Problem Statement

Allegation #(s): 1 & 2

ATS No.(s): Q582004 , Q582006

BN(s):

This document lists (or directly references) each allegation or concern brought to the attention of NRC personnel. The purpose of this statement sheet is to assure that all points raised by the alleger are covered.

If the problem statement is not clear as to who, what, where, when, or why regarding the issue, the commentary section will amplify the statement. The commentary section will also be used if there is apparent conflicting information or if there is no or very little original information available which describes the concern(s). (This can occur if, for example, a line concern was received in an interview).

Problem Statements (use extra sheets as necessary)

Allegation #	Verbatum Statement or Reference
1 & 2	See OI

1. Passing of Contraband
2. Anti-Nuclear Demonstration

Commentary

No info. avail. in Ops. Bldg.

Date This Statement was Completed 3-16-84

H Gaston
Technical Reviewer Signature

Task: Allegation or Concern No. 1

ATS No: Q5-82-0004 BN No:

Characterization

Passing contraband

Implied Significance to Plant Design, Construction, or Operation

Assessment of Safety Significance

Staff Position

Sensitive

Action Required

05 FINAL
ASC update 1 3-12-84

Task: Allegation or Concern No. 1

ATS No.: Q5-82-004 BN No.:

Characterization

Allegation that two construction employees might possibly have been involved in passing contraband through the protected area fence from Unit 2 into Unit 1.

Implied Significance to Plant Design, Construction, or Operation

Physical security and, therefore, plant safety could be in jeopardy.

Assessment of Safety Significance

The investigation by OI is completed.

Staff Position

Allegation not substantiated.

Action Required

Inquiry Report in preparation.

Task: Allegation or Concern No.2

ATS No: Q5-82-006 BN No:

Characterization

Anti-Nuclear demonstration

Implied Significance to Plant Design, Construction, or Operation

Assessment of Safety Significance

Staff Position

Sensitive

Action Required

FINAL

Task: Allegation or Concern No. 2

ATS No.: Q5-82-006 BN No.:

Characterization

An individual who was involved in the Diablo Blockade attempted to purchase C-4 (explosive).

Implied Significance to Plant Design, Construction, or Operation

None.

Assessment of Safety Significance

The investigation by OI is completed. No direct connection was made with the plant site.

Staff Position

No information developed to make this matter of concern for the NRC.

Action Required

Inquiry report issued by OI on January 5, 1984. No further action required by NRC.

Task: Allegation or Concern No. 7

ATS No.: NRR-83-02 BN No.: 83-03 (1/7/83)

Characterization:
~~PG&E failed to conduct an adequate program to prevent adverse~~ Interaction of Seismic Category II structures and equipment with seismic Category I structures and equipment.

Implied Significance to Plant Design, Construction, or Operation

If as alleged PG&E did not have a clear understanding of the scope of the targets and commitments to the NRC in the Seismically-Induced Systems Interaction Program (SISIP), then the misunderstanding might be significant to operation of equipment important to safety. At Diablo Canyon "Targets" refers to selected set of structures, systems and components that are important to safety and serve to either bring the plant to safe shutdown or maintain it in safe shutdown condition. A misunderstanding of the scope of the targets might affect the capability to safely shutdown the plant following the occurrence of a Hosgri event.

Assessment of Safety Significance

At the request of the Advisory Committee on Reactor Safeguards (ACRS) PG&E agreed to initiate a program to determine if seismically initiated failure of non-seismically qualified equipment and piping would cause interaction with safety-related sytems which could prevent the plants from being safely shutdown following the occurrence of a Hosgri event.

PG&E, by letters dated May 7, July 1, July 15, August 19, and September 16, 1980, submitted drafts of their proposed program to the NRC staff for review and comment. The degree of PG&E's understanding including many details, e.g., target selection criteria, application of the target selection criteria,

Allegations File 3-8 Package.....

source identification criteria, application of source identification criteria, source-target interaction criteria, application of the source-target interaction criteria analysis for the resolution of postulated interactions, and the resolution of postulated interactions by plant modifications were contained in their draft program. These drafts were reviewed and comments submitted to PG&E as guidance for their use in improving their program. These reviews were described in Sections 2 through 5 of Supplement No. 11 to the Safety Evaluation Report (NUREG-0675, Supplement 11).

The staff performed an onsite audit of the program activities (reported in Sections 6 and 7 respectively of Supp 11). Although the audit did not include a 100% review of PG&E's target list, it did include sufficient review to provide confidense that the list reflected the actual plant systems, components, structures and layout.

By letter dated October 13. 1983, PG&E submitted an information report on the status of their seismic systems interaction study within the containment of Unit 1. Included in the Information Report was the preliminary status of their study of Unit 2. PG&E has not yet completed its study of Unit 2 and the staff has not yet completed its review. However, the staff has not yet identified any misunderstanding of the original scope of the targets and commitments to the NRC in the PG&E program. In fact, there has been even more detailed understandings attained and more voluntary commitments made to the NRC. Therefore, the extent to which we have communicated with PG&E provides reasonable assurance that PG&E understands the scope of the targets and the commitments made by PG&E to the staff. The commitments are documented in

Section 8.2, Supplement 11 to NUREG-0675 (SER):

(a) "PG&E will complete their program and any necessary plant modifications for each unit prior to the issuance of any license authorizing full-power operation of that unit."

(b) Region V, OIE, will verify "the completion of PG&E's program and the accetability of any plant modifications."

(c) "PG&E will ...provide for our information copies of their final report of their program which will include and identification of all interactions postulated, all walkdown data, interaction resolution, and technical reports."

Staff Position

Based upon (a) the degree of understanding between the staff and PG&E which includes many details documents in Supplement 11, NUREG-0675 and reinforced by extensive informal communication, and (b) the ongoing review of preliminary results, the staff has no basis to conclude that PG&E misunderstands the scope of the targets and their commitments to the NRC.

Action Required

No new action is required in response to this allegation. The ongoing review will continue to take steps to assure that no misunderstandings occur which might be significant to the safe operation of Diablo Canyon.

Problem Statement

Allegation #(s): 3-8 (3,4,5,6,6a,7,8)

ATS No.(s): NRR 83-02

BN(s): BN 83-03 1/7/83

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Problem Statements (use extra sheets as necessary)

Allegation#	Verbatum Statement or Reference
3-8	Issued in SSER 16

All of these items are the responsibility of NRR

Source (Mr Smith 1/83)

3. Seismic Qualification CCW
4. Single Failure Capability CCE
5. Heat Removal Capability CCW
6. I&C Design Classification
6a. Feedwater Isolation Classification
7. Seismic Category I/Category II Interface
8. Seismic Design of Diesel Gen. I and Exh.

Commentary

The enclosed no document NRR 83-02 was supplied to RI for info. and entered into our system on 3-2-84

Date This Statement was Completed 3-16-84

Technical Reviewer Signature

7

NRR 83-02 CCW allegations. Allegation #83-8 3-2-84

ENCLOSURE 2
DIABLO CANYON - ALLEGATION & INVESTIGATION SUMMARY

ALLEGATION NUMBER	DESCRIPTION AND ASSIGNMENT CURRENT STATUS
N.A. NRR-83-02 NRR.	An anonymous person met with NRR personnel and alleged design deficiencies in the Component Cooling Water system. NRR had lead responsibility. This item was closed out by Suppliment 18 to the Safety Evaluation Report (SER).
N.A. GH Done- 50-275/83-34	An NSC Audit of PG&E in 1977 (apparently very critical of Pullman construction work) was introduced by the Governor's representatives on a motion to have construction Quality Assurance hearings. Region V is assigned responsibility to follow-up. The audit and the PG&E response have been examined. Remaining open issues are being examined at the site October 11-14, 1983. The Region V staff does not feel the NSC audit changes the position previously taken by Region V.
N.A. NRR has lead	Allegations of welding and quality assurance deficiencies in "super-strut" material, were initially followed-up by Region V to verify adequate implementation of quality assurance programs and regulatory requirements by the licensee. NRR has responsibility to close remaining design issues with a suppliment to the SER and to inform Region V if any additional requirements are to be placed on "off-the-shelf" material.
N.A. NRR-83-04 NRR has lead	Eight anonymous allegations regarding design were forwarded by the intervenors' attorney to NRR in ~~May~~ June 1983. NRR has repeatedly attempted to talk to the alleger, with no success. NRR has the responsibility to close this issue out, possibly with a suppliment to the SER.
83-18 Wenslawski	An ex-licensee employee alleged that health physics personnel were not qualified to ANSI requirements, the ALARA program was a paper tiger, and some radiation monitors were not sensitive enough. Region V radiation protection inspection staff has the responsibility to follow-up and close-out (if appropriate) these items.
83-28 and	A licensee contrator employee alleged there were deficiencies in the use of "red-head" anchors for

83-33 raceway supports, and that the Foley company was not documenting non-conformance reports issued by field inspectors. The Region V examination of these allegations has resulted in a licensee technical evaluation of the "red-head" anchors, and changes to the Foley procedures to insure all NCRs are documented and dispositioned. These issues will are expected to be closed out in routione Region V inspection reports.

83-34 On September 7, 1983, during the readiness for operations meeting, Ms. S. Silver of the Mothers for Peace raised five issues. These items have been identified to all parties in the NRC meeting minutes. Follow-up responsibility of these items has not been assigned.

83-38 A representative of Governor's received and forwarded anonymous allegations regarding inadequate electrical circuit pull records to NRR. Lead responsibility has been transfered to Region V. This item is scheduled for resolution by October 19, 1983. It is likely that this schedule will slip by two to four weeks due to lack of inspection resources.

83-39 Mr. C. Nieburger, a member of the staff of the San Luis Obispo Telegram-Tribune, informed the Resident Inspoector that he had received allegations that welder qualifications could be purchased. The matter was transfered to the Region V field office of the Office of Investigation on October 13, 1983 to follow-up this item as it related to Diablo Canyon.

83-41 An unsigned letter alleging errors in design and documentation of the Diablo Canyon project (apparently written by project presonnel) was received by the Region V office on October 12, 1983. Lead responsibility was transfered to NRR on October 12, 1983.

83-42 Subsequent to the readiness for operations meeting on September 7, 1983, Ms. S. Silver of the Mothers for Peace, expressed a second-hand allegation regarding pitting of the main steam and feedwater piping. This issue has been verified to be true by the Resident Inspector who has been in contact with Ms. Silver and has obtained a committment from the licensee to complete and engineering evaluation of the pitting problem. This item is expected to be closed out in a routine Region V inspection report.

Task: Allegation or Concern No. 3

ATS No.: NRR-83-02 BN No.: 83-03 (1/7/83)

Characterization

A concern was raised that the pressure boundary of the nonessential loop of the safety-related component cooling water system (CCWS) although not required to function following a safe shutdown earthquake (SSE) was not qualified for the SSE. This loop would therefore fail in an SSE resulting in loss of water and subsequent CCWS failure when a single active failure (to close) is assumed in the isolation valve to the nonessential loop.

Action Required

No further action required on this allegation - refer to SSER 21

Task: Allegation or Concern No. 4

ATS No.: NRR 83-02 BN No.: 83-03 (1/7/83)

Characterization

A concern was raised that a single failure (to close) in the isolation valve to the nonessential loop of the component cooling water system (CCWS) concurrent with a loss of coolant accident (LOCA) would result in an increase in the heat load on the CCW heat exchangers beyond their design heat removal capability because of failure to isolate nonessential heat loads.

Action Required

No further action required on this allegation - refer to SSER 21

Task: Allegation or Concern No. 5

ATS No.: NRR 83-02 BN No.: 83-03 (1/7/83)

Characterization

A concern was raised that with all redundant essential heat loads imposed on the component cooling water system (CCWS) following a loss of coolant accident (LOCA), the CCWS could not remove sufficient heat to maintain the design maximum CCWS temperature and assure a safe shutdown. This is because only one CCW heat exchanger is normally on line and operator action could not be taken soon enough to align the normally isolated redundant CCW heat exchanger prior to exceeding the allowable CCW temperature.

Action Required

No further action required on this allegation - refer to SSER 21

Task: Allegation No. 6

ATS No.: NRR 83-02 BN No.: 83-03 (1/7/83)

Characterization

Instrumentation and controls required to perform safety related functions do not conform to Seismic Category 1 requirements (e.g., component cooling water system surge tank level instrumentation).

Action Required

No further action required on this allegation - refer to SSER 21

Task: Allegation No. 6a

ATS No.: NRR-83-02 BN No.: 83-03 (1/7/83)

Characterization

Instrumentation and controls used to isolate main feedwater flow following a main steamline break are not safety related (i.e., do not conform to Class 1E and seismic requirements).

Action Required

No further action required on this allegation - refer to SSER 21

Task: Allegation or Concern No. 7

ATS No.: NRR-83-02 BN No.: 83-03 (1/7/83)

Characterization

Seismic Category I/Category II interface

Action Required

Information to be supplied by NRR.

Task: Allegation or Concern No. 8

ATS No.: NRR 83-02 BN No.: 83-03 (1/7/83)

Characterization

Seismic design of diesel generator intake and exhaust.

Action Required

Information to be supplied by NRR.

Problem Statement

Allegation #(s): 10-17

ATS No.(s): NRR 83-04

BN(s): 83-48 (4/4/83)

This document lists (or directly references) each allegation or concern brought to the attention of NRC personnel. The purpose of this statement sheet is to assure that all points raised by the alleger are covered.

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Problem Statements (use extra sheets as necessary)

Allegation#	Verbatum Statement or Reference
10, 11, 12, 13, 14, 15, 16, 17	

10. Seismic Tilting of Containment
11. Classification of Platform (Category I/Category II)
12. HELBA did not meet FSAR, RG 1.46
13. Inadequate Seismic Systems
14. Loads on Annulus Structural Steel not Calculated Properly
15. Inadequate Tornado Load Analysis of Turbine Building
16. High Energy Pipe Break Restraint Inadequate
17. NSSS SSE Load Inadequate

Commentary

No information other than the attached PG&E letter exists in RV for this allegation set. These are NRRs responsibility

Date This Statement was Completed 3-16-84 H G Conatty
Technical Reviewer Signature

unknown
Source of
this write-up
Probably Pre'84
ATC

Allegation Topic No. 10

I. Summary of Issue

Deficiency Report concerning generic weld deficiencies for pipe support welds.

II. Summary of PGandE Position

III. Responsible Engineers

L. E. Shipley

IV. Quotation from Affidavit

(Pages 16, 17)

"As a result, I knew the only way to get anything done was to write my own DR's.. I searched out and found the forms one night, made five copies and prepared rough drafts for three DR's. The first involved a subject I had worked on since July on the inadequate design of 2 inaccurate design drawings for, and improper installation and QC inspection of certain welds, particularly flare bevel, flare-V and other partial penetration groove welds. This DR disclosed generic deficiencies for pipe support welding throughout the two units:

"1. The design for flare bevel and flare-V groove welds, typically used on tube steel, specifies the maximum instead of the minimum radius, which is the relevant indicator of quality. Site investigations revealed that the welds had up to 25% smaller radii than American Welding Society minimums. Similarly, the groove welds did not honor American Welding Society (AWS) standards for support steel work, instead relying on Pullman weld procedures designed for piping. As a result, welds were made to preparation angles which failed to meet minimum industry standards and were not full penetration welds as called for by the design. Finally, the procedures for fillet welds were inconsistent with the AWS requirements for control of the weld's dihedral angle. The effect is that the design failed to safeguard against slag in the throat of the weld, which should have solid metal.

"2. The drawings are inaccurate, because they did not reflect the design inadequacies for the welds. The effects include inaccurate use of AWS symbols. For example, the partial welds described above were represented with AWS full penetration symbols. Installation and QC inspection were similarly deficient.

"3. Pullman's pipe weld procedures were not modified to reflect their use on support steel. The inaccurate procedures compromised QC inspections as well. The inspectors did not look for the effects of using the wrong procedure, since they were inspecting to it.

"The welding controversy was due to management's insistence that the American Welding Society requirements did not apply to Diablo Canyon. But management's explanation is self-defeating. Management's alternative standard is the American Institute of Steel Construction (AISC) handbook. Since the AISC section on welded joints references to the AWS code, however, the distinction is irrelevant. I have learned that a transition is underway on-site to follow the AWS code for any new work. Unfortunately, the plant already has been built. This reform omits corrective action for all the existing deficiencies. My Deficiency Report is enclosed as Exhibit 1."

V. DCP Response

The DR (DR 83-041-S) written by Mr. Stokes was investigated and resolved by PGandE in a timely manner, and the installation was found to comply with design requirements. A summary of the dispostion is described below:

A. Flare Bevel and Flave-V Groove Weld Design and Drawing Preparation

Calculations for the effective throat of Flare Bevel and Flare-V Groove welds are per AWS D1.1 Structural Welding Code. In the case of Flare Bevel Welds, the effective throat is taken as 5/16R where R is the Radius of bend. This approach is very conservative and AWS D1.1 recognizes the conservatism of this approach by not requiring qualification.

Had the project desired, even larger effective throats could have been justified per AWS D1.1.

Per AWS Section 2.1.3.1 and documented understandings between Engineering and Construction, dimensions are not required on Flare Groove welds. If dimensions are not provided, the meaning of the symbol is to weld the flare weld out flush with the corners. In this instance it does require a visual inspection per Engineering Standard - Diablo (ESD) 223 Section 6.8.2.6 D to insure that the weld is acceptable.

Management has never stated that this job is not covered by AWS. If any statements were made it would have been that there is no

commitment to comply with all AWS requirements. The design of welds does conform to the requirements of AWS D1.1.

B. Partial and Full Penetration Groove Weld

Bevel Angles are not required to be placed on the weld symbol as it is included with the Weld Procedure Qualification which provides direction to both the welder and weld inspectors. Bevel Angles are qualified as part of the Weld Procedure Qualification and it is therefore not necessary to limit the bevel angles to those given for prequalified welds in AWS D1.1 Figures 2.9.1 and 2.10.1.

Dimensions such as the depth of bevel (S) and effective throat (E) are not required to be placed on the weld symbol per AWS D1.1 Section 2.1.3.1 for complete penetration welds.

C. Skewed Fillet Welds

It is not necessary to adjust the fillet weld leg size to have all the welds in a joint have the same effective throat. Adjustments are made in the weld calculations to account for the varying effective throats and the consideration of the local dihedral angle has been made in the calculations.

Even though fillet weld symbols have been used for dihedral angles less then 60°, calculations are performed to insure that the weld qualifies as a partial penetration weld with the proper throat reduction to weldment thickness calculations. This reduction is in accordance with the requirements of AISC and AWS.

D. Installation and QC Inspection

Pullman Power Products welding procedures do not refer to pipe supports specifically. They do, however, reference the PGandE Specification to which Pipe Supports are to be installed and the codes to which the Weld Procedures are qualified.

Since the weld procedures are qualified, it is not necessary for Pullman QC to inspect the welds to the pre-qualified joints per AWS. The qualified weld procedure contains everything needed to inspect the welded joint. Flare Groove Welds are inspected in accordance with the requirements of ESD 223. All welds require visual inspection.

It is not the intent of, and therefore ESD 223 does not supply, a dimension which can be used to determine the effective throat. It is not necessary for Attachment I of ESD 223 to provide limitations for the minimum dihedral angle for structural shapes. The limitations on the dihedral angle would be governed by the welding procedure used. Throat adjustments are reflected in the weld calculations.

E. Attachment J

Contrary to the allegation, Mark Michaels's paper, which is referred to in Exhibit 1 to the affadavit, is based on a sample of tube steel radii at the plant. It represents the minimum radii found during the sample. This establishes the maximum radii that can be used in engineering calculations.

It is not the purpose of the table in Attachment J to determine effective throat but is used for the purpose of determining if the dimension(s) has been achieved. Calculations for effective throat are then based on that measurement and reduced accordingly.

ATC 2-27-84 alleg. 8

PACIFIC GAS AND ELECTRIC COMPANY

PG&E — 77 BEALE STREET · SAN FRANCISCO, CALIFORNIA 94106 · (415) 781-4211 · TWX 910-372-6587

J. O. SCHUYLER
VICE PRESIDENT
NUCLEAR POWER GENERATION

February 2, 1984

PGandE Letter No.: DCL-84-035

Mr. George W. Knighton, Chief
Licensing Branch No. 3
Division of Licensing
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Re: Docket No. 50-275, OL-DPR-76
Diablo Canyon Unit 1
SSER 21 - Allegation 8

Dear Mr. Knighton:

The purpose of this letter is to inform the NRC Staff that diesel generator intake/exhaust piping support and exhaust silencer mounting brace seismic modifications have been completed.

The FSAR will be updated to reflect that the silencers, filters, piping and pipe supports will perform their required safety function after a Hosgri event.

Kindly acknowledge receipt of this material on the enclosed copy of this letter and return it in the enclosed addressed envelope.

Sincerely,

J. O. Schuyler

cc: J. B. Martin
Service List

B001 1/0

COPY

RECEIVED

Allegation 8

PACIFIC GAS AND ELECTRIC COMPANY

PG&E

77 BEALE STREET, SAN FRANCISCO, CALIFORNIA 94106 TELEPHONE (415) 781-4211

February 2, 1984

PGandE Letter No.: DCL-84-035

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Sincerely,

J. O. Schuyler

TWLibs/COC/JOS:ss

cc: J. B. Martin
Service List

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PACIFIC GAS AND ELECTRIC COMPANY

PG&E — 77 BEALE STREET • SAN FRANCISCO, CALIFORNIA 94106 • (415) 781-4211 • TWX 910-372-6587

J. O. SCHUYLER
VICE PRESIDENT
NUCLEAR POWER GENERATION

February 6, 1984

PGandE Letter No.: DCL-84-041

Mr. George W. Knighton, Chief
Licensing Branch No. 3
Division of Licensing
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Re: Docket No. 50-275, OL-DPR-76
Diablo Canyon Unit 1
SSER 20 Followup Item 29 and SSER 21 Allegation 12
Jet Impingement Loads

Dear Mr. Knighton:

PGandE letter DCL-84-021, dated January 20, 1984, stated that the Staff will be informed of the completion of jet impingement evaluations prior to Diablo Canyon operation in Mode 2, pursuant to SSER 20 Open Item 29. SSER 21 Allegation 12 states that upon completion of the ongoing jet impingement evaluation, PGandE will submit a report to the Staff identifying those targets for which additional protection would be required to meet current Staff criteria. The jet impingement evaluations are complete. A summary of the evaluation results is enclosed. This information should enable the Staff to complete resolution of both SSER 20 Followup Item 29 and SSER 21 Allegation 12.

Kindly acknowledge receipt of this material on the enclosed copy of this letter and return it in the enclosed addressed envelope.

Sincerely,

J O Schuyler

Enclosure

cc: D. G. Eisenhut
H. E. Schierling
Service List

B001
1/1

17

ENCLOSURE

JET IMPINGEMENT LOADS SSER 20 OPEN ITEM 29 AND SSER 21 ALLEGATION 12

1.0 ORGANIZATION AND PURPOSE

This submittal responds to an NRC request for a status report concerning the Diablo Canyon Project (DCP) jet impingement reanalysis program. This program was initially described in PGandE's submittals of September 9 and October 12, 1983.

Section 2.0 provides a brief narrative of the historical development of this issue. Section 3.0 of this report summarizes the results of the program, while Section 4.0 discusses these results in more detail.

2.0 BACKGROUND

The NRC Staff stated in SER Supplement No. 18 (page C.4-29) that the review of jet impingment effects by the DCP and the Independent Design Verification Program (IDVP) had not been completed in that the DCP had not as yet demonstrated that possible jet impingement loads were considered in the design and qualification of safety-related piping and equipment inside containment.

On October 12, 1983, the DCP provided a response which described the jet impingment reanalysis program initiated in response to Error or Open Item (EOI) 7002 of the IDVP. This response demonstrated that the project had met the FSAR commitment on this issue. It also provided a detailed discussion of the status of all jet-target interactions resulting from appropriate consideration of the NRC's more stringent current criteria.

In SER Supplement No. 19 (p. C.4-2), the NRC Staff concluded that the licensee has met the FSAR commitment regarding the consideration of jet impingement loads inside containment, confirming the basis upon which the operating license was originally granted. The Staff also stated that it would "continue its evaluation to assure that the licensee has given appropriate considerations to the more stringent current requirements."

In SER Supplement No. 20 (p. C.4-14), the NRC Staff stated the following:

> "The DCP provided additional information at a meeting on December 6, 1983 regarding the current status of the ongoing evaluation of essential safety-related targets subjected to jet impingment loads. Both the DCP and Westinghouse are conducting these evaluations, which are intended to supplement the information provided by the DCP in the submittal of October 12, 1983. This additional effort includes piping and supports, mechanical and electrical equipment, and conduits and is scheduled to be completed by January 1984. The licensee will inform the staff of the completion prior to Mode 2 (criticality). Any modifications which may be necessary will not likely affect system or components needed for criticality or low power testing. Therefore, it is acceptable to the staff to consider this matter resolved for Step 2. This issue must be fully resolved prior to Step 3, i.e. prior to full power authorization (Mode 1)."

In addition, SER Supplement No. 21 (p. 2-27) requires that, upon completion of the jet impingement evaluation, PGandE will submit a report to the Staff identifying those targets for which additional protection would be required to meet current Staff criteria.

3.0 SUMMARY AND CONCLUSION

The DCP and Westinghouse have completed their jet impingement reanalysis program. Of the 1789 jet-target or whip-target interactions originally identified, all items but one are shown to be acceptable for mitigation of the consequences of the initiating break. The single remaining item involves jet impingement effects on the pressurizer support column which result from a break in the main reactor coolant loop. This item is discussed in Section 4.1.1.2.

No further evaluation of this single jet-target interaction is considered necessary for the following reasons:

a. As supported by the generic material which Westinghouse has submitted to the NRC, it is PGandE's position that these breaks need not be considered. This generic work shows (1) that an existing surface flaw will not grow through the wall, (2) that a through-wall flaw of a significant length will be stable for the most severe loading conditions, and (3) that the postulated and stable through-wall crack will be detected by existing leak-detection devices to allow the plant to be brought to an orderly safe shutdown. This generic work has been determined to be applicble to Diablo Canyon.

b. As discussed in PGandE's October 12 submittal, jet impingement on a single-case basis has such a low probability of occurrence that it is virtually irrelevant to public risk.

In summary, the walkdowns, detailed evaluations, analyses, and mechanistic considerations of jet impingement which comprised the jet impingement reanalysis program provide a validation of the original design. Therefore, no further evaluation effort is considered necessary.

4.0 CURRENT STATUS OF ITEMS IDENTIFIED AS OPEN IN THE OCTOBER 12 SUBMITTAL

The October 12 submittal identified a total of 283 open items which had not been resolved. Since that submittal, 14 new items were added as a result of the redefinition of the accumulator line breaks, bringing the total of open items to 297.

The following sections detail the current status of these 297 items. Consistent with the format in the October 12 submittal, the items are broken into 3 categories: Civil/Structural, Piping, and Others.

4.1 Civil/Structural Targets

The October 12 submittal identified 230 civil/structural target open items divided into two categories: reactor coolant loop breaks and breaks in other lines. Since that submittal, 13 new items were added as a result of the redefinition of the accumulator line breaks, bringing the total to 243.

4.1.1 Reactor Coolant Loop Breaks

In the October 12 submittal, 162 items were identified as civil/structural targets which could be impacted by jets associated with breaks in the main reactor coolant loop piping. The DCP's position was that further consideration of these breaks was unnecessary based on the proposed revision to the NRC position on reactor coolant system pipe breaks as presented by the Staff to the ACRS. The DCP continues to maintain this position, as discussed in Section 3.0.

Regardless of the above position, the DCP evaluated each of these items for the purpose of demonstrating the safety margin inherent in the Diablo Canyon design. The evaluations performed by Westinghouse and the DCP are discussed below.

4.1.1.2 Analyses by Westinghouse

Westinghouse analyzed 92 of the 162 reactor coolant loop break-target interactions (items) primarily to determine the effects of these jets on reactor coolant system supports. The results are as follows:

66 items - analysis determined that resulting stresses were found to be acceptable.

22 items - further safety evaluation determined that the target was not required to maintain the ability to mitigate the consequences of the initiating break. (If a main loop break were to be postulated simultaneously with a design basis seismic event, four items in this group would require recategorization. These involve a jet interaction with a steam generator seismic support in each of four steam generator compartments. Based on the inappropriateness of this unrealistic event combination, these items are considered resolved.)

3 items - further inspection of break and target geometry determined that the jet would not impact the target.

1 item - one pressurizer support column is overstressed; however, further evaluation of this single jet-target interaction involving overstress is not considered necessary as discussed in Section 3.0.

4.1.1.3 Analyses by DCP

The DCP analyzed the remaining 70 of the 162 reactor coolant loop break-target interactions (items) to determine effects on structural targets which do not directly support the reactor coolant system. Stress analyses, onsite assessments, and/or safety evaluations determined that all 70 items are acceptable.

4.1.2 Breaks in Other Lines (Analysis by Westinghouse and DCP)

In the October 12 submittal, 68 items were identified as civil-structural targets associated with breaks in lines other than the reactor coolant loop. Since that submittal, 13 additional items were identified as a result of the redefinition of the accumulator line breaks, bringing the total to 81 items.

Westinghouse analyzed 34 of these items, primarily to determine the effects of these jets on reactor coolant system supports. The DCP analyzed the remaining 47 items. Stress analyses, onsite assessments, and/or safety evaluations determined that all 81 items are acceptable.

4.2 Piping Targets

In the October 12 submittal, 48 open items were identified as cases where jets could impact piping targets. Since that submittal, one new item has been added as a result of the redefinition of the accumulator line breaks, bringing the total to 49. All 49 items have been analyzed by the DCP. For 48 items, the resulting pipe stresses are within allowables. For the remaining case, the results of the analyses show that the line (a 1-inch RTD line) would be overstressed. However, an additional safety evaluation by Westinghouse determined that the consequences of a failure of this line as a result of the initiating break is bounded by the current accident analysis.

4.3 Other Cases (Main Feedwater Line Breaks)

In the October 12 submittal, five open items were identified which required an analysis of the containment pressure/temperature response to a feedwater line break in which one fan cooler was disabled by a jet. The analyses were performed by Westinghouse assuming the most limiting single failure in addition to loss of offsite power. The results of the analyses demonstrated that the containment pressure/temperature response to feedwater breaks with two fan coolers operable are bounded by the design basis accident analysis which assumes a LOCA blowdown with three fan coolers operable.

GOVERNMENT ACCOUNTABILITY PROJECT
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January 9, 1984

HAND-DELIVERED 9 January 1984

FREEDOM OF INFORMATION ACT REQUEST
FOIA-84-21
Rec'd 1-10-84

Director
Office of Administration
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

To Whom It May Concern:

Pursuant to the Freedom of Information Act (FOIA), 5 U.S.C. §552, the Government Accountability Project (GAP) of the Institute for Policy Studies, requests copies of any and all agency records and information, including but not limited to notes, letters, memoranda, drafts, minutes, diaries, logs, calendars, tapes, transcripts, summaries, interview reports, procedures, instructions, engineering analyses, drawings, files, graphs, charts, maps, photographs, agreements, handwritten notes, studies, data sheets, notebooks, books, telephone messages, computations, voice recordings, and any other data compilations, interim and/or final reports, status reports, and any and all other records relevant to and/or generated in connection with the Safety Evaluation Report related to the operation of the Diablo Canyon Nuclear Power Plant, Units 1 and 2, NUREG-0675, Supplement No. 21 (December, 1983) ("SSER 21"). This includes, but is not limited to, any and all NRR regulations, calculations, and judgments used to evaluate any of the allegations referred to in SSER 21. We request that each responsive document be identified by the allegation number(s) to which it may relate.

If any of the material covered by this request has been destroyed and/or removed, please provide all surrounding documentation, including but not limited to a description of the action(s) taken, relevant date(s), and justification(s) for the action(s).

GAP requests that fees be waived, because "finding information can be considered as primarily benefitting the general public," 5 U.S.C. §552(a)(4)(A). The Government Accountability Project is a non-profit, non-partisan public interest organization concerned with honest and open government. Through legal representation, advice, national conferences, films, publications and public outreach, the Project promotes whistleblowers as agents of government accountability. Through its Citizens Clinic, GAP offers assistance to local public interest and citizens groups who seek to ensure the health and safety of their communities. The Citizens Clinic is currently assisting citizens groups in the California area concerning the Diablo Canyon Nuclear Power Plant.

For any documents or portions that you deny due to a specific FOIA exemption, please provide an index itemizing and describing the documents or portions of documents withheld. The index should provide a detailed justification of your grounds for claiming each exemption, explaining why each exemption is relevant to the document or portion of the document withheld. This index is required under

Vaughn v. Rosen (I), 484 F.2d 820 (D.C.Cir. 1973), cert. denied, 415 U.S. 977 (1974).

We look forward to your response to this request within ten days.

Very truly yours,

Billie Pirner Garde

Billie Pirner Garde
Citizens Clinic Director

BPG:me