ASME recognize the use of this material without first qualifying a welding procedure using this material. A further aspect of this is that conservative engineering groups would require more quality assurance of materials than is required for A-307 in welded applications. (2/22/85 O'Neill Aff. at 10.)

Contrary to the allegation, the ASME Section III committee has considered the A307 Grade B material, determined that the material was acceptable for component supports, and assigned a P1 designation. With the P1 designation, qualification of a procedure with the specific material is not necessary. Pullman used ASME Section IX-qualified P1 welding procedures to install the A307 Grade B material.

The acceptability of ASTM A307 bolting material has been addressed in detail in the response to NRC Allegation #1541 in PGandE letter DCL-85-077, dated February 22, 1985; a copy is attached to the response to Allegation #314.10.01.







GAP Allegation #314.10.16

It is alleged that:

Dennis Kirsch uses the same flimsy excuse that Harold Karner attempted to use more than a year ago by referring to ASME Section III, Table I-13.3. The P numbers listed in this table are for information only, and one must reference ASME Section IX for weldable materials. (2/22/85 O'Neill Aff. at 10.)

The allegations raised by this allegor are merely a repeat of similar allegations previously raised by another affiant. These earlier allegations have been addressed in response to NRC Allegation #1541 in PGandE letter DCL-85-077 dated February 22, 1985. The specific responses are numbered 1.2, 1.3, and 1.4, and are located on page 7 of the copy attached to the response to Allegation #314.10.01.







GAP Allegation #314.10.17

It is alleged that:

The fact of this matter is that ASME Code Interpretation NI-84-041, which is to be published in the next addenda to the Code, specifically cites Section IX as the controlling document as an answer to the very question posed in this case. The P-numbers listed in Table I-13.3 cannot be used to determine weldability. This is exactly what I told Harold Karner more than a year ago, to refute his contention that because Table I-13.3 listed A-307 as a P-1 material, it in fact was. (2/22/85 O'Neill Aff. at 10.)

Again, the response to this allegation is included in the response to NRC Allegation #1541 in PGandE letter DCL-85-077 dated February 22, 1985. Specifically, see responses 1.2, 1.3, and 1.4 on page 7 included with the response to Allegation #314.10.01.

The interpretation regarding the fine points of ASME protocol for P number assignment is immaterial to this issue. The facts are that the weldability of A307 Grade B material was successfully proven by examinations and tests of the installed material, and that the decision to weld the A307 Grade B was derived by analysis and the precedent of the ASME Code Cases N71-7 and N71-8. Further, A307 Grade B continues to be listed in ASME Section III, Winter 1984 Addenda, as a P1 material.







GAP Allegation #314.10.18

It is alleged that:

Kirsch further states in his February 5, 1985 report that he "examined certified material test reports (CMTR) for the welded A-307 at Diablo Canyon. As this was the first time a CMTR had been mentioned, I called Kirsch on February 15, 1985 to gain more information. In this conversation, Kirsch stated he had not seen the CMTR's until late 1984. In light of the fact that the manufacturer would not normally be required to have CMTR's for this material, and that the manufacturer was Cardinal Bolt, and that almost a year elapsed since the issue was raised, serious questions arise as to the validity of these reports. (2/22/85 O'Neill Aff. at 11.)

At Diablo Canyon, Pullman Power Products purchased and used A307 Grade B material for pipe supports. For pipe support material, only a Certificate of Compliance (CofC) is required, not a CMTR. A CofC is a simple statement by the manufacturer that the material provided conforms to the material specification requirements, whereas, a CMTR is a certified report of actual results of tests performed on the actual material provided. Some of the welded A307 material was supplied with a CMTR, a higher level of certification than was required. The manufacturer of those particular bolts was Texas Bolt Company, not Cardinal Bolt as alleged.







GAP Allegation #314.10.19

It is alleged that:

When asked to cite purchase orders reviewed, Kirsch stated he "had not written anything down", and that he "could't [sic] remember which ones he looked at". He did state that "several Purchase orders could not be matched to a CMTR". Although this would seem to substantiate my concerns, this was ignored by the staff. Due to the findings of the NRC VPB, there is little objective evidence to believe that Cardinal would have above-board QA for their non-certified items, yet would be in so much trouble over their supposedly certified materials. (2/22/85 O'Neill Aff. at 11.)

As stated in the response to Allegation #314.10.18, CMTRs are not required for pipe support material. All A307 Grade B material supplied by Cardinal was supported by a Certificate of Compliance, in accordance with Code and contract requirements.

As discussed in PGandE letter DCL-85-153, dated April 17, 1985, the hardware delivered by Cardinal has repeatedly been found to meet requirements. There is no data to suggest that Cardinal provided deficient A307 Grade B material.







GAP Allegation #314.10.20

It is alleged that:

Kirsch could not confirm that the CMTR's he reviewed indicated that the material used to manufacture A-307 bolts was purchased as a P-1 material in accordance with Section IX of the ASME Code. This is the only acceptable conclusion to the acceptability of this material. (2/22/85 O'Neill Aff. at 11.)

As stated in previous responses, and in response to Allegation #1541 submitted in PGandE letter DCL-85-077, dated February 22, 1985, no special requirements need to be placed on A307 Grade B material in order for this material to be weldable and acceptable for use. ASME Section IX does not address bolting materials. Thus, it is inappropriate to allege that inaction by Section IX implies that A307 Grade B bolting material is not weldable or acceptable. It is also incorrect to expect CMTRs for bolting to reference Section IX, which addresses qualification tests for welding procedure specifications and personnel.







GAP Allegation #314.10.21

It is alleged that:

In a February, 1984, interview with RV inspector Gonzalo Hernandez, I was told by Hernandez that, "NRC metallurgists had determined that A-307 material was acceptable, but that A-325 was not." As Region V would not examine a CMTR until it was "resurrected" almost ten months later, I wonder what Hernandez was citing as evidence that no problem existed. The metallurgists referred to in this conversation were most probably PG&E's. Further attempts throughout March, April, and May to obtain any objective evidence for this conclusion proved futile. (2/22/85 O'Neill Aff. at 12.)

PGandE has no knowledge of the alleged remarks by Mr. Hernandez and the assumed activities of the NRC, but the indicated conclusions are consistent with PGandE's earlier responses. A CMTR is not a required document in determining the acceptability or weldability of these materials. The NRC Staff members involved in this investigation may have considered the numerous examinations and tests which have been successfully performed on the installed products as the best evidence of weldability.







GAP Allegation #314.10.22

It is alleged that:

NRC Region V staff stated falsely in testimony before the Commission that the use of ASTM A-307 material in welded applications was authorized by a Code Case to the ASME B&PV Code. In fact, no current Code Case is applicable to this material in welded applications. (2/22/85 O'Neill Aff. at 13.)

The response to this allegation is contained within the response to NRC Allegation #1541 in PGandE letter DCL-85-077, dated February 22, 1985. Specifically, see responses numbered 1.5 and 1.6 in the copy provided with the response to Allegation #314.10.01.

The assertion that the A307 Grade B material is not listed in a current Code Case is correct. However, the material is listed as a P1 material in ASME Section III in the current 1983 Edition, Winter 1984 Addenda. The A307 Grade B material was authorized in Code Case N71-7 and N71-8 until this material was incorporated into the Code, Section III, where it remains to this day, thus continuing its authorization.







GAP Allegation #314.10.23

It is alleged that:

The fact that the NRC Region V staff's position on this matter parroted the original excuse that Pullman and PG&E offered proves the staff's willingness to accept licensee responses to allegations at face value, with no critical review of the information presented. In this case, the use of ASTM A-307 material is clearly unacceptable without some objective evidence that this material, as supplied to Diablo Canyon, meets the requirements for weldable chemical composition. Had this information, if it existed at the time, been made available, this would not have become the issue it now appears to be. (2/22/85 O'Neill Aff. at 13.)

The clear, objective evidence of weldable material is the numerous liquid penetrant examinations and the torquing tests which have been successfully applied to the welded studs. As has been consistently demonstrated, no special chemical control of A307 Grade B material is required by either the contract specification or the applicable construction code to allow A307 Grade B to be used in welded applications.





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It is alleged that:

The staff freely divulged the content of our confidential conversations concerning harassment and intimidation to the very management individuals who, I believe, were orchestrating the process in an attempt to get me off the Diablo Canyon site. By PG&E's own admission at the time, the delays caused by allegations were costing upwards of \$16 million per week. The types of deficiencies I was finding as an inspector were serious enough as to have licensing impact. As licensing drew near, and particularly after the June ASLAB hearings, the harassment I was getting became markedly more severe. Exhibit 6 is a decision by the California Unemployment Appeals Board, Case No. VN 24357, concerning Pullman's appeal of my unemployment insurance claim. This report states, inter alia,

"The Department determined that the claimant had quit his job because of unsafe working conditions which were brought to the employer's attention but insufficient action was taken to correct this matter".

and "...the claimant had voluntarily quit because of hazardous working conditions after informing the employer that a need for corrective action need be taken. The claimant met his reporting responsibility to the employer by making the employer aware of his concern. The Department determined that insufficient action was taken to correct the problem by the employer. The Department determination and ruling and the presumption was not rebutted by the employer." (2/22/85 O'Neill Aff. at 15-16.)

Pullman QA/QC management has held a number of discussions with the NRC regarding harassment and intimidation, both in general terms and in regard to specific incidents. The information and documentation of actions taken



[illegible]



pertaining to specific incidents was presented to the NRC for its review. No harassment or intimidation of an individual, including this alleged, occurred as a result of any discussions between an individual and the NRC or with regard to investigations conducted by the NRC.

The incidents claimed as harassment or intimidation by this alleged were investigated by his Lead Man, QC Supervisor, Assistant QA/QC Manager, QA/QC Manager, and Resident Construction Manager, as applicable and appropriate. When the incident could be verified and the responsible parties identified, appropriate action was taken. In those cases where the incident could not be verified, craft supervisors were reminded that harassment of QC personnel was a violation of federal law and could result in disciplinary action up to and including termination.

Any quality deficiencies documented by the alleged were evaluated and resolved in accordance with approved Procedures ESD 268 and ESD 240.

PGandE asserts it has never condoned any harassment or intimidation of personnel at the Diablo Canyon Plant. A thorough investigation into all such claims was conducted, and if the facts warranted, appropriate action was taken.







GAP Allegation #314.10.25

It is alleged that:

NRC investigations did not make an effort to protect the confidentiality of the alleged. The effect of the investigations was to alert the licensee and subcontractor who the "problem" individuals were who were providing information to the NRC. These individuals, myself included, were then targeted for harassment. (2/22/85 O'Neill Aff. at 16.)

Both Pullman and PGandE recognize that any alleged instances of inspector harassment could have an adverse affect not only on the overall efficiency and acceptability of the Quality Assurance Program but also, ultimately, on the licensing of Diablo Canyon. All such alleged incidents were, and are, thoroughly investigated by the appropriate supervisors. When any incident of harassment was substantiated and the responsible party was identified, appropriate disciplinary actions were taken. In addition, PPP made all its personnel aware of the consequences of harassing Quality Control personnel, not only under the Company's internal policy, but also pursuant to the provisions of NRC regulations regarding "Employee Protection" and "Protection of Inspectors."

The assertion that PGandE or any of its contractors had a management policy of harassing or condoning the harrassment of known alleged is categorically untrue.







GAP Allegation #314.10.27

It is alleged that:

Once PG&E established the Quality Hotline in March, 1984, the staff refused to accept new allegations. I was wary of dealing with the Hotline, but did make several allegations that the NRC refused to listen to available to the Hotline. These concerned concrete drilling practices, harassment over discrepancy reporting priority, and material storage problems that the subcontractor refused to deal with. The Hotline, as I suspected, was a vehicle for PG&E management to stall issues past any licensing deadline, while management ultimately succeeded in making my life on site so miserable that I had no choice but resign. (2/22/85 O'Neill Aff. at 16-17.)

The PGandE Quality Hotline was established in January 1984 to respond to quality complaints and concerns. Its existence was broadly publicized to all personnel on site. Under this program, investigation of Hotline concerns was made the responsibility of the General Construction Quality Control Department. The General Construction QC Department promptly and independently investigates all complaints and takes any appropriate action to resolve the concerns. Since its inception, the Quality Hotline has received over 140 concerns. The majority of these concerns have been resolved within 30 days of receipt. Their resolution is in no way governed by management or licensing pressure nor has it been used by PGandE as a "vehicle" to stall issues past any licensing deadline. Indeed, all Hotline records of concern are available for inspection and review by the NRC at any time.

Records show that the alleged did contact the Hotline with several concerns







which were subsequently addressed (discussed below). As documented in the alleged's Hotline concern file, the alleged was not satisfied with the Hotline's resolution of his concerns.

The four concerns submitted to the Quality Hotline by the alleged involved the subjects of (1) uncontrolled storage areas, (2) anchor bolts, (3) stop work orders, and (4) QC inspector harassment. Disposition of these concerns was as follows:

<u>Subject</u>	<u>Date Initiated</u>	<u>Date Closed</u>	<u>QCSR #</u>
Uncontrolled Storage Area	05/08/84	09/06/84	041
Anchor Bolt Concerns	05/15/84	11/16/84	045
Stop Work Orders	05/18/84	08/06/84	048
QC Inspector Harassment	07/02/84	08/03/84	059

The primary reason that three of the concerns remained open for 3, 4 and 6 months, respectively, was that specific information regarding the concerns was not originally provided by the alleged. The investigations involved numerous follow-up meetings with the alleged to acquire sufficient facts to close the concerns.

In NRC Inspection Report Nos. 50-275/84-21 and 50-323/84-10, dated September 12, 1984, para. 5.J, at p 15 (attached), the NRC stated that it had reviewed selected records from the Quality Hotline Program and determined that







it was an effective method for resolution of "quality" concerns and that PGandE had expended a substantial effort to address the concerns.

As to the allegation that since the inception of the Quality Hotline (January 1984) "the Staff [has] refused to accept new allegations," one has only to look at the literally hundreds of allegations accepted, investigated, and resolved by the Staff since that time as part of its Allegation Management Program (DCAMP).





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