

DIABLO CANYON NUCLEAR POWER PLANT
INDEPENDENT DESIGN VERIFICATION PROGRAM
SEMIMONTHLY REPORT
TES - SM - MARCH
MARCH 11, 1983

UNCONTROLLED COPY

PREPARED BY:
TELEDYNE ENGINEERING SERVICES
IDVP PROGRAM MANAGER

TES SEMIMONTHLY REPORT

MARCH 11, 1983

This document includes, in numerical order, all Open Item Report System Forms issued by TES since our Second Friday Semimonthly Report of February 11, 1983.

As required by DCNPP-IDVP-PP-005, individuals assigned by this organization to the IDVP have completed an acceptable Statement Regarding Potential or Apparent Conflicts of Interest.

Appendix A to this document is a "Lookahead Report" as requested by the Commission in its September 29, 1982 letter (Denton to Cooper). This Report is intended to provide a schedule (as presently known) of events occurring before the next Second Friday Semimonthly Report. These events include:

1. DCNPP site visits by the IDVP team.
2. Anticipated meetings where all IDVP participants and designated interested parties have been or will be notified.
3. Significant IDVP events, such as the issuance of an ITR.

Also included in Appendix A is the IDVP schedule relative to DCNPP-1 3-Step Licensing. This schedule provides IDVP report dates for fuel load, low power, and full power.

OPEN ITEM REPORT

File No. 1002

File Revision No. 6

1. Date reported to PG&E and RLCA 830308
2. Scheduled for TES (Originator) Semimonthly Report No. March
3. Responsive to PG&E Technical Program: Task _____ (if applicable)
4. Prepared as a result of:
 - a. ☐ QA Audit and Review Report of _____
 - b. ☐ Field Inspection Deficiency
 - c. ☐ Independent Calculation Deficiency
 - d. ☐ Seismic Input Deficiency
 - e. ☐ Design Methodology Deficiency
 - f. ☒ Other ~~Deficiency~~ Downgrade of Error B
5. Structure(s), system(s) or component(s) involved:

HVAC Components

6. Description of Concern:

EOI 1002, Revision 0: Calculations for Supply Fans S67, 68, and 69 were found to have used incorrect and unconservative seismic inputs. In addition, the forced draft shutter damper qualification showed incorrect seismic definition because gravity had not been added to the vertical acceleration.

7. Significance of Concern:

PG&E Completion Sheet (R. R. Fray on 7/15/83): No physical modifications required.

EOI 1002, Revision 3: RLCA has reviewed the qualification analyses and has verified that the Fans and Damper were not modified as a result of EOI 1002 (Class B Error). Closed Item.

8. Recommendation:

Based on the PG&E response and the RLCA verification that no modification was required as a result of that EOI 1002, RLCA should consider issuing a Potential Program Resolution Report in which the Error B is downgraded to an Error C and the File closed out. Refer to Paragraph 5.1.2 of the January 1983 IDVP Semimonthly Status Report for downgrading procedure.

9. Signature: R. R. Fray 830308 (Originator/Organization)

OPEN ITEM REPORT

File No. 1028

File Revision No. 6

1. Date reported to PG&E and RLCA 830309
2. Scheduled for TES (Originator) Semimonthly Report No. March
3. Responsive to PG&E Technical Program: Task _____ (if applicable)
4. Prepared as a result of:

- a. ☐ QA Audit and Review Report of _____
b. ☐ Field Inspection Deficiency
c. ☐ Independent Calculation Deficiency
d. ☐ Seismic Input Deficiency
e. ☐ Design Methodology Deficiency
f. ☒ Other ~~Deficiency~~ Information from PG&E

5. Structure(s), system(s) or component(s) involved:

Buildings, HVAC Ducts, Electrical Raceways, Mechanical Equipment, HVAC Equipment, and Piping.

6. Description of Concern:

Method of combining torsion in seismic analysis.

7. Significance of Concern:

8. Recommendation:

RLCA to review DCP Completion Sheet, signed 830225, and provide a recommendation for future disposition.

9. Signature: NE Cogan 830309 (Originator/Organization)

File No. 1080
File Revision No. 3

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☐ File Revision No. _____ is a Program Resolution Report which recategorized this item as a Closed Item.

☒ The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. 2, which recategorized this item as ~~a Class C Error~~ a Class C Error. The PG&E document so informing the IDVP is DCP Resolution & Completion Sheets - R.R. Fray 830211.

2. Signature: R. Wray for W. E. Cooper 830215
Approved/Program Manager

File No. 1081
File Revision No. 3

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☐ File Revision No. _____ is a Program Resolution Report which recategorized this item as a Closed Item.

☒ The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. 2, which recategorized this item as ~~EXCLUDED~~ a Class C ~~XXXXXXXXXX~~ Error. The PG&E document so informing the IDVP is DCP Resolution & Completion Sheets - R.R. Fray 830211.

2. Signature: R. Wray for W. E. Cooper 830215
Approved/Program Manager

File No. 1084
File Revision No. 4

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☐ File Revision No. _____ is a Program Resolution Report which recategorized this item as a Closed Item.

☒ The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. 3, which recategorized this item as ~~XXXXXX Deviation XXXX~~ a Class C ~~or XXXXXXXX~~ Error. The PG&E document so informing the IDVP is DCP Resolution & Completion Sheets - R.R. Fray 830211.

2. Signature: R. Wray for W.E. Cooper 830215
Approved/Program Manager

File No. 1085
File Revision No. 4

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☐ File Revision No. _____ is a Program Resolution Report which recategorized this item as a Closed Item.

☒ The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. 3, which recategorized this item as ~~either a Deviation or a Class C or Class D Error~~ a Class C ~~or Class D~~ Error. The PG&E document so informing the IDVP is DCP Resolution & Completion Sheets - R.R. Fray 830211.

2. Signature: R. Wray for W. E. Cooper 830215
Approved/Program Manager

File No. 1086
File Revision No. 3

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☐ File Revision No. _____ is a Program Resolution Report which recategorized this item as a Closed Item.

☒ The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. 2, which recategorized this item as ~~XXXXXXXXXXXXXXXXXXXX~~ a Class C ~~XXXXXXXXXX~~ Error. The PG&E document so informing the IDVP is DCP Resolution & Completion Sheets - R.R. Fray 830211.

2. Signature: R. Wray for W.C. Cooper 830215
Approved/Program Manager

PROGRAM RESOLUTION REPORT

File No. 1095

File Revision No. 5

1. Resolution of an: ☒ Open Item: ☐ Class _____ Error _____
2. Independent Design Verification Program Resolution is as:
 - a. ☒ Closed Item
 - b. ☐ Deviation
 - c. ☐ Open Item with future action by PG&E: Task _____
3. Date Reported to PG&E 830308
4. Scheduled for TES Semimonthly Report No. March
5. Resolution based on the following documentation:

EOI 1095 Revision 4: The spectra associated with the input time history (TH) for the auxiliary building obtained from URS/Blume (P105-4-441-004) may not conservatively envelope the Hosgri ground design spectra at certain frequencies. This concern gives rise to the potential that the floor response spectra obtained from the input TH may not be conservative at all frequencies.

6. Program Resolution is:

Based on a study by RLCA, it was determined that the time history satisfies the intent of NRC Standard Review Plan (Section 3.7.1). Therefore, the IDVP finds that the spectra from the input time history provides an acceptable fit to the design basis spectra. The file is closed.

7. Potential Program Resolution
Report signed by Edward Denison (RLCA) on 830224
Type Name/Organization Date
8. Signature: R. Wang for W.L. Cooper 830308 (Approved/Program Manager)

File No. 1095
File Revision No. 6

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☒ File Revision No. 5 is a Program Resolution Report which recategorized this item as a Closed Item.

☐ The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. , which recategorized this item as either a Deviation or as a Class C or Class D Error. The PG&E document so informing the IDVP is

2. Signature: *R. Wray for W. F. Cooper* 830308
Approved/Program Manager

File No. 1096
File Revision No. 6

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☐ File Revision No. _____ is a Program Resolution Report which recategorized this item as a Closed Item.

☒ The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. 5, which recategorized this item as ~~either a Design/Analysis or a Class C Design Error~~ a Class C ~~Design~~ Error. The PG&E document so informing the IDVP is DCP Completion Sheet by R. R. Fray February 15, 1983.

2. Signature: *R E Boyer* 830225
Approved/Program Manager

ERROR REPORT

File No. 1098

Class: A or B
A,B,C or D

File Revision No. 7

PG&E Task No. 70210

1. Dates: Reported to Program Review Committee NA
Program Review Committee Action NA
Reported to PG&E and Originator 830225
2. Scheduled for TES Semimonthly Report No. March
3. Structure(s), system(s), or component(s) involved: _____

CVCS Separator/Stabilizer.

4. Description of Error:

The design analysis 8-25 modeled the CVCS separator/stabilizer support as an X and Y translational restraint. RLCA field verification shows this support as an X and Y translational and X and Z rotational restraint.

5. Significance of Error:

The separator/stabilizer was qualified as an "in-line" piping component. Design analysis 8-25 does not record the correct anchor bolt loads on the separator/stabilizer.

6. Recommendation:

Based on PG&E presentations of their technical program, this file is combined with files 961, 1021, 1058, 1059, 1060, and 1104 as an Error Class A or B.

The inclusion of file 1060 and 1104 into this file was achieved by Program Review Committee action.

All concerns of the above mentioned files will be reviewed under this file.

Revision 6 was issued to reflect the inclusion of file 6001.

Revision 7 was issued to reflect the inclusion of files 1115 and 6002.

7. Potential Error Report signed by NA on NA
Type Name/Organization Date
8. Signatures: NA 830225
For Program Review Committee Approved/Program Manager

PROGRAM RESOLUTION REPORT

File No. 1099

File Revision No. 5

1. Resolution of an: ☒ Open Item: ☐ Class _____ Error _____
2. Independent Design Verification Program Resolution is as:
 - a. ☐ Closed Item
 - b. ☒ Deviation
 - c. ☐ Open Item with future action by PG&E: Task _____
3. Date Reported to PG&E 830225
4. Scheduled for TES Semimonthly Report No. March
5. Resolution based on the following documentation:

PG&E drawing 463683 Revision 6 shows 3/4 inch stiffener plates on the north side of the fixed support. RLCA field verification shows that the north side of the fixed end support of the CCW HX 1-2 does not include these plates. CCW HX 1-1 includes these supports.

The design analysis is not affected by this drawing deviation because the simplified dynamic model does not include these stiffener plates. The design stress analysis adequately considers the true configurations.

6. Program Resolution is:

Drawing 463683 has been revised - Deviation

7. Potential Program Resolution
Report signed by E. Denison/RLCA cn 830216
Type Name/Organization Date
8. Signature: 28607-830216 (Approved/Program Manager)

File No. 1099
File Revision No. 6

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☐ File Revision No. _____ is a Program Resolution Report which recategorized this item as a Closed Item.

☒ The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. 5, which recategorized this item as ~~either~~ a Deviation ~~or as a Class C or Class D Error~~. The PG&E document so informing the IDVP is PG&E Completion sheet dated 821018.

2. Signature: NE Boy 830215
Approved/Program Manager

File No. 1102
File Revision No. 7

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☐ File Revision No. _____ is a Program Resolution Report which recategorized this item as a Closed Item.

☒ The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. 6, which recategorized this item as ~~either a Denial or a Class C or Class D Error~~ a Class C or Class D Error. The PG&E document so informing the IDVP is DCP Completion Sheet by R. R. Fray February 14, 1983.

2. Signature: W. E. Boye 830225
Approved/Program Manager

OPEN ITEM REPORT

File No. 1107File Revision No. 3

1. Date reported to PG&E and RLCA 830309
2. Scheduled for TES (Originator) Semimonthly Report No. March
3. Responsive to PG&E Technical Program: Task _____ (if applicable)
4. Prepared as a result of:
a. ☐ QA Audit and Review Report of _____
b. ☐ Field Inspection Deficiency
c. ☒ Independent Calculation Deficiency
d. ☐ Seismic Input Deficiency
e. ☐ Design Methodology Deficiency
f. ☐ Other Deficiency
5. Structure(s), system(s) or component(s) involved:

Piping Additional Sample 110

6. Description of Concern:

- a. RLCA field verified and modeled two valves (including 1-8068A) attached to the 3/4 inch vent line from line 3488. The design analysis and schematic drawing (P and ID) 102007, Sheet 5, Revision 8 shows one valve in this vent line.
- b. RLCA field verified two supports on line 4259 to be deadweight only. The design analysis shows these supports as rigid vertical supports (previously identified concern 79-14 program).
- c. The verification analysis used a value of 2.1 for the socket weld connection SIF. The design analysis used 1.0.

7. Significance of Concern:

The stresses calculated in the verification analysis exceed the allowable values in two separate areas of piping.

For Item b above, the reasons for the differences were identified as generic concerns in ITR No. 12, Revision 0.

8. Recommendation:

Based on PG&E Resolution Sheet for File 1107, Revision 2 dated R. R. Fray 830218, RLCA to review the new design analysis (7-103) which has superseded the previous design analysis 7-1. This new analysis (7-103) has addressed all three items above.

9. Signature: R. E. Coyle (Originator/Organization)

OPEN ITEM REPORTFile No. 1108

RLCA

File Revision No. 4

1. Date reported to PG&E and YES
2. Scheduled for TES (Originator) Semimonthly Report No. March
3. Responsive to PG&E Technical Program: Task (if applicable)
4. Prepared as a result of:
 - a. ☐ QA Audit and Review Report of
 - b. ☐ Field Inspection Deficiency
 - c. ☒ Independent Calculation Deficiency
 - d. ☐ Seismic Input Deficiency
 - e. ☐ Design Methodology Deficiency
 - f. ☐ Other Deficiency
5. Structure(s), system(s) or component(s) involved:
RLCA Piping Sample 110
Design Analysis 7-1 Revision 5

6. Description of Concern:

The design analysis of the RTD lines does not include the effects of the attachment to the reactor coolant system at the following locations:

Line 1141 node 515, line 1140 node 107, line 1137 node 27,
line 1136 node 12, and line 1138 node 1.

7. Significance of Concern:

EOI 1107 notes an overstress in the verification analysis. This overstress is not caused by the inclusion of these SAM effects in the verification analysis. The licensing criteria does not address small bore piping attached to the reactor coolant system.

Revision 3:

Open Item with future action by PG&E - clarify the licensing criteria with respect to small bore piping attached to the RCS.

8. Recommendation:

Based on PG&E Resolution Sheet for File 1108, Revision 3 (revised copy) dated R. R. Fray 830218, RLCA to review the new design analysis (7-103) which has superseded the previous design analysis 7-1. This new analysis (7-103) has included the appropriate anchor movements.

9. Signature: W. E. Coen 830304 (Originator/Organization)

OPEN ITEM REPORT

File No. 1110

RLCA
~~TES~~ 830225

File Revision No. 3

1. Date reported to PG&E and ~~TES~~ 830225
2. Scheduled for TES (Originator) Semimonthly Report No. March
3. Responsive to PG&E Technical Program: Task _____ (if applicable)
4. Prepared as a result of:
 - a. ☐ QA Audit and Review Report of _____
 - b. ☐ Field Inspection Deficiency
 - c. ☐ Independent Calculation Deficiency
 - d. ☐ Seismic Input Deficiency
 - e. ☐ Design Methodology Deficiency
 - f. ☐ Other Deficiency

5. Structure(s), system(s) or component(s) involved:

Class 1 36" x 16" Rectangular HVAC duct from Fan S-69 to 4.16 KV switchgear.

6. Description of Concern:

New calculations provided with PGandE Resolution and Completion Sheets, Revision 2.

7. Significance of Concern:

Further file action by the IDVP may be warranted.

8. Recommendation:

RLCA to review DCP submittal and submit a file revision or recommendation to the IDVP Program Manager.

9. Signature: *V. E. Coyle* 830225 (Originator/Organization)

Class: $\frac{C}{A, B, C \text{ or } D}$

File Revision No. 5
PG&E Task No.

- Class 1 36" X 16" Rectangular HVAC duct from Fan S-69 to 4.16KV Switchgear.

Field inspection shows the angles not to be installed.

RLCA independent calculations show all stresses to be below the allowables P105-4-560-00i, Revision 1.

Error Class C.

- 18a-

OPEN ITEM REPORT

File No. 1112

RLCA

File Revision No. 3

1. Date reported to PG&E and ~~TES~~ 830215
2. Scheduled for TES (Originator) Semimonthly Report No. March
3. Responsive to PG&E Technical Program: Task _____ (if applicable)
4. Prepared as a result of:
 - a. ☐ QA Audit and Review Report of _____
 - b. ☐ Field Inspection Deficiency
 - c. ☐ Independent Calculation Deficiency
 - d. ☐ Seismic Input Deficiency
 - e. ☐ Design Methodology Deficiency
 - f. ☒ Other ~~Deficiency~~ DCP Completion Sheet (R. R. Fray) January 18, 1983
5. Structure(s), system(s) or component(s) involved:

Soils - Intake Structure

6. Description of Concern:

Borings 18 through 22 included in the May 1968 Harding-Miller-Lawson & Associates Soils Report are shown on the site plan and subsurface section (Plate I-1) to be in the intake line area (Section A-A, Plate I-1). The boring logs included in the report note that these borings are in the discharge line area (Section B-B, Plate I-1).

7. Significance of Concern:

8. Recommendation:

RLCA and TES to review response in DCP Completion Sheet by R. R. Fray dated January 18, 1983 and disposition this file.

9. Signature: *R. R. Fray* 830215 (Originator/Organization)

PROGRAM RESOLUTION REPORT

File No. 1112

File Revision No. 5

1. Resolution of an: ☒ Open Item: ☐ Class _____ Error _____
2. Independent Design Verification Program Resolution is as:
 - a. ☐ Closed Item
 - b. ☒ Deviation
 - c. ☐ Open Item with future action by PG&E: Task _____
3. Date Reported to PG&E 830222
4. Scheduled for TES Semimonthly Report No. March
5. Resolution based on the following documentation:

Borings 18 through 22 included in the May 1968 Harding-Miller-Lawson & Associates Soils Report are shown on the site plan and subsurface section (Plate I-1) to be in the intake line area (section A-A, Plate I-1). The boring logs included in the report note, that these borings are in the discharge line area (section B-B, Plate I-1). Based on the PGandE completion sheet (P105-4-1112-003), the boring logs included in the report are incorrectly labeled.

6. Program Resolution is:

Deviation.

7. Potential Program Resolution
Report signed by Edward Denison (RLCA) on 830215
8. Signature: *W.C. Boye* 830222 (Approved/Program Manager)

File No. 1112
File Revision No. 6

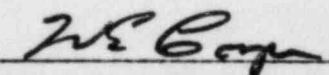
IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☐ File Revision No. _____ is a Program Resolution Report which recategorized this item as a Closed Item.

☒ The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. 5, which recategorized this item as either a Deviation ~~XXXXXXXXXXXX~~ ~~XXXXXXXXXXXX~~. The PG&E document so informing the IDVP is Completion Sheet by R. R. Fray 830118 in response to file revision 2.

2. Signature:  830222
Approved/Program Manager

ERROR REPORT

File No. 1114

Class: C
A,B,C or D

File Revision No. 2

PG&E Task No. _____

1. Dates: Reported to Program Review Committee N/A
Program Review Committee Action _____
Reported to PG&E and Originator _____
2. Scheduled for TES Semimonthly Report No. March
3. Structure(s), system(s), or component(s) involved:
Auxiliary Saltwater Pump

4. Description of Error:

The design analysis for the auxiliary saltwater pump does not consider the virtual mass contribution of the water surrounding on the submerged pump casing.

5. Significance of Error:

The verification analysis considered the virtual water mass contribution and found all stresses to be below the allowable.

6. Recommendation:

Error Class C.

7. Potential Error Report signed by E. Denison/RLCA on 830215
Type Name/Organization Date
8. Signatures: N/A R. Whay for W. B. Cooper 830215
For Program Review Committee Approved/Program Manager

PROGRAM RESOLUTION REPORT

File No. 1115

File Revision No. 2

1. Resolution of an: ☒ Open Item: ☐ Class _____ Error _____
2. Independent Design Verification Program Resolution is as:
 - a. ☒ Closed Item
 - b. ☐ Deviation
 - c. ☐ Open Item with future action by PG&E: Task _____
3. Date Reported to PG&E 830225
4. Scheduled for TES Semimonthly Report No. March
5. Resolution based on the following documentation:

Phase I Independent Calculations - Pipe Supports.

The PGandE Phase I Report provides for a complete review of all design Class I large bore pipe supports by the DCP. Comparison of IDVP independent calculations for the initial sample to superseded DCP work will not provide meaningful results.

6. Program Resolution is:

This item combines with EOI File 1098 as an Error Class A/B. The IDVP will review the DCP current activities as detailed in ITR #8, Revision 0.

7. Potential Program Resolution
Report signed by Edward Denison (RLCA) on 830216
Type Name/Organization Date
8. Signature: *NE Boy* 830225 (Approved/Program Manager)

File No. 1115
File Revision No. 3

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☒ File Revision No. 2 is a Program Resolution Report which recategorized this item as a Closed Item.

☐ The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. _____, which recategorized this item as either a Deviation or as a Class C or Class D Error. The PG&E document so informing the IDVP is _____.

2. Signature: *H. E. Gentry* 830225
Approved/Program Manager

PROGRAM RESOLUTION REPORT

File No. 1116

File Revision No. 2

1. Resolution of an: ☒ Open Item: ☐ Class _____ Error _____
2. Independent Design Verification Program Resolution is as:
 - a. ☒ Closed Item
 - b. ☐ Deviation
 - c. ☐ Open Item with future action by PG&E: Task _____
3. Date Reported to PG&E 830222
4. Scheduled for TES Semimonthly Report No. March
5. Resolution based on the following documentation:

P105-4-530-001, Revision 0.

Results of Design Analysis and Verification Analysis for Main Steam Isolation Valve, FCV-41 differ by more than 15%. Design analysis determined acceptable acceleration to satisfy stress criteria. Verification analysis applied Hosgri qualification acceleration levels and compared stresses to stress criteria.

All calculated stresses are below the allowable values.

6. Program Resolution is:

Closed Item.

7. Potential Program Resolution
Report signed by E. Denison (RLCA) on 830218
Type Name/Organization Date
8. Signature: E. Denison 830222 (Approved/Program Manager)

File No. 1116
File Revision No. 3

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☒ File Revision No. 2 is a Program Resolution Report which recategorized this item as a Closed Item.

☐ The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. , which recategorized this item as either a Deviation or as a Class C or Class D Error. The PG&E document so informing the IDVP is

2. Signature: W E Gage 830222
Approved/Program Manager

PROGRAM RESOLUTION REPORT

File No. 6002

File Revision No. 2

1. Resolution of an: ☒ Open Item: ☐ Class _____ Error _____
2. Independent Design Verification Program Resolution is as:
 - a. ☒ Closed Item
 - b. ☐ Deviation
 - c. ☐ Open Item with future action by PG&E: Task _____
3. Date Reported to PG&E 830210
4. Scheduled for TES Semimonthly Report No. February
5. Resolution based on the following documentation:

IDVP Phase II Initial Sample: Rupture Restraints

Diablo Canyon letter DCVP-TES-748 describes a program for reanalysis of rupture restraints on a sampling basis to assure conformance with the licensing criteria.

This DCP program provides for reanalysis of a sample of rupture restraints larger than the initial sample planned by the IDVP.

6. Program Resolution is:

This item combines with EOI 1098 as an Error Class A or B. The IDVP will prepare a program similar to ITR-8, Revision 0, "Verification of DCP Corrective Action" for verification of Phase II rupture restraints through review of the DCP current activities.

7. Potential Program Resolution
Report signed by Edward Denison/RLCA on 830204
Type Name/Organization Date
8. Signature: NE Denison 830215 (Approved/Program Manager)

File No. 6002
File Revision No. 3

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☒ File Revision No. 2 is a Program Resolution Report which recategorized this item as a Closed Item.

☐ The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. _____, which recategorized this item as either a Deviation or as a Class C or Class D Error. The PG&E document so informing the IDVP is _____.

2. Signature:

NE Gage 830215
Approved/Program Manager

OPEN ITEM REPORT

File No. 7003

RFR

File Revision No. 3

830304

1. Date reported to PG&E and ~~XXX~~ 830304
2. Scheduled for TES (Originator) Semimonthly Report No. March
3. Responsive to PG&E Technical Program: Task 70320 (if applicable)
4. Prepared as a result of:
 - a. ☒ QA Audit and Review Report of PGandE
 - b. ☐ Field Inspection Deficiency
 - c. ☐ Independent Calculation Deficiency
 - d. ☐ Seismic Input Deficiency
 - e. ☐ Design Methodology Deficiency
 - f. ☐ Other Deficiency
5. Structure(s), system(s) or component(s) involved:

Containment Isolation System.

6. Description of Concern:

See Revision 0.

7. Significance of Concern:

See Revision 0.

8. Recommendation:

RFR and TES on 3/2/83 reviewed the DCP Completion Sheet, signed 2/7/83, and agreed that TES would open the item, that RFR would submit a PPRR/CI to TES and that TES would issue a Completion Report.

9. Signature: *N. E. Gay* 830304 (Originator/Organization)

PROGRAM RESOLUTION REPORT

File No. 7003

File Revision No. 5

1. Resolution of an: ☒ Open Item: ☐ Class _____ Error _____
2. Independent Design Verification Program Resolution is as:
 - a. ☒ Closed Item
 - b. ☐ Deviation
 - c. ☐ Open Item with future action by PG&E: Task _____
3. Date Reported to PG&E 830309
4. Scheduled for TES Semimonthly Report No. March, 1983
5. Resolution based on the following documentation:
 - a. EOI 7003, Rev. 4 as a PPRR/CI
 - b. DCP Completion Sheet signed Feb. 19, 1983

6. Program Resolution is:

The DCP response resolves the concern

7. Potential Program Resolution
Report signed by F. Greenwood on 830309
8. Signature: *F. Greenwood* 830309 (Approved/Program Manager)

File No. 7003
File Revision No. 6

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☒ File Revision No. 5 is a Program Resolution Report which recategorized this item as a Closed Item.

☐ The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. , which recategorized this item as either a Deviation or as a Class C or Class D Error. The PG&E document so informing the IDVP is
_____.

2. Signature: NE George 8/2/05
Approved/Program Manager

ERROR REPORT

File No. 8001

Class: A/B
A,B,C or D

File Revision No. 3

PG&E Task No. _____

1. Dates: Reported to Program Review Committee NA
Program Review Committee Action NA
Reported to PG&E and Originator 830225
2. Scheduled for TES Semimonthly Report No. March
3. Structure(s), system(s), or component(s) involved: _____

Evaluation of Environment Outside Containment.

4. Description of Error:

EOI files 7004, 7005, 8003, 8006, 8033, and 8034 each addresses a specific aspect of this concern.

5. Significance of Error:

The DCP is reevaluating the environment which results from postulated pipe breaks outside of containment. This work will be verified by the ITP in accordance with ITR-34.

6. Recommendation:

The file revision is issued to provide a generic title and to combine EOI files 7004, 7005, 8003, 8006, 8033, and 8034 with 8001. These other files will be closed and all concerns tracked by 8001.

7. Potential Error Report signed by NA on NA
Type Name/Organization Date
8. Signatures: NA 206 830225
For Program Review Committee Approved/Program Manager

OPEN ITEM REPORTFile No. 8002SWEC
~~TES~~ 830225File Revision No. 10

1. Date reported to PG&E and ~~TES~~ 830225
2. Scheduled for TES (Originator) Semimonthly Report No. March
3. Responsive to PG&E Technical Program: Task _____ (if applicable)
4. Prepared as a result of:

- a. ☐ QA Audit and Review Report of _____
b. ☐ Field Inspection Deficiency
c. ☐ Independent Calculation Deficiency
d. ☐ Seismic Input Deficiency
e. ☐ Design Methodology Deficiency
f. ☒ Other ~~Deficiency~~ - See Below

5. Structure(s), system(s) or component(s) involved:

Evaluation of environment in Turbine Building.

6. Description of Concern:

Revision 2 and 5 classified this file as an ER/AB. Subsequent review indicated that this aspect was not a concern because at the time of the original work all NRC required break sizes were considered. If Revision 5 had been issued as a PRR/OIP, this information would have been developed and no error indicated.

7. Significance of Concern:

Revision 8 and 9 to this file did not follow the proper procedures for indicating that this item was downgraded from an error to a closed item. That procedure requires issuance of a PRR/OIP, or a similar form, before issuance of a PRR/CI or Completion Report.

8. Recommendation:

- A. File revisions 8 and 9 are voided.
B. File revision 11 will be issued to indicate downgrading, then the file will be closed.

9. Signature: N. E. Bogan 830225 (Originator/Organization)

PROGRAM RESOLUTION REPORT

File No. 8002

File Revision No. 11

- Downgrading
1. ~~Resolution~~ of an: ☐ Open Item: ☒ Class A/B Error
2. Independent Design Verification Program Resolution is as:
a. ☐ Closed Item
b. ☐ Deviation
c. ☒ Open Item with future action by PG&E: Task 70221
3. Date Reported to PG&E 830225
4. Scheduled for TES Semimonthly Report No. March
5. Resolution based on the following documentation:

EOI File 8002, Revision 5 and Revision 7.

DCP Completion Sheet signed 830115.

6. Program Resolution is:

This item is downgraded from an ER/AB to a Closed Item.

No DCP action is required.

7. Potential Program Resolution
Report signed by F. Sestak (SWEC) on 830131
8. Signature: *W. P. Cooper* 830225 (Approved/Program Manager)
Type Name/Organization Date

PROGRAM RESOLUTION REPORT

File No. 8002

File Revision No. 12

1. Resolution of an: ☒ Open Item: ☐ Class Error
2. Independent Design Verification Program Resolution is as:
 - a. ☒ Closed Item
 - b. ☐ Deviation
 - c. ☐ Open Item with future action by PG&E: Task
3. Date Reported to PG&E 830225
4. Scheduled for TES Semimonthly Report No. March
5. Resolution based on the following documentation:

EOI File 8002, Revisions 5, 7, and 11.

DCP Completion Sheet signed 830115.

6. Program Resolution is:

This file was downgraded from an ER/AB to a Closed Item because at the time the original analysis was performed all NRC required break sizes were considered.

7. Potential Program Resolution
Report signed by NA on NA
8. Signature: *W. E. Boyer* 830225 (Approved/Program Manager)
Type Name/Organization Date

File No. 8002
File Revision No. 13

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☒ File Revision No. 12 is a Program Resolution Report which recategorized this item as a Closed Item.

☐ The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. , which recategorized this item as either a Deviation or as a Class C or Class D Error. The PG&E document so informing the IDVP is
_____.

2. Signature: *H. E. Geyer* 830225
Approved/Program Manager

ERROR REPORT

File No. 8003

Class: C
A,B,C or D

File Revision No. 8

PG&E Task No. _____

1. Dates: Reported to Program Review Committee NA
Program Review Committee Action NA
Reported to PG&E and Originator 830222
2. Scheduled for TES Semimonthly Report No. March
3. Structure(s), system(s), or component(s) involved:
Control Room Ventilation and Pressurization System (CRVP) Equipment
inside the Turbine Building which must function in a severe
environment.
4. Description of Error:

The Enthalpy Value of the long term blowdown resulting from a main
steam line break in the Turbine building used by NSC was too low.

5. Significance of Error:

Safety-related equipment inside the Turbine building affected by a
main steam line break which must function in a severe environment may
be exposed to greater temperatures than reported.

6. Recommendation:

The response in DCP Completion Sheet, IDVP File No. 8003, Rev. 5,
signed January 24, 1983, is adequate because the DCP is performing a
reanalysis which "will use appropriately chosen values of enthalpy".
The concern described in this EOI File should be addressed in the DCP
reanalysis performed in response to EOI File 8001.
This file should be downgraded from an Error Class AB to an Error
Class C to more accurately reflect the significance of this concern.
The basis for this downgrading is the fact that this concern is an
isolated portion of the pressure and temperature analysis.
It is therefore difficult to isolate that portion of the results that
can be attributed solely to the error described in this file.

7. Potential Error Report signed by John Krechting (SWEC) on 830217

8. Signatures: NA Type Name/Organization NA Date 830222
For Program Review Committee NEC Approved/Program Manager

File No. 8003
File Revision No. 9

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☐ File Revision No. _____ is a Program Resolution Report which recategorized this item as a Closed Item.

☒ The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. 8, which recategorized this item ~~as a Class C Error~~ ~~as a Deviation~~ as a Class C ~~xxxxxxx~~ Error. The PG&E document so informing the IDVP is DCP Completion Sheet, IDVP File No. 8003 Rev. 5 signed 830221.

2. Signature: NE Boyd 830222
Approved/Program Manager

SWEC

File Revision No. 10

1. Date reported to PG&E and ~~XXX~~ 830225
2. Scheduled for TES (Originator) Semimonthly Report No. March
3. Responsive to PG&E Technical Program: Task 70223 (if applicable)
4. Prepared as a result of:
 - a. ☐ QA Audit and Review Report of _____
 - b. ☐ Field Inspection Deficiency
 - c. ☐ Independent Calculation Deficiency
 - d. ☐ Seismic Input Deficiency
 - e. ☐ Design Methodology Deficiency
 - f. ☒ Other ~~XXXXXXXXXX~~ - See Below
5. Structure(s), system(s) or component(s) involved:

Evaluation of assumed initial temperature in GE/GW.

6. Description of Concern:

Revisions 2 and 5 classified this file as an ER/AB. Subsequent review indicates that this aspect was not a concern because the value used was consistent with one part of the licensing documents and the subject analysis is subject to review based on EOI 8001.

7. Significance of Concern:

Revisions 8 and 9 to this file did not follow the proper procedure for indicating that this item was downgraded from an error to a closed item. That procedure requires issuance of a PRR/OIP, or a similar form, before issuance of a PRR/CI or Completion Report.

8. Recommendation:

- A. File revisions 8 and 9 are voided.
- B. File 11 will be issued to indicate downgrading, then the file will be closed.

9. Signature: W. E. Coogan 830225 (Originator/Organization)

PROGRAM RESOLUTION REPORT

File No. 8004

File Revision No. 11

- Downgrading
1. ~~XXXXXXXXXX~~ of an: ☐ Open Item: ☒ Class A/B Error
 2. Independent Design Verification Program Resolution is as:
 - a. ☐ Closed Item
 - b. ☐ Deviation
 - c. ☒ Open Item with future action by PG&E: Task 70223
 3. Date Reported to PG&E 830225
 4. Scheduled for TES Semimonthly Report No. March
 5. Resolution based on the following documentation:

EOI File 8004 Revisions 5 and 7.

DCP Completion Sheet dated 830115.

6. Program Resolution is:

This item is downgraded from an ER/AB to a Closed Item.

No DCP action is required.

7. Potential Program Resolution
Report signed by F. Sestak (SWEC) on 830131
Type Name/Organization Date
8. Signature: *W. L. Boyer* 830225 (Approved/Program Manager)

PROGRAM RESOLUTION REPORT

File No. 8004

File Revision No. 12

1. Resolution of an: ☒ Open Item: ☐ Class _____ Error _____
2. Independent Design Verification Program Resolution is as:
 - a. ☒ Closed Item
 - b. ☐ Deviation
 - c. ☐ Open Item with future action by PG&E: Task _____
3. Date Reported to PG&E 830225
4. Scheduled for TES Semimonthly Report No. March
5. Resolution based on the following documentation:

EOI file Revisions 5, 7, and 11.

DCP Completion Sheet signed 830131.

6. Program Resolution is:

This file was downgraded from ER/AB to a Closed Item because initial compartment pressure, temperature, and relative humidity values assumed in the analysis are 14.7 psia, 70°F, and 60% respectively, this being the licensing requirements for the specific combination of pipe breaks and initial conditions.

7. Potential Program Resolution
Report signed by NA on NA
8. Signature: *W. E. Conner* 830225 (Approved/Program Manager)
Type Name/Organization Date

File No. 8004
File Revision No. 13

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☒ File Revision No. 12 is a Program Resolution Report which recategorized this item as a Closed Item.

☐ The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. _____, which recategorized this item as either a Deviation or as a Class C or Class D Error. The PG&E document so informing the IDVP is _____.

2. Signature: *Z. E. Berger* 830225
Approved/Program Manager

OPEN ITEM REPORT

File No. 8007

SWEC

File Revision No. 3

1. Date reported to PG&E and ~~XX~~ 830225
2. Scheduled for TES (Originator) Semimonthly Report No. March
3. Responsive to PG&E Technical Program: Task (if applicable)
4. Prepared as a result of:
- a. ☐ QA Audit and Review Report of
 - b. ☐ Field Inspection Deficiency
 - c. ☐ Independent Calculation Deficiency
 - d. ☐ Seismic Input Deficiency
 - e. ☐ Design Methodology Deficiency
 - f. ☒ Other Deficiency
5. Structure(s), system(s) or component(s) involved:
Conduit K6844 - Control Room Ventilation System conduit containing
Class 1 cable/wire to CRVP System Components.
Main Steam - 3 Safety Relief Header.
6. Description of Concern:

Pipe rupture restraint no. 1030-14RT does not appear to be properly located for a circumferential break at node 3510.

7. Significance of Concern:

This event may cause the header and relief discharge vent piping support structure to pivot about the restraint and damage conduit no. K6844.

8. Recommendation:

TES requests SWEC to review the DCP response to file 8007-2, DCP Resolution and Completion Sheets, 830218, and provide a recommendation for the future disposition of this file.

9. Signature: VE Cox 830225 (Originator/Organization)

PROGRAM RESOLUTION REPORT

File No. 8007

File Revision No. 5

1. Resolution of an: ☒ Open Item: ☐ Class _____ Error _____
2. Independent Design Verification Program Resolution is as:
 - a. ☒ Closed Item
 - b. ☐ Deviation
 - c. ☐ Open Item with future action by PG&E: Task _____
3. Date Reported to PG&E 830310
4. Scheduled for TES Semimonthly Report No. March
5. Resolution based on the following documentation:

DCP Resolution Sheet for File No. 8007, signed 830218.

6. Program Resolution is:

The IDVP has reviewed the documentation submitted with the DCP Resolution Sheet, 830218 and recommends closing this file based on:

1. a review of AEC letter Giambusso to Searls dated 721218
2. restraint 1030-14RT is not required to mitigate any main steam pipe break effects and,
3. the IDVP has performed a safety evaluation which shows that the cables in conduit K6344 are not required for reactor shutdown for pipe break conditions postulated at node 3510.

7. Potential Program Resolution

Report signed by John E. Krechting on 830304

Type Name/Organization

Date

8. Signature: NEC 830310 (Approved/Program Manager)

File No. 8007
File Revision No. 6

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☒ File Revision No. 5 is a Program Resolution Report which recategorized this item as a Closed Item.

☐ The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. , which recategorized this item as either a Deviation or as a Class C or Class D Error. The PG&E document so informing the IDVP is _____.

2. Signature:

NE Corp 830510
Approved/Program Manager

OPEN ITEM REPORT

File No. 8008SWEC
~~XXX~~ 830225File Revision No. 3

1. Date reported to PG&E and ~~XXX~~ 830225
2. Scheduled for TES (Originator) Semimonthly Report No. March
3. Responsive to PG&E Technical Program: Task _____ (if applicable)
4. Prepared as a result of:
 - a. ☐ QA Audit and Review Report of _____
 - b. ☐ Field Inspection Deficiency
 - c. ☐ Independent Calculation Deficiency
 - d. ☐ Seismic Input Deficiency
 - e. ☐ Design Methodology Deficiency
 - f. ☒ Other Deficiency
5. Structure(s), system(s) or component(s) involved:
Conduit K6844 - Control Room Ventilation System conduit containing
Class 1 cable/wire to CRVP System Components.
Main Steam - 4 Safety Relief Header.
6. Description of Concern:

Pipe Rupture Restraint 1031-11RT does not appear to be properly located for a circumferential break at node 4145.

7. Significance of Concern:

This event may cause the header and vent pipe support to pivot about the restraint and damage conduit K6844.

8. Recommendation:

TES requests that SWEC review DCP Resolution and Completion Sheets, 830218, and provide a recommendation for the future disposition of this file.

9. Signature: W. L. Gayer 830225 (Originator/Organization)

PROGRAM RESOLUTION REPORT

File No. 8008

File Revision No. 5

1. Resolution of an: ☒ Open Item: ☐ Class _____ Error _____
2. Independent Design Verification Program Resolution is as:
 - a. ☒ Closed Item
 - b. ☐ Deviation
 - c. ☐ Open Item with future action by PG&E: Task _____
3. Date Reported to PG&E 830310
4. Scheduled for TES Semimonthly Report No. March
5. Resolution based on the following documentation:

DCP Resolution Sheet for File NO. 8008, signed 830218.

6. Program Resolution is:

The IDVP has reviewed the documentation submitted with the DCP Resolution Sheet, 830218 and recommends closing this file based on:

1. a review of AEC letter Giambusso to Searls dated 721218
2. restraint 1031-1 IRT is not required to mitigate any main steam pipe break effects, and
3. the IDVP has performed a safety evaluation which shows that the cables in conduit K6844 are not required for reactor shutdown for pipe break conditions postulated at node 4145.

7. Potential Program Resolution
Report signed by John E. Krechting on 830304
Type Name/Organization Date
8. Signature: John E. Krechting 830310 (Approved/Program Manager)

File No. 8008
File Revision No. 6

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☒ File Revision No. 5 is a Program Resolution Report which recategorized this item as a Closed Item.

☐ The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. , which recategorized this item as either a Deviation or as a Class C or Class D Error. The PG&E document so informing the IDVP is
_____.

2. Signature:

NE Corp 8/13/13
Approved/Program Manager

ERROR REPORT

File No. 8009

Class: A
A,B,C or D

File Revision No. 5

PG&E Task No. _____

1. Dates: Reported to Program Review Committee NA
Program Review Committee Action NA
Reported to PG&E and Originator 830225
2. Scheduled for YES Semimonthly Report No. March
3. Structure(s), system(s), or component(s) involved: _____

Auxiliary Feedwater System Discharge Piping upstream of last manual isolation valve before the Feedwater System.

4. Description of Error:

Reference Item 6 of EOI-8009 Rev. 0. Under certain operating conditions Auxiliary Feedwater Piping may be subjected to pressures in excess of code allowables. The design criteria of ANSI B31.7 were not met.

5. Significance of Error:

Reference Item 7 of EOI-8009 Rev. 0. Code allowable stress levels may have been exceeded without the proposed modifications, however, no physical damage to equipment or components would be expected due to conservative factors of safety contained in the applicable codes. The Auxiliary Feedwater System had been operated at these higher than design pressure conditions for extended periods of time, including the most severe turbine overspeed test condition for short intervals, with no physical damage.

6. Recommendation:

The DCP Resolution Sheet dated 830218 for EOI-8009 indicates physical modifications are required and that code allowables may be exceeded. Therefore this EOI File is an Error A since the code design criteria is exceeded.

The DCP should evaluate all components, piping and valves for compatibility with the new design pressure. This revised design pressure should be factored into the existing stress analysis and all effected equipment, including, control valves should be reviewed for compatibility with the new design pressure.

7. Potential Error Report signed by John Krechting (SWEC) on 830214
Type Name/Organization _____ Date _____
8. Signatures: NA 830225
For Program Review Committee _____ Approved/Program Manager _____

ERROR REPORT

Class: A
A,B,C or D

File No. 8009
File Revision No. 7
PG&E Task No. 70228

1. Dates: Reported to Program Review Committee N/A
Program Review Committee Action N/A
Reported to PG&E and Originator 830310
2. Scheduled for TES Semimonthly Report No. March
3. Structure(s), system(s), or component(s) involved:

Auxiliary Feedwater System Discharge Piping upstream of last manual isolation valve before the Feedwater System.

4. Description of Error:

See EOI File 8009, Revision 5, Item 4.

5. Significance of Error:

See EOI File 8009, Revision 5, Item 5.

6. Recommendation:

The IDVP has reviewed DCP Resolution Sheet dated February 18, 1983 and concludes that the proposed modifications and pressure valves are in compliance with code requirements.

The physical modifications will be verified by the IDVP. Additional Verification for this item is described in the ITR-34.

7. Potential Error Report signed by John E. Krechting on 830309
Type Name/Organization Date
8. Signatures: NA NEC 830309
For Program Review Committee Approved/Program Manager

ERROR REPORT

File No. 8010

Class: A
A,B,C or D

File Revision No. 8

PG&E Task No. 70229

1. Dates: Reported to Program Review Committee N/A
Program Review Committee Action N/A
Reported to PG&E and Originator 830310
2. Scheduled for YES Semimonthly Report No. March
3. Structure(s), system(s), or component(s) involved:

AFW Turbine Bearing Coolers and Supply Piping

4. Description of Error:

Item 6 of EOI File 8010, Revision 0 and Revision 1 describes the error. The AFW Bearing Cooling Water System and AFW Pump 1-1 Recirculation System are subjected to, under certain conditions, pressures which are in excess of code allowables and the bearing coolers design pressure rating.

5. Significance of Error:

Code class piping and the bearing cooler heat exchanger could be overstressed. Failure of the bearing coolers and/or the AFWP 1-1 recirculation piping could degrade the system function.

6. Recommendation:

The DCP Resolution Sheet for EOI File 8010, Revision 6 dated February 18, 1983 proposed system modifications to comply with the applicable codes. These modifications are described in the DCP DCR #DC1-EM-5009, Revision 0 contained in the response. The IDVP has reviewed the proposed modifications and finds the changes are an acceptable method for meeting code requirements. The physical modifications will be verified by the IDVP. Additional verification for this item is described in ITR-34.

7. Potential Error Report signed by John E. Krechting on 830304
Type Name/Organization Date
8. Signatures: NA
For Program Review Committee John E. Krechting 830310
Approved/Program Manager

OPEN ITEM REPORT

File No. 8011File Revision No. 3

1. Date reported to PG&E and ~~TES~~ ^{SWEC} 830219
2. Scheduled for TES (Originator) Semimonthly Report No. March
3. Responsive to PG&E Technical Program: Task _____ (if applicable)
4. Prepared as a result of:
- a. ☐ QA Audit and Review Report of _____
 - b. ☒ Field Inspection Deficiency
 - c. ☐ Independent Calculation Deficiency
 - d. ☐ Seismic Input Deficiency
 - e. ☒ Design Methodology Deficiency
 - f. ☐ Other Deficiency
5. Structure(s), system(s) or component(s) involved:

AFW and CRVP system electrical cables.

6. Description of Concern:

Qualification of cables in place (but not listed in FSAR) for MSLB environment per FSAR Section 3.6A, Amendment #, Reference 5.

7. Significance of Concern:

Possible failure of cables if not qualified for MSLB environment.

8. Recommendation:

SWEC to review DCP response (Ref. DCP Resolution Sheets, IDVP File No. 8011, Rev 2, dated 2/3 and 2/11/83) and provide recommendation for future disposition.

9. Signature: W. E. Cooper 830219 (Originator/Organization)

PROGRAM RESOLUTION REPORT

File No. 8011

File Revision No. 5

1. Resolution of an: ☒ Open Item: ☐ Class _____ Error _____
2. Independent Design Verification Program Resolution is as:
 - a. ☐ Closed Item
 - b. ☒ Deviation
 - c. ☐ Open Item with future action by PG&E: Task _____
3. Date Reported to PG&E 830225
4. Scheduled for TES Semimonthly Report No. March
5. Resolution based on the following documentation:

SWEC has reviewed DCP completion package dated 830203 and 830211 and has found them to be acceptable based on cable qualification test reports. PGandE documentation on equipment qualification and jet effects will be revised to reflect this information.

6. Program Resolution is:

This Open Item is resolved as a Deviation.

7. Potential Program Resolution
Report signed by John Krechting (SWEC) on 830225
Type Name/Organization Date
8. Signature: *John Krechting* 830225 (Approved/Program Manager)

File No. 8011
File Revision No. 6

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☐ File Revision No. _____ is a Program Resolution Report which recategorized this item as a Closed Item.

☒ The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. 6, which recategorized this item as either a Deviation or as a Class C or Class D Error. The PG&E document so informing the IDVP is PGandE Completion Sheet, IDVP File 8011, signed 830211.

2. Signature: WE Gray 830225
Approved/Program Manager

OPEN ITEM REPORT

File No. 8013

SWEC
~~WES~~ 830222

File Revision No. 7

1. Date reported to PG&E and ~~WES~~ 830222
2. Scheduled for TES (Originator) Semimonthly Report No. March
3. Responsive to PG&E Technical Program: Task _____ (if applicable)
4. Prepared as a result of:
 - a. ☐ QA Audit and Review Report of _____
 - b. ☐ Field Inspection Deficiency
 - c. ☐ Independent Calculation Deficiency
 - d. ☐ Seismic Input Deficiency
 - e. ☐ Design Methodology Deficiency
 - f. ☒ Other Deficiency
5. Structure(s), system(s) or component(s) involved:

Emergency Diesel Generators Nos. 11, 12, and 13.

6. Description of Concern:

Ability of diesel generators to start and accelerate to rated speed in the required sequence of all the needed safety-related loads.

7. Significance of Concern:

Diesel generators are required to supply power to establish safe shutdown in the event of certain failure conditions.

8. Recommendation:

SWEC to review DCP response (Ref. DCP Resolution Sheet 8013, Revision 0 and Revision 1 signed 830208) and provide recommendation for future disposition.

9. Signature: *NE Gagn* 830222 (Originator/Organization)

OPEN ITEM REPORT

File No. 8014

SWEC
~~TES~~ 830215

File Revision No. 3

1. Date reported to PG&E and ~~TES~~ 830215
2. Scheduled for TES (Originator) Semimonthly Report No. March
3. Responsive to PG&E Technical Program: Task _____ (if applicable)
4. Prepared as a result of:
 - a. ☐ QA Audit and Review Report of _____
 - b. ☒ Field Inspection Deficiency
 - c. ☐ Independent Calculation Deficiency
 - d. ☐ Seismic Input Deficiency
 - e. ☐ Design Methodology Deficiency
 - f. ☐ Other Deficiency
5. Structure(s), system(s) or component(s) involved:
Auxiliary Feedwater System Valves LCV-108, LCV-109, LCV-113, LCV-115, FCV-436, and FCV-437.
6. Description of Concern:

Modifications to protect these valves from the effects of a moderate energy line break spray were not made.

7. Significance of Concern:

The above valves may fail electrically due to inadequate spray protection in the event of a moderate energy line break.

8. Recommendation:

TES requests SWEC to review DCP Resolution Sheet, IDVP File No. 8014, signed 830210, and provide recommendations for future disposition.

9. Signature: NE Corp 830215 (Originator/Organization)

PROGRAM RESOLUTION REPORT

File No. 8014

File Revision No. 5

1. Resolution of an: ☐ Open Item: ☒ Class C Error
2. Independent Design Verification Program Resolution is as:
 - a. ☐ Closed Item
 - b. ☐ Deviation
 - c. ☒ Open Item with future action by PG&E: Task 70233
3. Date Reported to PG&E 830225
4. Scheduled for TES Semimonthly Report No. March
5. Resolution based on the following documentation:

6. Program Resolution is:

Based on the discussions over this file held at the meeting of February 23, 1983, at SWEC's offices, this file is issued to PGandE for future disposition.

7. Potential Program Resolution
Report signed by John Krechting (SWEC) on 830217
8. Signature: *John Krechting* 830225 (Approved/Program Manager)

OPEN ITEM REPORT

File No. 8014

File Revision No. 7

1. Date reported to PG&E and ~~PG&E~~ ^{SWEC} 830310
2. Scheduled for TES (Originator) Semimonthly Report No. March
3. Responsive to PG&E Technical Program: Task _____ (if applicable)
4. Prepared as a result of:
- a. ☐ QA Audit and Review Report of _____
 - b. ☐ Field Inspection Deficiency
 - c. ☐ Independent Calculation Deficiency
 - d. ☐ Seismic Input Deficiency
 - e. ☐ Design Methodology Deficiency
 - f. ☒ Other Deficiency
5. Structure(s), system(s) or component(s) involved:

Auxiliary Feedwater System Valves FCV-436 and -437 - MELB Protection

6. Description of Concern:

Modifications to protect these valves from the effects of a moderate energy line break spray were not made. A letter dated December 28, 1979 to the NRC from PG&E committed to provide this protection before fuel loading.

7. Significance of Concern:

8. Recommendation:

File Revision 8014-6, was prematurely issued. SWEC is requested to issue Revision 8 as a Potential Error Report, Class C.

9. Signature: NECoy 110309 (Originator/Organization)

ERROR REPORT

File No. 8014

Class: C
A,B,C or D

File Revision No. 9

PG&E Task No. 70233

1. Dates: Reported to Program Review Committee N/A
Program Review Committee Action N/A
Reported to PG&E and Originator March 10, 1983
2. Scheduled for TES Semimonthly Report No. March
3. Structure(s), system(s), or component(s) involved:

Auxiliary Feedwater System Valves FCV-436 and -437 - MELB Protection.

4. Description of Error:

Modifications to protect these valves from the effects of a moderate energy line break spray were not made. A letter dated December 28, 1979 to the NRC from PG&E committed to provide this protection before fuel loading.

5. Significance of Error:

The above valves were originally postulated to fail electrically due to inadequate spray protection in the event of a moderate energy line break. These valves are used for realignment to long term cooling water supplies after the condensate supply is exhausted. The IDVP believes adequate time will be available to manually align these sources after a low condensate alarm even if the motor operators are not functional. The DCP Resolution Sheet for this file dated March 4, 1983 provides an analysis. It states that the justification for protecting these valves has been reevaluated and no shields need be installed. DCP commits to update their December 28, 1979 Licensing Commitment letter to the NRC. The IDVP concurs with this reanalysis. This EOI file is therefore being downgraded to an Error C as incorrect installation was found but design criteria for cooling down was not exceeded. Revision 0 of this file identified additional concerns with details of barrier installation for LCVs 108, 109, 113, and 115. The DCP Completion Sheet dated October 18, 1982 identified that these barriers were installed properly. Their installation will be field verified.

6. Recommendation:

1. The DCP will provide their completion package after revision to the December 28, 1979 letter has been sent.
2. The IDVP will close this file after verification of the letter revision is made.

7. Potential Error Report signed by John E. Krechting on 830309
Type Name/Organization Date
8. Signatures: No
For Program Review Committee WELB 830309
Approved/Program Manager

PROGRAM RESOLUTION REPORT

File No. 8015

File Revision No. 8

1. ~~Resolution~~ ^{Downgrading} of an: ☐ Open Item: ☒ Class B Error
2. Independent Design Verification Program Resolution is as:
 - a. ☐ Closed Item
 - b. ☐ Deviation
 - c. ☒ Open Item with future action by PG&E: Task 70234
3. Date Reported to PG&E 830225
4. Scheduled for TES Semimonthly Report No. March
5. Resolution based on the following documentation:

EOI File 8015, Revision 4, PG&E Completion Sheet signed 821204.

Revision 4 classified this file as an ER/B.

Subsequent review indicated that this aspect was not a concern because failure to meet the surveillance requirements in Section 4.7.1.2 of the Technical Specification did not occur. If Revision 4 had been issued as a PRR/OIP, this information would have been developed and no error indicated.

Because of an oversight, Revision 6 was never issued.

6. Program Resolution is:

This item is downgraded from an ER/B to a Closed Item.

No DCP action is required.

7. Potential Program Resolution Report signed by John Krechting on 830210
Type Name/Organization Date
8. Signature: *[Signature]* (Approved/Program Manager)

PROGRAM RESOLUTION REPORT

File No. 8015

File Revision No. 9

1. Resolution of an: ☒ Open Item: ☐ Class _____ Error _____
2. Independent Design Verification Program Resolution is as:
 - a. ☒ Closed Item
 - b. ☐ Deviation
 - c. ☐ Open Item with future action by PG&E: Task _____
3. Date Reported to PG&E 830225
4. Scheduled for TES Semimonthly Report No. March
5. Resolution based on the following documentation:

EOI File 8015, Revisions 4 and 8 and PG&E Completion Sheet signed 821204.

6. Program Resolution is:

This file was downgraded from an ER/B to a Closed Item because failure to meet the surveillance requirements in Section 4.7.1.2 of the Technical Specification did not occur.

7. Potential Program Resolution
Report signed by _____ N/A _____ on _____ N/A _____
Type Name/Organization Date
8. Signature: NE Corp 830225 (Approved/Program Manager)

File No. 8015
File Revision No. 10

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

- ☒ File Revision No. 9 is a Program Resolution Report which recategorized this item as a Closed Item.
- ☐ The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. , which recategorized this item as either a Deviation or as a Class C or Class D Error. The PG&E document so informing the IDVP is _____.

2. Signature: *N. E. Long* 830225
Approved/Program Manager

OPEN ITEM REPORT

File No. 8016

SWEC

File Revision No. 5

1. Date reported to PG&E and ~~XXX~~ 830225
2. Scheduled for TES (Originator) Semimonthly Report No. March
3. Responsive to PG&E Technical Program: Task _____ (if applicable)
4. Prepared as a result of:
 - a. ☐ QA Audit and Review Report of _____
 - b. ☐ Field Inspection Deficiency
 - c. ☐ Independent Calculation Deficiency
 - d. ☐ Seismic Input Deficiency
 - e. ☐ Design Methodology Deficiency
 - f. ☒ Other Deficiency
5. Structure(s), system(s) or component(s) involved:

Class I portions of the CRVP System.

6. Description of Concern:

Evaluation of the various combinations of vital bus failures for a postulated LOCA in either Unit 1 or Unit 2 indicated conditions in which the CRVP System does not meet its design basis as stated in licensing commitments.

7. Significance of Concern:

Potential failure of Control Room to isolate and pressurize, and potential failure of air conditioning system in Safeguard Room.

8. Recommendation:

SWEC to review DCP Resolution Sheet (Ref. IDVP File No. 8016, Revision 4, dated 830210) and provide a recommendation for future disposition.

9. Signature: W E Goye 830225 (Originator/Organization)

ERROR REPORT

Class: A
A,B,C or D

File No. 8017

File Revision No. 3

PG&E Task No. _____

1. Dates: Reported to Program Review Committee NA
Program Review Committee Action NA
Reported to PG&E and ~~Organization~~ SWEC 830225
2. Scheduled for TES Semimonthly Report No. March ,
3. Structure(s), system(s), or component(s) involved:
Control Room Ventilation and Pressurization (CRVP) System and
Control Power for Safety-Related Equipment.
4. Description of Error:

See EOI 8017, Revision 0.

5. Significance of Error:

Based upon TES and SWEC review of DCP Resolution Sheet signed on 830118:

- A. Modifications are required and this file is reclassified from ER/AB to ER/A.
- B. The engineering resolution proposed by DCP is acceptable to the IDVP.

6. Recommendation:

Upon completion of the required modifications, as indicated by a DCP Completion Sheet, this file will be opened for SWEC verification of the physical modifications.

7. Potential Error Report signed by NA on NA
Type Name/Organization Date
8. Signatures: NA NEC 830225
For Program Review Committee Approved/Program Manager

ERROR REPORT

File No. 8017

Class: A
A,B,C or D

File Revision No. 5

PG&E Task No. _____

1. Dates: Reported to Program Review Committee NA
Program Review Committee Action NA
Reported to PG&E and ~~XXXXXX~~ SWEC 830309
2. Scheduled for TES Semimonthly Report No. March
3. Structure(s), system(s), or component(s) involved: _____
Control Room Ventilation and Pressurization (CRVP) System and
Control Power for Safety-Related Equipment.
4. Description of Error:

See EOI 8017, Revision 0.

5. Significance of Error:

Based upon TES and SWEC review of DCP Resolution Sheet signed on 830118:

- A. Modifications are required and this file is reclassified from ER/AB to ER/A.
- B. The engineering resolution proposed by DCP is acceptable to the IDVP.

6. Recommendation:

Upon completion of the required modifications, as indicated by a DCP Completion Sheet, this file will be opened for SWEC verification of the physical modifications.

This Error Report reiterates File Revision 3 solely to conform to the IDVP process sequence.

7. Potential Error Report signed by NA on NA
8. Signatures: NA Type Name/Organization NA Date 830309
For Program Review Committee 2/16/89 Approved/Program Manager

OPEN ITEM REPORT

File No. 8018

SWEC

File Revision No. 5

1. Date reported to PG&E and ~~WEC~~ 830302
2. Scheduled for TES (Originator) Semimonthly Report No. March
3. Responsive to PG&E Technical Program: Task _____ (if applicable)
4. Prepared as a result of:
 - a. ☐ QA Audit and Review Report of _____
 - b. ☐ Field Inspection Deficiency
 - c. ☐ Independent Calculation Deficiency
 - d. ☐ Seismic Input Deficiency
 - e. ☒ Design Methodology Deficiency
 - f. ☐ Other Deficiency

5. Structure(s), system(s) or component(s) involved:

Auxiliary Feedwater System - Steam Supply Isolation Valves FCV-37
and FCV-38.

6. Description of Concern:

Refer to EOI 8018, Revision 0.

7. Significance of Concern:

Refer to EOI 8018, Revision 0.

8. Recommendation:

SWEC to review DCP Completion Sheet, IDVP File 8018, signed 830210,
and provide recommendation for future disposition.

9. Signature: W E Goyne 830302 (Originator/Organization)

PROGRAM RESOLUTION REPORT

File No. 8018

File Revision No. 7

1. Resolution of an: ☒ Open Item: ☐ Class _____ Error _____
2. Independent Design Verification Program Resolution is as:
 - a. ☒ Closed Item
 - b. ☐ Deviation
 - c. ☐ Open Item with future action by PG&E: Task _____
3. Date Reported to PG&E 830309
4. Scheduled for TES Semimonthly Report No. March
5. Resolution based on the following documentation:

The DCP Completion Sheet for EOI 8018 dated March 1, 1983 is the latest response to this file. FCV 37 and 38 are Class I valves, but are Instrument Class II. These valves are normally open and are located in mutually redundant steam leads to the Auxiliary Feedpump Turbine. The DCP provided an analysis by Westinghouse dated February 7, 1983, indicating the flow from the postulated break of approximately 1×10^6 lbs/hr of main steam would not trip the unit at power levels of 10%, 30%, 60%, and 100%. Therefore, per the FSAR, off-site power is not required to be assumed lost and normal feedwater would be expected to be available. Westinghouse further stated that for this case blowdown from the two steam generators would be acceptable as long as the other two were intact. While it is desirable to isolate the break, the licensing commitment to maintain safe shutdown capability was shown by the analysis. The calculated inability of these valves to operate against the maximum expected differential pressure is addressed in EOI File 8062. The DCP response takes credit for the operation of several valves (FCV 440, 441, 439, 438, and LCV-113, 115). These valves are presently identified as qualified to existing temperatures resulting from High Energy Line Break. The DCP response has committed to reevaluating the equipment qualification of these valves after new environments are determined due to re-analysis in response to EOI 8001.

6. Program Resolution is:

The DCP response for this EOI is adequate in that feedwater flow will be maintained. The additional concern for equipment qualification will be addressed by the results of EOI 8001.

This file will be closed.

7. Potential Program Resolution
Report signed by John Krechting (SWEC) on 830304
Type Name/Organization Date
8. Signature: *John Krechting* 830309 (Approved/Program Manager)

File No. 8018
File Revision No. 8

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☒ File Revision No. 7 is a Program Resolution Report which recategorized this item as a Closed Item.

☐ The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. , which recategorized this item as either a Deviation or as a Class C or Class D Error. The PG&E document so informing the IDVP is
_____.

2. Signature: W E Coyne 830309
Approved/Program Manager

PROGRAM RESOLUTION REPORT

File No. 8019

File Revision No. 5

1. Resolution of an: ☒ Open Item: ☐ Class Error
2. Independent Design Verification Program Resolution is as:
 - a. ☒ Closed Item
 - b. ☐ Deviation
 - c. ☐ Open Item with future action by PG&E: Task
3. Date Reported to PG&E 830225
4. Scheduled for TES Semimonthly Report No. March
5. Resolution based on the following documentation:

DCP Resolution Sheet signed 830124 plus DCP Completion Sheet for
IDVP File No. 8047 signed 830203.

6. Program Resolution is:

Based on the information in these documents the IDVP concludes that
the concern has been adequately addressed.

7. Potential Program Resolution
Report signed by John Krechting (SWEC) on 830216
8. Signature: *John Krechting* 830225 (Approved/Program Manager)

File No. 8019
File Revision No. 6

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☒ File Revision No. 5 is a Program Resolution Report which recategorized this item as a Closed Item.

☐ The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. _____, which recategorized this item as either a Deviation or as a Class C or Class D Error. The PG&E document so informing the IDVP is _____.

2. Signature: NE Gay 830225
Approved/Program Manager

OPEN ITEM REPORT

File No. 8020

SWEC

File Revision No. 3

1. Date reported to PG&E and ~~TES~~ 830310
2. Scheduled for TES (Originator) Semimonthly Report No. March
3. Responsive to PG&E Technical Program: Task _____ (if applicable)
4. Prepared as a result of:
 - a. ☐ QA Audit and Review Report of _____
 - b. ☐ Field Inspection Deficiency
 - c. ☐ Independent Calculation Deficiency
 - d. ☐ Seismic Input Deficiency
 - e. ☒ Design Methodology Deficiency
 - f. ☐ Other Deficiency
5. Structure(s), system(s) or component(s) involved:

CRVP System - Cable Separation.

6. Description of Concern:

Refer to EOI 8020, Revision 0.

7. Significance of Concern:

Refer to EOI 8020, Revision 0.

8. Recommendation:

SWEC to review DCP response, IDVP File No. 8020, signed 830307 for future disposition.

9. Signature: *W. E. Cooper* for 830310 (Originator/Organization)

OPEN ITEM REPORT

File No. 8022

1. Date reported to PG&E and ~~TES~~ SWEC 830222
2. Scheduled for TES (Originator) Semimonthly Report No. March
3. Responsive to PG&E Technical Program: Task _____ (if applicable)
4. Prepared as a result of:
a. ☐ QA Audit and Review Report of _____
b. ☐ Field Inspection Deficiency
c. ☒ Independent Calculation Deficiency
d. ☐ Seismic Input Deficiency
e. ☐ Design Methodology Deficiency
f. ☐ Other Deficiency
5. Structure(s), system(s) or component(s) involved:

Engineered Safeguards 4.16 KV Metal-Clad Switchgear.

6. Description of Concern:

Calculated worst case short circuit current exceeds breaker nameplate rating.

7. Significance of Concern:

Possible failure of breaker resulting in forced outage of Buses F, G, and H.

8. Recommendation:

SWEC to review DCP response (DCP Resolution Sheet, Revision 1, File 8022, signed 830207) and provide a recommendation for future disposition.

9. Signature: NE Corp 830222 (Originator/Organization)

ERROR REPORTFile No. 8022Class: C
A,B,C or DFile Revision No. 5

PG&E Task No. _____

1. Dates: Reported to Program Review Committee NA
Program Review Committee Action NA
Reported to PG&E and Originator 830310
2. Scheduled for TES Semimonthly Report No. March
3. Structure(s), system(s), or component(s) involved: _____

4160 Volt Circuit Breakers.

4. Description of Error:

The short circuit interrupting rating of 4160 volt circuit breakers is less than calculated short circuit currents.

5. Significance of Error:

The resolution package (signed 830302) with supporting additional test data from GE and a letter from GE indicates that the breakers can interrupt the calculated short circuit currents even though those currents exceed the circuit breaker nameplate rating.

However, a generic concern arises that other safety related breakers in the plant may be subject to short circuit current duty in excess of nameplate ratings.

6. Recommendation:

On the basis of the letter from GE indicating the adequacy of the circuit breakers this file is downgraded from ER/B to ER/C to more accurately reflect the significance of concern.

This file will be closed since no modifications are required.

7. Potential Error Report signed by John Krechting (SWEC) on 830310
8. Signatures: NA Type Name/Organization W.E. Cooper Date 830310
For Program Review Committee Approved/Program Manager
for W.E. COOPER

File No. 8022
File Revision No. 6

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☐ File Revision No. _____ is a Program Resolution Report which recategorized this item as a Closed Item.

☒ The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. 5, which recategorized this item as ~~either a Deviation or~~ as a Class C ~~XXXXXX~~ Error. The PG&E document so informing the IDVP is DCP Completion Sheet, IDVP File No. 8022, signed 830302.

2. Signature:  830310

Approved/Program Manager

OPEN ITEM REPORT

File No. 8026

SWEC

File Revision No. 3

1. Date reported to PG&E and ~~WDS~~ 830222
2. Scheduled for TES (Originator) Semimonthly Report No. March
3. Responsive to PG&E Technical Program: Task _____ (if applicable)
4. Prepared as a result of:
a. ☐ QA Audit and Review Report of _____
b. ☐ Field Inspection Deficiency
c. ☒ Independent Calculation Deficiency
d. ☐ Seismic Input Deficiency
e. ☐ Design Methodology Deficiency
f. ☐ Other Deficiency
5. Structure(s), system(s) or component(s) involved:

Engineered Safeguards 480 Volt System - Normal Full-Load Condition.

6. Description of Concern:

During normal, steady-state, full-load operation, with 230 KV supplying power to station auxiliaries, voltage at the 480 V motor terminal will be below the minimum specified by NEMA standard MG-1.

7. Significance of Concern:

Continuous operation below minimum operating voltage may overheat motors, causing premature failures.

8. Recommendation:

SWEC to review DCP response (DCP Resolution Sheet 8026, Revision 2, dated 830131) and provide recommendation for future disposition.

9. Signature: NE Coyne 830222 (Originator/Organization)

PROGRAM RESOLUTION REPORT

File No. 8028

File Revision No. 5

1. Resolution of an: ☒ Open Item: ☐ Class _____ Error _____
2. Independent Design Verification Program Resolution is as:
 - a. ☐ Closed Item
 - b. ☒ Deviation
 - c. ☐ Open Item with future action by PG&E: Task _____
3. Date Reported to PG&E 830309
4. Scheduled for TES Semimonthly Report No. March
5. Resolution based on the following documentation:
 - A. EOI 8028, Revision 4 as a PPRR/Dev.
 - B. DCP Completion Sheet dated 3/3/83 transmitting PSRC approval of FSAR Update Change Notice and stating no physical modifications.

6. Program Resolution is:

Deviation requiring FSAR changes to correct inconsistencies regarding applicability of HELB and HELC to line 760.

No additional DCP action required.

7. Potential Program Resolution
Report signed by John Krechting (SWEC) on 830208
Type Name/Organization Date
8. Signature: John Krechting 830309 (Approved/Program Manager)

File No. 8028
File Revision No. 6

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☐ File Revision No. _____ is a Program Resolution Report which recategorized this item as a Closed Item.

☒ The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. 5, which recategorized this item as ~~XXXXXX~~ a Deviation ~~XXXXXXXXXXXX~~ ~~XXXXXXXXXXXX~~. The PG&E document so informing the IDVP is DCP Completion Sheet dated 830303.

2. Signature: W. E. Coyle 830309
Approved/Program Manager

PROGRAM RESOLUTION REPORT

File No. 8029

File Revision No. 5

1. Resolution of an: ☒ Open Item: ☐ Class _____ Error _____
2. Independent Design Verification Program Resolution is as:
 - a. ☐ Closed Item
 - b. ☒ Deviation
 - c. ☐ Open Item with future action by PG&E: Task _____
3. Date Reported to PG&E 830309
4. Scheduled for TES Semimonthly Report No. March
5. Resolution based on the following documentation:
 - A. EOI 8029, Revision 4 as a PPRR/Dev.
 - B. DCP Completion Sheet dated 3/3/83 transmitting PSRC approval of FSAR Update Change Notice and stating no physical modifications.

6. Program Resolution is:

Deviation requiring FSAR changes to correct inconsistencies regarding applicability of HELB and HELC to line 760.

No additional DCP action required.

7. Potential Program Resolution Report signed by John Krechting (SWEC) on 830208
Type Name/Organization Date
8. Signature: *H. E. Cogan* 830309 (Approved/Program Manager)

File No. 8029
File Revision No. 6

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☐ File Revision No. _____ is a Program Resolution Report which recategorized this item as a Closed Item.

☒ The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. 5, which recategorized this item as ~~either~~ a Deviation ~~or a Design Change~~ ~~or a Design Change~~. The PG&E document so informing the IDVP is DCP Completion Sheet dated 830303.

2. Signature: *R. E. Cope* 830309
Approved/Program Manager

PROGRAM RESOLUTION REPORT

File No. 8030

File Revision No. 5

1. Resolution of an: ☒ Open Item: ☐ Class _____ Error _____
2. Independent Design Verification Program Resolution is as:
 - a. ☐ Closed Item
 - b. ☒ Deviation
 - c. ☐ Open Item with future action by PG&E: Task _____
3. Date Reported to PG&E 830309
4. Scheduled for TES Semimonthly Report No. March
5. Resolution based on the following documentation:
 - A. EOI 8030, Revision 4 as a PPRR/Dev.
 - B. DCP Completion Sheet dated 3/3/83 transmitting PSRC approval of FSAR Update Change Notice and stating no physical modifications.

6. Program Resolution is:

Deviation requiring FSAR changes to correct inconsistencies regarding applicability of HELB and HELC to line 760.

No additional DCP action required.

7. Potential Program Resolution
Report signed by John Krechting (SWEC) on 830208
Type Name/Organization Date
8. Signature: NEC 830309 (Approved/Program Manager)

File No. 8030
File Revision No. 6

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☐ File Revision No. _____ is a Program Resolution Report which recategorized this item as a Closed Item.

☒ The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. 5, which recategorized this item as ~~XXXXXX~~ a Deviation ~~XXXXXXXXXXXX~~ ~~XXXXXX~~. The PG&E document so informing the IDVP is DCP Completion Sheet dated 830303.

2. Signature: *W. E. Goy* 830309
Approved/Program Manager

PROGRAM RESOLUTION REPORT

File No. 8031

File Revision No. 5

1. Resolution of an: ☒ Open Item: ☐ Class _____ Error _____
2. Independent Design Verification Program Resolution is as:
 - a. ☒ Closed Item
 - b. ☐ Deviation
 - c. ☐ Open item with future action by PG&E: Task _____
3. Date Reported to PG&E 830309
4. Scheduled for TES Semimonthly Report No. March
5. Resolution based on the following documentation:

- A. EOI 8031, Revision 4 as a PPRR/CI.
- B. DCP Completion Sheet signed 3/3/83 transmitting PSRC approval of FSAR Update Change Notice.

6. Program Resolution is:

The licensing change provides for an alternative method of temperature calculation. The remaining concerns of this EOI are addressed by 8001 and 8064.

7. Potential Program Resolution
Report signed by John Krechting (SWEC) on 830222
8. Signature: *John Krechting* 830309 (Approved/Program Manager)

File No. 8031
File Revision No. 6

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☒ File Revision No. 5 is a Program Resolution Report which recategorized this item as a Closed Item.

☐ The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. , which recategorized this item as either a Deviation or as a Class C or Class D Error. The PG&E document so informing the IDVP is _____.

2. Signature: W. E. Page 830309
Approved/Program Manager

OPEN ITEM REPORT

File No. 8032

SWEC

File Revision No. 3

1. Date reported to PG&E and ~~TES~~ SWEC 830225
2. Scheduled for TES (Originator) Semimonthly Report No. March
3. Responsive to PG&E Technical Program: Task _____ (if applicable)
4. Prepared as a result of:
 - a. ☐ QA Audit and Review Report of _____
 - b. ☐ Field Inspection Deficiency
 - c. ☐ Independent Calculation Deficiency
 - d. ☐ Seismic Input Deficiency
 - e. ☐ Design Methodology Deficiency
 - f. ☒ Other Deficiency
5. Structure(s), system(s) or component(s) involved:

Auxiliary Feedwater System - Level Control Valves: LCV 110, 111, 113, and 115.

6. Description of Concern:

See EOI 8032, Revision 2.

7. Significance of Concern:

See EOI 8032, Revision 2.

8. Recommendation:

SWEC to review PGandE response (Ref. DCP Resolution Sheet, IDVP File No. 8032, Revision 1) and recommend disposition.

9. Signature: W E Cayer 830225 (Originator/Organization)

ERROR REPORT

File No. 8032

Class: C
A,B,C or D

File Revision No. 5

PG&E Task No. _____

1. Dates: Reported to Program Review Committee NA
Program Review Committee Action NA
Reported to PG&E and Originator 830309
2. Scheduled for TES Semimonthly Report No. March
3. Structure(s), system(s), or component(s) involved: _____

Auxiliary Feedwater System (AFW).

4. Description of Error:

PGandE letter of November 13, 1978 from Mr. Phillip Crane to Mr. John Stolz of NRC, (Q.51 Revised Response to question of alternate emergency control) commits to control of auxiliary feedwater level control valves at hot shutdown panel. But wiring schematic 437507 Rev. 11 shows that valve power "on-off" control switch and associated wiring at main control panel are essential to this function.

Isolation of Control Room circuits is not provided.

5. Significance of Error:

A fire in the control room could prevent remote control of the level control valves from the hot shutdown panel. Power to energize valve motor starters to supply electrohydraulic actuators may not be available at shutdown panel as a result of such a fire.

6. Recommendation:

DCP's response (Resolution Sheet dated February 7, 1983) has been reviewed and found to address the concern. The DCP response identified the discrepancy between the FSAR commitment and the actual design. The proposed modification to the electrical control circuits will provide adequate isolation of circuitry from the potential effects of a control room fire.

The physical modifications described will be in compliance with the DCP licensing commitments. Field verification of the modification will be required.

This file is being downgraded from Error Class A to Class C to more accurately reflect the significance of the concern. The basis for this downgrading is that although the licensing commitment was not met, local manual control of the subject valves was always possible, as a last resort.

Local Manual Control is deemed acceptable based on the NRC approval of Local Manual operation of these valves (LCV-110, 111, 113, 115) for a fire in the hot shutdown panel which similarly causes loss of remote control of these valves from both the Control Room and hot shutdown panel. (See PGandE letter referenced in Item 4 above, Q.51, page 4).

7. Potential Error Report signed by John Krechting (SWEC) on 830308
Type Name/Organization NA Date 830309
8. Signatures: NA
For Program Review Committee H. E. Comp Approved/Program Manager 830309

ERROR REPORT

Class: C
A,B,C or D

File No. 8033

File Revision No. 5

PG&E Task No. _____

1. Dates: Reported to Program Review Committee NA
Program Review Committee Action NA
Reported to PG&E and Originator 830225
2. Scheduled for TES Semimonthly Report No. March, _____
3. Structure(s), system(s), or component(s) involved: _____

AFW and CRVP Systems equipment outside the containment which must function in a severe environment.

4. Description of Error:

The steam generators were each modeled by NSC as one control volume. This technique does not model the steam separator located in the steam generator. The effect of neglecting the steam separator will significantly affect the amount of entrained liquid that is calculated in the steam generator effluent.

5. Significance of Error:

Safety-related equipment located outside containment affected by a main steam line break which must function in a severe environment may be exposed to greater temperatures than reported.

6. Recommendation:

The response in DCP Completion Sheet, IDVP File No. 8033, Revision 2, signed 830121 states that "the entire analysis is being re-done in response to EOI 8001" and the DCP letter, DCVP-TES-729, dated 830124 indicates that Westinghouse blowdown data will be used in the reanalysis. The above responses are adequate.

The concerns described in this EOI File will be considered in the DCP reanalysis performed in response to EOI File 8001.

This file is being downgraded from an Error Class B to an Error Class C to more accurately reflect the significance of this concern. The basis for this downgrading is the fact that this concern is an isolated portion of the pressure and temperature analysis. It is therefore, difficult to isolate portion of the results that can be attributed solely to the error described in this file.

7. Potential Error Report signed by John Krechting (SWEC) on 830217
Type Name/Organization _____ Date _____
8. Signatures: NA NEC
For Program Review Committee _____ Approved/Program Manager _____
Date 830225

File No. 8033
File Revision No. 6

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☐ File Revision No. _____ is a Program Resolution Report which recategorized this item as a Closed Item.

☒ The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. 5, which recategorized this item ~~as a Class C Error~~ as a Class C ~~or Class X Error~~. The PG&E document so informing the IDVP is DCP Completion Sheet, IDVP File No. 8033, signed 830121.

2. Signature: NE Cogan 830225
Approved/Program Manager

OPEN ITEM REPORTFile No. 8034File Revision No. 5

1. Date reported to PG&E and ~~TES~~ ^{SWEC} 830216
2. Scheduled for TES (Originator) Semimonthly Report No. March
3. Responsive to PG&E Technical Program: Task _____ (if applicable)
4. Prepared as a result of:
- a. ☐ QA Audit and Review Report of _____
 - b. ☐ Field Inspection Deficiency
 - c. ☒ Independent Calculation Deficiency
 - d. ☐ Seismic Input Deficiency
 - e. ☐ Design Methodology Deficiency
 - f. ☐ Other Deficiency
5. Structure(s), system(s) or component(s) involved:

Auxiliary Feedwater (AFW) System Equipment.

6. Description of Concern:

Review of the methods utilized, by Nuclear Services Corporation (NSC), to calculate the pressure and temperature transients in area GE at elevation 115'-0", due to a main steam line rupture in area GW at elevation 115'-0", revealed that enthalpy values were too low and the effects of adjacent compartments were neglected.

7. Significance of Concern:

Safety-related equipment outside containment may experience higher temperature and pressure environments than reported.

8. Recommendation:

TES requests SWEC to resubmit this file as a Potential Error C.

9. Signature: WEC 830216 (Originator/Organization)

ERROR REPORTFile No. 8034Class: C
A,B,C or DFile Revision No. 7

PG&E Task No. _____

1. Dates: Reported to Program Review Committee NA
Program Review Committee Action NA
Reported to PG&E and Originator 830225
2. Scheduled for TES Semimonthly Report No. March
3. Structure(s), system(s), or component(s) involved: _____

Auxiliary Feedwater (AFW) System Equipment.

4. Description of Error:

Review of the methods utilized, by Nuclear Services Corporation (NSC), to calculate the pressure and temperature transients in area GE at elevation 115'-0", due to a main steam line rupture in area GW at elevation 115'-0", revealed the following:

1. Enthalpy values utilized to determine the energy rates into area GE were developed from the CONTEMPT computer program output that calculated the environments in area GW at elevation 115'-0". The enthalpy values developed from the CONTEMPT computer program output were too low due to the accumulation of air in area GW (Refer to Error Report 8001).
2. The method utilized to calculate the mass discharge data into area GE and the one node model developed to analyze the environments in area GE will result in the calculation of pressure and temperature transients which are too low. The NSC method of calculating the mass discharge data into area GW elevation 115'-0" and the model developed to calculate the environments for area GE elevation 115'-0" assumed all vents out of the area exhausted to atmosphere except the vent into area GW. The effects of adjacent compartments on the environments in area GE elevation 115'-0" were neglected.

5. Significance of Error:

Safety-related equipment outside containment may experience higher temperature and pressure environments than reported.

6. Recommendation:

The response in the DCP Completion Sheet, IDVP File No. 8034, Rev. 2, signed 830124, is adequate because the DCP reanalysis will use a multi-node computer program. The program can adequately address the concerns of energy rates into and effect of adjacent compartments on calculated pressure and temperature transients.

The concerns described in this EOI File will be considered in the DCP reanalysis performed in response to EOI File 8001.

This file is downgraded from Error Report Class B to Error Report Class C to more accurately reflect the significance of this concern. The basis for this downgrading is the fact that this concern is an isolated portion of the pressure and temperature analysis. It is therefore difficult to isolate that portion of the results that can be attributed solely to the error described in this file.

7. Potential Error Report signed by John Krechting (SWEC) on 830218
Type Name/Organization NA Date 830225
8. Signatures: NA
For Program Review Committee W.E. Gump Approved/Program Manager

File No. 8034
File Revision No. 8

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☐ File Revision No. _____ is a Program Resolution Report, which recategorized this item as a Closed Item.

☒ The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. 7, which recategorized this item ~~as a Class C Error~~ as a Class C ~~Error~~. The PG&E document so informing the IDVP is DCP Completion Sheet, IDVP File NO. 8034, signed 830124.

2. Signature: NE Coon 830225
Approved/Program Manager

OPEN ITEM REPORTFile No. 8035SWEC
TES 830225File Revision No. 5

1. Date reported to PG&E and ~~TES~~ 830225
2. Scheduled for TES (Originator) Semimonthly Report No. March
3. Responsive to PG&E Technical Program: Task _____ (if applicable)
4. Prepared as a result of:
 - a. ☐ QA Audit and Review Report of _____
 - b. ☐ Field Inspection Deficiency
 - c. ☐ Independent Calculation Deficiency
 - d. ☐ Seismic Input Deficiency
 - e. ☐ Design Methodology Deficiency
 - f. ☒ Other Deficiency - PG&E Task Completion on Error A.
5. Structure(s), system(s) or component(s) involved:

CRVP Fire Protection.

6. Description of Concern:

Smoke detectors in CRVP normal outside air intake ducts have not been provided as per commitments made in Amendment 51 (page 5-51). This commitment was made in response to BTP-9.5-1 Position F.2.

7. Significance of Concern:

Control room operators would not be automatically alerted in case of smoke entering the control room. A significant amount of smoke could enter the control room prior to detection by operators which could affect control room habitability.

8. Recommendation:

TES requests SWEC to resubmit this file as a Potential Error C.

9. Signature: NECoy 830225 (Originator/Organization)

ERROR REPORT

Class: C
A,B,C or D

File No. 8035

File Revision No. 7

PG&E Task No. 70257

1. Dates: Reported to Program Review Committee NA
Program Review Committee Action NA
Reported to PG&E and Originator 830225
2. Scheduled for TES Semimonthly Report No. March ,
3. Structure(s), system(s), or component(s) involved:

CRVP Fire Protection.

4. Description of Error:

PGandE did not meet their licensing commitment, Amendment 51, dated 770727.

5. Significance of Error:

Per DCP Resolution Sheet, signed 830124, smoke detectors will be installed in the CRVP Intake in order to meet the licensing commitment. DCN's No. DC1-E-E-3325 and DC2-E-E4325 were issued to implement the physical modifications.

6. Recommendation:

The IDVP concurs with the DCP action (per DCP Resolution Sheet signed 830124) to resolve the original concern. This file will be closed upon IDVP verification of the physical modifications.

This file is being downgraded from ER/A to ER/C to more accurately reflect the significance of the concern. The basis for this downgrading is that although the licensing commitment was not met, the lack of these specific smoke detectors would pose no significant safety concern.

7. Potential Error Report signed by John Krechting (SWEC) on 830224
Type Name/Organization NA Date 830225
8. Signatures: NA
For Program Review Committee Approved/Program Manager

PROGRAM RESOLUTION REPORT

File No. 8036

File Revision No. 5

1. Resolution of an: ☐ Open Item: ☒ Class A Error
2. Independent Design Verification Program Resolution is as:
 - a. ☐ Closed Item
 - b. ☒ Deviation
 - c. ☐ Open Item with future action by PG&E: Task _____
3. Date Reported to PG&E 830225
4. Scheduled for TES Semimonthly Report No. March
5. Resolution based on the following documentation:

DCP Completion Sheet, IDVP File No. 8036, signed 830210.

6. Program Resolution is:

The IDVP has reviewed this Completion Sheet. The response is acceptable to assure the system integrity in accordance with licensing commitments. This EOI file identified a concern that is not an error in analysis, design, or construction as the system was not operational at the time of review. The file is being downgraded from a Class A Error to a Deviation to more accurately reflect the significance of concern.

7. Potential Program Resolution
Report signed by John Krechting (SWEC) on 830209
Type Name/Organization Date
8. Signature: *John Krechting* 830225 (Approved/Program Manager)

File No. 8036
File Revision No. 6

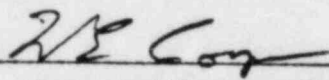
IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☐ File Revision No. _____ is a Program Resolution Report which recategorized this item as a Closed Item.

☒ The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. 5, which recategorized this item as ~~XXXXXX~~ a Deviation ~~XXXXXXXXXX~~ ~~XXXXXXXXXX~~. The PG&E document so informing the IDVP is DCP Completion Sheet, IDVP File No. 8036, signed 830210.

2. Signature:  830225
Approved/Program Manager

PROGRAM RESOLUTION REPORT

File No. 8038

File Revision No. 5

1. Resolution of an: ☒ Open Item: ☐ Class Error
2. Independent Design Verification Program Resolution is as:
 - a. ☐ Closed Item
 - b. ☒ Deviation
 - c. ☐ Open Item with future action by PG&E: Task
3. Date Reported to PG&E 830225
4. Scheduled for TES Semimonthly Report No. March
5. Resolution based on the following documentation:

The DCP completion sheet identified as 8038 revision 2 dated January 3, 1983 and enclosed an evaluation demonstrating that no credible fire will propagate through the 4 feet x 13 feet ventilation opening in the ceiling of fire zone 3 - Q - 2. This evaluation was based on low combustible loadings in the immediate vicinity of the opening and the air flow characteristics through the opening.

6. Program Resolution is:

The IDVP has reviewed the documentation referenced and described above and concurs that a fire is unlikely to propagate through the opening. Therefore, the intent of the licensing commitment to contain a fire in its own fire zone has been met.

This EOI is being downgraded from an Error Class A/B to a Deviation to more adequately reflect the significance of this concern.

7. Potential Program Resolution
Report signed by John Krechting (SWEC) on 830210
8. Signature: *John Krechting* 830225 (Approved/Program Manager)

File No. 8038
File Revision No. 6

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☐ File Revision No. _____ is a Program Resolution Report which recategorized this item as a Closed Item.

☒ The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. 5, which recategorized this item as ~~XXXXXX~~ a Deviation ~~XXXXXXXXXXXX~~ ~~XXXXXXXXXXXX~~. The PG&E document so informing the IDVP is PGandE Completion Sheet, IDVP File No. 8038, signed 830103.

2. Signature: *NE Gager* 830225
Approved/Program Manager

PROGRAM RESOLUTION REPORT

File No. 8039

File Revision No. 5

1. Resolution of an: ☐ Open Item: ☒ Class A/B Error
2. Independent Design Verification Program Resolution is as:
 - a. ☐ Closed Item
 - b. ☒ Deviation
 - c. ☐ Open Item with future action by PG&E: Task _____
3. Date Reported to PG&E 830225
4. Scheduled for TES Semimonthly Report No. March
5. Resolution based on the following documentation:

DCP Completion Sheet, IDVP File No. 8039 signed 830115.

6. Program Resolution is:

Based on this Completion Sheet, the IDVP has concluded that the intent of the licensing commitments has been met because a fire in any of the 4KV switchgear rooms or associated cable spreading rooms will affect no more than one vital bus and that a fire in zone 13-E is unlikely to propagate through the ventilation ducts to the cable spreading rooms (fire zones 12-A, 12-B, and 12-C). This EOI file is being downgraded from a Class A/B Error to a Deviation to more clearly reflect the significance of the concern.

7. Potential Program Resolution
Report signed by John Krechting (SWEC) on 830209
8. Signature: *John Krechting* 830225 (Approved/Program Manager)

File No. 8039
File Revision No. 6

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

- ☐ File Revision No. _____ is a Program Resolution Report which recategorized this item as a Closed Item.
- ☒ The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. 5, which recategorized this item as ~~XXXXXX~~ a Deviation ~~on xxxxx Class~~ ~~XXXXXX Class XXXX Error~~. The PG&E document so informing the IDVP is DCP Completion Sheet, IDVP File No. 8039, signed 830115.

2. Signature: NE Loge 830225
Approved/Program Manager

OPEN ITEM REPORT

File No. 8040

1. Date reported to PG&E and ~~SWEC~~ TES 830217 File Revision No. 5
2. Scheduled for TES (Originator) Semimonthly report No. March
3. Responsive to PG&E Technical Program: Task _____ (if applicable)

4. Prepared as a result of:
a. ☐ QA Audit and Review Report of _____
b. ☐ Field Inspection Deficiency
c. ☐ Independent Calculation Deficiency
d. ☐ Seismic Input Deficiency
e. ☐ Design Methodology Deficiency
f. ☒ Other Deficiency

5. Structure(s), system(s) or component(s) involved:

Safety-related equipment outside containment which must be located above flood levels or protected against submergence.

6. Description of Concern:

Review of the flooding in area GW due to a feedwater line rupture revealed the assumed water inventory available for release from the steam generator was nonconservative.

7. Significance of Concern:

Assumptions concerning steam generator water inventory and auxiliary feedwater addition could affect calculation of flooding heights.

8. Recommendation:

TES requests SWEC to resubmit this file as a Potential Error C.

9. Signature: NEC 830217 (Originator/Organization)

ERROR REPORTFile No. 8040Class: C
A,B,C or DFile Revision No. 7

PG&E Task No. _____

1. Dates: Reported to Program Review Committee NA
Program Review Committee Action NA
Reported to PG&E and Originator 830222
2. Scheduled for TES Semimonthly Report No. March
3. Structure(s), system(s), or component(s) involved: _____

Safety-related equipment outside containment which must be located above flood levels or protected against submergence.

4. Description of Error:

Review of the flooding in area GW due to a feedwater line rupture revealed the following nonconservative assumptions:

1. The inventory available for release from the steam generator considered only the liquid mass above the feedwater sparger ring (inlet pipe). Therefore only approximately 25,000 lbm from the steam generator that contains 153,000 lbm was considered for calculation of the maximum flood height.
2. Auxiliary feedwater flow out of the rupture pipe was not considered.

5. Significance of Error:

Assumptions concerning steam generator water inventory and auxiliary feedwater addition could affect calculation of flooding heights.

6. Recommendation:

The response in the DCP Completion Sheet, IDVP File No. 8040, Rev. 2, signed 830124, is adequate.

Review of the response revealed the maximum flood heights calculated in the original analysis for areas GE/GW at el 115 ft-0 in. to be conservative. This is based on the identification by DCP of assumptions and methods which overpredicted the water available for flooding. The water volume that was overpredicted is larger than the steam generator water volume that was neglected. The concerns identified in the EOI File have been adequately addressed. No physical modifications are required as a result of this file. This file should be downgraded from an Error Class B to an Error Class C to more accurately reflect the significance of this concern. The basis for this downgrading is the fact the flooding heights originally calculated would not be significantly affected.

7. Potential Error Report signed by John Krechting (SWEC) on 830218
8. Signatures: NA Type Name/Organization Date
For Program Review Committee 2/26/83 830222
Approved/Program Manager

File No. 8040
File Revision No. 8

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☐ File Revision No. _____ is a Program Resolution Report which recategorized this item as a Closed Item.

☒ The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. 7, which recategorized this item ~~as either a Design Error or a Class C Error~~ as a Class C ~~XXXXXX~~ Error. The PG&E document so informing the IDVP is DCP Completion Sheet, IDVP File No. 8040, Rev. 2, signed 830124.

2. Signature: *N.E. Goyen* 830222
Approved/Program Manager

PROGRAM RESOLUTION REPORT

File No. 8043

File Revision No. 7

1. Resolution of an: ☒ Open Item: ☐ Class Error
2. Independent Design Verification Program Resolution is as:
 - a. ☒ Closed Item
 - b. ☐ Deviation
 - c. ☐ Open Item with future action by PG&E: Task
3. Date Reported to PG&E 830225
4. Scheduled for TES Semimonthly Report No. March
5. Resolution based on the following documentation:

PGandE Completion Sheet, IDVP File No. 8043 signed January 24, 1983, transmitted via DCVP-SWEC-294, dated January 25, 1983, addressing separation of redundant safety-related trains in terminal boxes.

The PGandE response is acceptable based on the following. The monitor lights and the main annunciator are not safety-related and therefore, their cables are not safety-related. Because separation is required only for redundant safety-related systems in accordance with the FSAR, we consider this acceptable. However, Class IE color coded cables were used for portions of the systems. Both systems receive vital power (orange for the annunciator; purple for the monitor lights) which is then routed as orange, purple, and gray cable, depending on the destination, along with the redundant vital circuits in Class IE raceway. This EOI concern of miscoloring of cables, conductors powered from different emergency sources routed in common raceways, and the resultant safety concern is also addressed in EOI 8054 and EOI 8059.

6. Program Resolution is:

This EOI will be classified as a Closed Item and the concern of cable miscoloring will be addressed in the resolution of EOI 8054 and EOI 8059.

7. Potential Program Resolution
Report signed by John Krechting (SWEC) on 830214
Type Name/Organization Date
8. Signature: *[Signature]* 830225 (Approved/Program Manager)

File No. 8043
File Revision No. 8

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☒ File Revision No. 7 is a Program Resolution Report which recategorized this item as a Closed Item.

☐ The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. _____, which recategorized this item as either a Deviation or as a Class C or Class D Error. The PG&E document so informing the IDVP is _____.

2. Signature: W. E. Coyle 830225
Approved/Program Manager

OPEN ITEM REPORT

File No. 8044

File Revision No. 5

1. Date reported to PG&E and ~~TES~~ SWEC 830309
2. Scheduled for TES (Originator) Semimonthly Report No. March
3. Responsive to PG&E Technical Program: Task _____ (if applicable)
4. Prepared as a result of:
- a. ☐ QA Audit and Review Report of _____
 - b. ☒ Field Inspection Deficiency
 - c. ☐ Independent Calculation Deficiency
 - d. ☐ Seismic Input Deficiency
 - e. ☒ Design Methodology Deficiency
 - f. ☐ Other Deficiency
5. Structure(s), system(s) or component(s) involved:

Auxiliary Feedwater System, cable splices in control circuits.

6. Description of Concern:

Possible use of unqualified cable splices in area affected by pipe crack environment.

7. Significance of Concern:

Possible failure of splices and loss of control circuit function.

8. Recommendation:

SWEC to review DCP responses (DCP Completion Sheet, IDVP File No. 8044, Revision 3, dated 821215, and DCP Resolution Sheet, Revision 1, IDVP File No. 8044, dated 830301), and provide a recommendation for future disposition.

9. Signature: W. E. Gargan 830309 (Originator/Organization)

OPEN ITEM REPORT

File No. 8046

SWEC

File Revision No. 3

1. Date reported to PG&E and ~~TES~~ 830309
2. Scheduled for TES (Originator) Semimonthly Report No. March
3. Responsive to PG&E Technical Program: Task _____ (if applicable)
4. Prepared as a result of:
 - a. ☐ QA Audit and Review Report of _____
 - b. ☐ Field Inspection Deficiency
 - c. ☐ Independent Calculation Deficiency
 - d. ☐ Seismic Input Deficiency
 - e. ☐ Design Methodology Dericiency
 - f. ☒ Other Deficiency
5. Structure(s), system(s) or component(s) involved:

CRVP System Controls for Fans 96, 97, 98 & 99.

6. Description of Concern:

See EOI File 8046, Revision 0.

7. Significance of Concern:

See EOI File 8046, Revision 0.

8. Recommendation:

SWEC to review PGandE response (Ref. DCP Completion Sheet, Revision 2, IDVP File No. 8046 dated 830225) and recommend disposition.

9. Signature: *N E Gentry* 830309 (Originator/Organization)

OPEN ITEM REPORT

File No. 8047

File Revision No. 3

1. Date reported to PG&E and ~~XXXX~~ ^{SWEC} 830225
2. Scheduled for TES (Originator) Semimonthly Report No. March
3. Responsive to PG&E Technical Program: Task _____ (if applicable)
4. Prepared as a result of:
- a. ☐ QA Audit and Review Report of _____
 - b. ☐ Field Inspection Deficiency
 - c. ☐ Independent Calculation Deficiency
 - d. ☐ Seismic Input Deficiency
 - e. ☒ Design Methodology Deficiency
 - f. ☐ Other Deficiency
5. Structure(s), system(s) or component(s) involved:
- Auxiliary Feedwater - Steam Generator Blowdown Valves FCV 151, 154, 157, 160, 244, 246, 248, and 250.
6. Description of Concern:

See EOI 8047 Revision 0.

7. Significance of Concern:

See EOI 8047, Revision 0.

8. Recommendation:

SWEC to review PGandE response (Ref. DCP Resolution Sheet, IDVP File No. 8047, Revision 2, dated 830203) and recommend disposition.

9. Signature: W E Cahn 830225 (Originator/Organization)

PROGRAM RESOLUTION REPORT

File No. 8049

File Revision No. 8

1. Resolution of an: ☒ Open Item: ☐ Class Error
2. Independent Design Verification Program Resolution is as:
 - a. ☒ Closed Item
 - b. ☐ Deviation
 - c. ☐ Open Item with future action by PG&E: Task
3. Date Reported to PG&E 830309
4. Scheduled for TES Semimonthly Report No. March
5. Resolution based on the following documentation:
 - A. EOI 8049, Revision 7 as a PPRR/CI.
 - B. DCP Completion Sheet signed 3/3/83 transmitting PSRC approval of FSAR Update Change Notice.
 - C. DCP Completion Sheet signed 1/25/83.

6. Program Resolution is:

The technical information provided by the earlier DCP Completion Sheet and the FSAR Change provide an acceptable answer to the concern of this EOI.

7. Potential Program Resolution Report signed by Frank Sestak (SWEC) on 830207
8. Signature: *W.E. Cox* 830309 (Approved/Program Manager)

File No. 8049
File Revision No. 9

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☒ File Revision No. 8 is a Program Resolution Report which recategorized this item as a Closed Item.

☐ The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. _____, which recategorized this item as either a Deviation or as a Class C or Class D Error. The PG&E document so informing the IDVP is _____.

2. Signature: *N. E. Gayer* 830309
Approved/Program Manager

OPEN ITEM REPORT

File No. 8050

SWEC

File Revision No. 3

1. Date reported to PG&E and ~~WES~~ 830310
2. Scheduled for TES (Originator) Semimonthly Report No. March
3. Responsive to PG&E Technical Program: Task (if applicable)
4. Prepared as a result of:
 - a. ☐ QA Audit and Review Report of
 - b. ☐ Field Inspection Deficiency
 - c. ☐ Independent Calculation Deficiency
 - d. ☐ Seismic Input Deficiency
 - e. ☐ Design Methodology Deficiency
 - f. ☒ Other Deficiency
5. Structure(s), system(s) or component(s) involved:

CRVP System - Moderate Energy Line Breaks

6. Description of Concern:

In PG&E's September 1978 and December 28, 1978 submittals to the NRC, they committed to evaluating the Diablo Canyon Plant Design for the effects of moderate energy line breaks on equipment required for safe shutdown. The CRVP system is required to maintain Control Room habitability for safe shutdown but was not included in the PG&E evaluation.

7. Significance of Concern:

The DCP has evaluated the above concern and reported their findings in DCP Completion Sheet signed 830217.

8. Recommendation:

TES recommends that SWEC review DCP Completion Sheet signed 830217 and recommend future disposition of this file.

9. Signature: W. E. Coyne 830309 (Originator/Organization)

PROGRAM RESOLUTION REPORT

File No. 8051

File Revision No. 5

1. Resolution of an: ☒ Open Item: ☐ Class _____ Error _____
2. Independent Design Verification Program Resolution is as:
 - a. ☐ Closed Item
 - b. ☒ Deviation
 - c. ☐ Open Item with future action by PG&E: Task _____
3. Date Reported to PG&E 830309
4. Scheduled for TES Semimonthly Report No. March
5. Resolution based on the following documentation:
 - A. EOI 8051, Revision 4 as a PPRR/Dev.
 - B. DCP Completion Sheet signed 3/3/83 transmitting PSRC approval of FSAR Update Change Notice and stating no physical modifications.

6. Program Resolution is:

Deviation requiring change in FSAR HELB analysis to delete PT-432 which had been wrongly indentified as "essential".

No additional DCP action required.

7. Potential Program Resolution Report signed by Frank Sestak (SWEC) on 830207
8. Signature: *W.E. Cogan* 830309 (Approved/Program Manager)

File No. 8051
File Revision No. 6

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☐ File Revision No. _____ is a Program Resolution Report which recategorized this item as a Closed Item.

☒ The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. 5, which recategorized this item as ~~XXXXXX~~ a Deviation ~~XXXXXXXXXXXX~~ ~~XXXXXXXXXXXX~~. The PG&E document so informing the IDVP is DCP Completion Sheet signed 830303.

2. Signature: *NE Cope* 830309
Approved/Program Manager

OPEN ITEM REPORT

File No. 8052

SWEC

File Revision No. 3

1. Date reported to PG&E and ~~XXX~~ 830223
2. Scheduled for TES (Originator) Semimonthly Report No. March
3. Responsive to PG&E Technical Program: Task C-1-3 (if applicable)
4. Prepared as a result of:
 - a. ☐ QA Audit and Review Report of _____
 - b. ☐ Field Inspection Deficiency
 - c. ☐ Independent Calculation Deficiency
 - d. ☐ Seismic Input Deficiency
 - e. ☒ Design Methodology Deficiency
 - f. ☐ Other Deficiency
5. Structure(s), system(s) or component(s) involved:

Auxiliary Feedwater System Class IE Instruments.

6. Description of Concern:

See EOI 8052, Revision 0.

7. Significance of Concern:

See EOI 8052, Revision 0.

8. Recommendation:

SWEC to review PGandE response (Ref. PGandE Completion Sheet, IDVP File No. 8052, Revision 1) and recommend disposition.

9. Signature: *N E Cogn* 830223 (Originator/Organization)

PROGRAM RESOLUTION REPORT

File No. 8052

File Revision No. 5

1. Resolution of an: ☒ Open Item: ☐ Class _____ Error _____
2. Independent Design Verification Program Resolution is as:
 - a. ☐ Closed Item
 - b. ☒ Deviation
 - c. ☐ Open Item with future action by PG&E: Task _____
3. Date Reported to PG&E 830225
4. Scheduled for TES Semimonthly Report No. March
5. Resolution based on the following documentation:

PGandE Completion Sheet, IDVP File No. 8052, dated 821122, and other PGandE submitted supporting documentation for the environmental qualification (EQ) of the Flow Control valves (FCV) and Flow Transmitters (FT) in the Auxiliary Feedwater System show FCV 95 to be erroneously listed as being in an area not subject to a harsh environment, but actually to be qualified and FT 78 to be qualified under a different designation. The pressure transmitters, however, are being used under a limited qualification along with a surveillance program to detect aging mechanisms in this device.

6. Program Resolution is:

Since the Flow Control Valves were erroneously listed in a table for items not subject to a harsh environment but are actually qualified for the service environment, this file is classified as a deviation. The pressure transmitters, although not completely qualified, are subject to a surveillance program and the NRC is aware of this status, their qualification is no longer a concern of this EOI. No further verification is required.

7. Potential Program Resolution
Report signed by John Krechting (SWEC) on 830225
Type Name/Organization Date
8. Signature: NE [Signature] 830225 (Approved/Program Manager)

File No. 8052
File Revision No. 6

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☐ File Revision No. _____ is a Program Resolution Report which recategorized this item as a Closed Item.

☒ The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. 5, which recategorized this item as ~~XXXXXX~~ a Deviation ~~XXXXXXXXXXXX~~ ~~XXXXXXXXXXXX~~. The PG&E document so informing the IDVP is PGandE Completion Sheet, IDVP File 8052, dated 821122.

2. Signature: NE Goss 830225
Approved/Program Manager

File No. 8053
File Revision No. 7

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

- ☐ File Revision No. _____ is a Program Resolution Report which recategorized this item as a Closed Item.
- ☒ The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. 6, which recategorized this item as ~~XXXXXX~~ a Deviation, ~~XXXXXX~~ ~~Class~~ ~~XXXXXX~~ ~~Class~~ ~~XXXXXX~~. The PG&E document so informing the IDVP is Completion Sheet dated 821119.

2. Signature: NE Coyle 830225
Approved/Program Manager

OPEN ITEM REPORT

File No. 8054

SWEC

File Revision No. 3

1. Date reported to PG&E and ~~TES~~ 830309
2. Scheduled for TES (Originator) Semimonthly Report No. March
3. Responsive to PG&E Technical Program: Task _____ (if applicable)
4. Prepared as a result of:
 - a. ☐ QA Audit and Review Report of _____
 - b. ☒ Field Inspection Deficiency
 - c. ☐ Independent Calculation Deficiency
 - d. ☐ Seismic Input Deficiency
 - e. ☐ Design Methodology Deficiency
 - f. ☐ Other Deficiency
5. Structure(s), system(s) or component(s) involved:

Auxiliary Feedwater Controls

6. Description of Concern:

See EOI File 8054, Revision 0.

7. Significance of Concern:

See EOI File 8054, Revision 0.

8. Recommendation:

SWEC to review DCP response (Ref. DCP Resolution and Completion Sheets, IDVP File No. 8054 dated 830304) and recommend disposition.

9. Signature: *NE Conner* 830309 (Originator/Organization)

OPEN ITEM REPORTFile No. 8055

SWEC

File Revision No. 3

1. Date reported to PG&E and ~~WDSX~~ 830222
2. Scheduled for TES (Originator) Semimonthly Report No. March
3. Responsive to PG&E Technical Program: Task _____ (if applicable)
4. Prepared as a result of:
- a. ☐ QA Audit and Review Report of _____
 - b. ☐ Field Inspection Deficiency
 - c. ☐ Independent Calculation Deficiency
 - d. ☐ Seismic Input Deficiency
 - e. ☐ Design Methodology Deficiency
 - f. ☒ Other Deficiency
5. Structure(s), system(s) or component(s) involved:
- Auxiliary Feedwater Pump Discharge Pressure Indicators P1-52A and P1-53A.
6. Description of Concern:

Class I pressure indicators located on the main control board do not have the minimum 5" separation committed to in FSAR 8.3.3 for Class I electrical devices located in the main control board.

7. Significance of Concern:

The indicators do not conform to the separation criteria described in the FSAR.

8. Recommendation:

SWEC to review PGandE response (Ref. PGandE Resolution Sheet, IDVP File No. 8055, Revision 2) and recommend disposition.

9. Signature: NE Corp 830222 (Originator/Organization)

OPEN ITEM REPORT

File No. 8056

SWEC 830223

File Revision No. 3

1. Date reported to PG&E and ~~WES~~
2. Scheduled for TES (Originator) Semimonthly Report No. March
3. Responsive to PG&E Technical Program: Task _____ (if applicable)
4. Prepared as a result of:
 - a. ☐ QA Audit and Review Report of _____
 - b. ☐ Field Inspection Deficiency
 - c. ☐ Independent Calculation Deficiency
 - d. ☐ Seismic Input Deficiency
 - e. ☐ Design Methodology Deficiency
 - f. ☒ Other Deficiency
5. Structure(s), system(s) or component(s) involved:

Control Room Ventilation and Pressurization.

6. Description of Concern:

See EOI 8056, Revision 0.

7. Significance of Concern:

See ECI 8056, Revision 0.

8. Recommendation:

SWEC to review PGandE response (Ref. PGandE Completion Sheet, IDVP File No. 8056, Revision 2) and recommend disposition.

9. Signature: NE Corp 830223 (Originator/Organization)

PROGRAM RESOLUTION REPORT

File No. 8056

File Revision No. 5

1. Resolution of an: ☒ Open Item: ☐ Class _____ Error _____
2. Independent Design Verification Program Resolution is as:
 - a. ☒ Closed Item
 - b. ☐ Deviation
 - c. ☐ Open Item with future action by PG&E: Task _____
3. Date Reported to PG&E 830225
4. Scheduled for TES Semimonthly Report No. March
5. Resolution based on the following documentation:

PGandE Completion Sheet, IDVP File 8056 Revision 2 which indicates that the compilation of Class IE equipment predates the final drawing of the Control Room Ventilation and Pressurization (CRVP) System and, therefore, does not include items appearing on those drawings.

6. Program Resolution is:

Since there was no schedule requirement to update the Environmental Qualification Report submitted in response to Commission Order CLI-80-21, this file is reclassified as a Closed Item. No further verification is required.

7. Potential Program Resolution
Report signed by John Krechting (SWEC) on 830225
Type Name/Organization Date
8. Signature: W E R 830225 (Approved/Program Manager)

File No. 8056
File Revision No. 6

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☒ File Revision No. 5 is a Program Resolution Report which recategorized this item as a Closed Item.

☐ The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. , which recategorized this item as either a Deviation or as a Class C or Class D Error. The PG&E document so informing the IDVP is

2. Signature:

W. E. Coogan 830225
Approved/Program Manager

OPEN ITEM REPORTFile No. 8058

SWEC

File Revision No. 3

1. Date reported to PG&E and ~~XXX~~ 830223
2. Scheduled for TES (Originator) Semimonthly Report No. March
3. Responsive to PG&E Technical Program: Task _____ (if applicable)
4. Prepared as a result of:
a. ☐ QA Audit and Review Report of _____
b. ☐ Field Inspection Deficiency
c. ☐ Independent Calculation Deficiency
d. ☐ Seismic Input Deficiency
e. ☒ Design Methodology Deficiency
f. ☐ Other Deficiency

5. Structure(s), system(s) or component(s) involved:

Level Control Valves LCV 110, 111, 113, and 115 for Auxiliary Feedwater System.

6. Description of Concern:

See EOI 8058, Revision 0.

7. Significance of Concern:

See EOI 8058, Revision 0.

8. Recommendation:

SWEC to review PGandE response (Ref. PGandE Completion Sheet, IDVP File No. 8058, Revision 2, dated 830207) and recommend disposition.

9. Signature: *NEC* 830223 (Originator/Organization)

PROGRAM RESOLUTION REPORT

File No. 8058

File Revision No. 5

1. Resolution of an: ☒ Open Item: ☐ Class Error
2. Independent Design Verification Program Resolution is as:
 - a. ☒ Closed Item
 - b. ☐ Deviation
 - c. ☐ Open Item with future action by PG&E: Task
3. Date Reported to PG&E 830309
4. Scheduled for TES Semimonthly Report No. March
5. Resolution based on the following documentation:

The DCP response, dated 830207, addressed the two concerns raised by the Open Item Report EOI 8058, Revision 0. The concern of an unqualified motor capacitor was identified in the DCP environmental qualification report (CER#IH14) as an outstanding item to be completed later. CER#IH14 contains a justification for interim operation without qualification or replacement for 20,000 hours. An analysis to determine the qualified life is being conducted by Wyle Labs. DCP stated that the NRC is aware of the status of the outstanding items identified in CER#IH14 as a result of a 100% audit of the DCP environmental qualification files by the NRC in 1981.

The second concern involved the fail-safe mechanism failure. DCP stated that the fail-safe mechanism is not required during remote valve operation because it functions only when the power or control circuits are de-energized. Additionally, the fail-safe mechanism was modified and retested successfully as documented on page 16 of ITT Engineering Report No. 721.77.095.

6. Program Resolution is:

The DCP response satisfies the concerns of this EOI. DCP has committed to resolving the outstanding items previously identified to the NRC. No physical modifications or additional verification is required as a result of this file. File will be closed.

7. Potential Program Resolution
Report signed by John Krechting (SWEC) on 830304
8. Signature: *John Krechting* 830309 (Approved/Program Manager)

File No. 8058
File Revision No. 6

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☒ File Revision No. 5 is a Program Resolution Report which recategorized this item as a Closed Item.

☐ The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. , which recategorized this item as either a Deviation or as a Class C or Class D Error. The PG&E document so informing the IDVP is
_____.

2. Signature: W E Coney 830309
Approved/Program Manager

OPEN ITEM REPORT

File No. 8060

SWEC

File Revision No. 3

1. Date reported to PG&E and ~~TES~~ 830302
2. Scheduled for TES (Originator) Semimonthly Report No. March
3. Responsive to PG&E Technical Program: Task _____ (if applicable)
4. Prepared as a result of:

- a. ☐ QA Audit and Review Report of _____
b. ☐ Field Inspection Deficiency
c. ☐ Independent Calculation Deficiency
d. ☐ Seismic Input Deficiency
e. ☒ Design Methodology Deficiency
f. ☐ Other Deficiency

5. Structure(s), system(s) or component(s) involved:

Auxiliary Feedwater System controls for limiting flow to a depressurized steam generator.

6. Description of Concern:

Refer to EOI 8060, Revision 0.

7. Significance of Concern:

Refer to EOI 8060, Revision 0.

8. Recommendation:

SWEC to review DCP Resolution Sheet, IDVP File 8060, signed 830217, and provide recommendations for future disposition.

9. Signature: W E Coyne 830302 (Originator/Organization)

OPEN ITEM REPORT

File No. 8061

SWEC
~~TES~~ 830310

File Revision No. 7

1. Date reported to PG&E and ~~TES~~ 830310
2. Scheduled for TES (Originator) Semimonthly Report No. March
3. Responsive to PG&E Technical Program: Task _____ (if applicable)
4. Prepared as a result of:
 - a. ☐ QA Audit and Review Report of _____
 - b. ☐ Field Inspection Deficiency
 - c. ☐ Independent Calculation Deficiency
 - d. ☐ Seismic Input Deficiency
 - e. ☐ Design Methodology Deficiency
 - f. ☒ Other Deficiency
5. Structure(s), system(s) or component(s) involved:

Motor Ratings - AFW and CRVP Systems.

6. Description of Concern:

Refer to EOI 8061, Revision 0.

7. Significance of Concern:

Refer to EOI 8061, Revision 0.

8. Recommendation:

SWEC to review DCP response, IDVP File No. 8061, signed 830307 for future disposition.

9. Signature: W.F. Cooper for 830310 (Originator/Organization)

OPEN ITEM REPORT

File No. 8062

SWEC
~~TES~~ 830218

File Revision No. 3

1. Date reported to PG&E and TES
2. Scheduled for TES (Originator) Semimonthly Report No. March
3. Responsive to PG&E Technical Program: Task _____ (if applicable)
4. Prepared as a result of:
 - a. ☐ QA Audit and Review Report of _____
 - b. ☐ Field Inspection Deficiency
 - c. ☐ Independent Calculation Deficiency
 - d. ☐ Seismic Input Deficiency
 - e. ☒ Design Methodology Deficiency
 - f. ☐ Other Deficiency
5. Structure(s), system(s) or component(s) involved:

AFW Control Valves FCV 37, FCV 38, and FCV 95.

6. Description of Concern:

7. Significance of Concern:

8. Recommendation:

TES requests SWEC to review DCP Resolution Sheet, IDVP File No. 8062 signed 830210 and provide recommendations for future disposition.

9. Signature: N. E. Cogan 830219 (Originator/Organization)

ERROR REPORT

File No. 8062

Class: A
A,B,C or D

File Revision No. 5

PG&E Task No. 70314

1. Dates: Reported to Program Review Committee N/A
Program Review Committee Action N/A
Reported to PG&E and Originator 830310
2. Scheduled for TES Semimonthly Report No. March
3. Structure(s), system(s), or component(s) involved:

AFW Control Valves FCV37, FCV38, and FCV95.

4. Description of Error:

The above three valves were purchased to operate against a maximum differential pressure of 805 psi. The valves are located in the main steam system and could be exposed to a differential pressure in excess of 1100 psi.

5. Significance of Error:

The concern for FCV37 and FCV38 is resolved by the DCP response to EOI 8062 of February 10, 1983 and to EOI 8018 dated March 1, 1983.

FCV95 failure to close would prohibit steam from being admitted to the AFW pump turbine.

6. Recommendation:

The remaining concern regarding FCV95 will be resolved by modification of the DC actuator. The IDVP will verify this modification.

The generic concern regarding valve differential pressure is addressed in ITR-34.

7. Potential Error Report signed by John E. Krechting on 830304
Type Name/Organization Date
8. Signatures: N/A
For Program Review Committee 2/E. Krechting 830310
Approved/Program Manager

PROGRAM RESOLUTION REPORT

File No. 8063

File Revision No. 7

1. Resolution of an: ☒ Oper. Item: ☐ Class _____ Error _____
2. Independent Design Verification Program Resolution is as:
 - a. ☐ Closed Item
 - b. ☒ Deviation
 - c. ☐ Open Item with future action by PG&E: Task _____
3. Date Reported to PG&E 830309
4. Scheduled for TES Semimonthly Report No. March
5. Resolution based on the following documentation:

- A. EOI 8063, Revision 6 as a PPRR/Dev.
- B. DCP Completion Sheet signed January 27, 1983.

6. Program Resolution is:

Deviation requiring field verification of relay settings for
Auxiliary Feedwater Pump Motors.

Final closure pending IDVP verification.

7. Potential Program Resolution
Report signed by John Krechting (SWEC) on 830304
Type Name/Organization Date
8. Signature: *John Krechting* 830309 (Approved/Program Manager)

PROGRAM RESOLUTION REPORT

File No. 8064

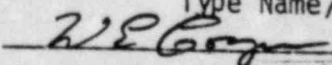
File Revision No. 2

1. Resolution of an: ☒ Open Item: ☐ Class _____ Error _____
2. Independent Design Verification Program Resolution is as:
 - a. ☐ Closed Item
 - b. ☐ Deviation
 - c. ☒ Open Item with future action by PG&E: Task _____
3. Date Reported to PG&E 830225
4. Scheduled for TES Semimonthly Report No. March
5. Resolution based on the following documentation:

Open Item Report 8064 Revision 0 describes the concerns and their significance (Items 6 and 7).

6. Program Resolution is:

PGandE to provide documentation to demonstrate that the failure of POMs 113 and 115 will not inhibit operation of LCV 113 and 115 or that POMs 113 and 115 are qualified to the environment to which they will be exposed in accordance with DCNPP-1 licensing requirements for equipment qualification such that operation of LCV 113 and 115 is not affected.

7. Potential Program Resolution
Report signed by John Krechting (SWEC) on 830215
Type Name/Organization Date
8. Signature:  830225 (Approved/Program Manager)
Date

OPEN ITEM REPORTFile No. 8064

SWEC

File Revision No. 3

1. Date reported to PG&E and ~~TES~~ 830309
2. Scheduled for TES (Originator) Semimonthly Report No. March
3. Responsive to PG&E Technical Program: Task _____ (if applicable)
4. Prepared as a result of:
a. ☐ QA Audit and Review Report of _____
b. ☐ Field Inspection Deficiency
c. ☐ Independent Calculation Deficiency
d. ☐ Seismic Input Deficiency
e. ☐ Design Methodology Deficiency
f. ☒ Other Deficiency
5. Structure(s), system(s) or component(s) involved:

Auxiliary Feedwater System (AFW) Components POM 110, 111, 113, 115.

6. Description of Concern:

See OIR File 8064, Revision 0.

7. Significance of Concern:

See OIR File 8064, Revision 0.

8. Recommendation:

SWEC to review PGandE response (Ref. PGandE Resolution and Completion Sheet, IDVP File No. 8064 dated 830301) and recommend disposition.

9. Signature: W E Long 830309 (Originator/Organization)

ERROR REPORT

File No. 9001

Class: C
A,B,C or D

File Revision No. 2

PG&E Task No. 70286

1. Dates: Reported to Program Review Committee NA
Program Review Committee Action NA
Reported to PG&E and Originator 830222
2. Scheduled for TES Semimonthly Report No. March
3. Structure(s), system(s), or component(s) involved:

Bottom Mounted Instrumentation (BMI) Supports #9, 10, and 11.

4. Description of Error:

An overstress condition could exist on the weld on BMI supports because of the poor workmanship.

5. Significance of Error:

Additional information shown as an attachment A to PGandE Completion Sheet, IDVP File No. 9025, Revision 0, signed 830109, plus the results of the visual inspection by the members of the Findings Review Committee reveal that there is no safety significance regarding this item.

6. Recommendation:

To close this file and issue an IDVP Completion Report.

7. Potential Error Report signed by Frank Sestak (SWEC) on 830211
8. Signatures: NA Type Name/Organization Date
For Program Review Committee W E Boye 830222
Approved/Program Manager

File No. 9001
File Revision No. 3

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

- ☐ File Revision No. _____ is a Program Resolution Report which recategorized this item as a Closed Item.
- ☒ Based on additional information provided by PGandE PGandE Completion Sheet, IDVP File No. 0025, Rev. 0, signed 830109 the Findings Review Committee has recommended and the IDVP has considered that the resolution is in compliance with established criteria. No physical modifications are required.

2. Signature: W E Long 830222
Approval/Program Manager

ERROR REPORT

File No. 9006

Class: C
A,B,C or D

File Revision No. 2

PG&E Task No. 70291

1. Dates: Reported to Program Review Committee NA
Program Review Committee Action NA
Reported to PG&E and Originator 830222
2. Scheduled for TES Semimonthly Report No. March
3. Structure(s), system(s), or component(s) involved:

Seal Leak Detection Tubing

4. Description of Error:

Information on CMTR differs from specification requirements. The material description listed on the ASME Code Data Report does not agree with CMTR HT #53083. The CMTR does not identify the material as being soft annealed. The unidentified materials might not achieve the structural performances for which they were specified.

5. Significance of Error:

Based on additional information shown on DCP Completion Sheet, IDVP File No. 9006 signed 830121, the IDVP has concluded that the original concern has been addressed. There is no safety significance regarding this item.

6. Recommendation:

To close this file and issue and IDVP Completion Report.

7. Potential Error Report signed by Frank Sestak (SWEC) on 830211
Type Name/Organization NA Date 830222
8. Signatures: NA [Signature]
For Program Review Committee Approved/Program Manager

File No. 9006
File Revision No. 3

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☐ File Revision No. _____ is a Program Resolution Report which recategorized this item as a Closed Item.

☒ Based on additional information provided by PGandE DCP External Action Sheet, IDVP File No. 9006 signed 930121, the Findings Review Committee has recommended and the IDVP has considered that the resolution is in compliance with established criteria. No physical modifications are required.

2. Signature: R. E. G. [Signature] 830222
Approval/Program Manager

ERROR REPORT

Class: C
A,B,C or D

File No. 9007

File Revision No. 2

PG&E Task No. _____

1. Dates: Reported to Program Review Committee NA
Program Review Committee Action NA
Reported to PG&E and Originator 830226
2. Scheduled for TES Semimonthly Report No. March
3. Structure(s), system(s), or component(s) involved: _____

BMI Couplings.

4. Description of Error:

Most fillet welds at couplings do not meet the dimension requirements of Wismer and Becker weld procedure or Westinghouse drawing.

5. Significance of Error:

Based on information provided by PGandE, including evaluation by Westinghouse, the welds are acceptable as is. There is no safety significance regarding this item.

6. Recommendation:

To close this file and issue an IDVP Completion Sheet.

7. Potential Error Report signed by Frank Sestak (SWEC) on 830225
8. Signatures: NA Type Name/Organization Date
For Program Review Committee 2 E Bay 830225
Approved/Program Manager

File No. 9007
File Revision No. 3

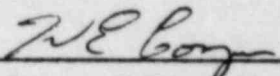
IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☐ File Revision No. _____ is a Program Resolution Report which recategorized this item as a Closed Item.

☒ Based on additional information provided by PGandE
DCP Completion Sheet, IDVP File No. 9007, signed 830217
the Findings Review Committee has recommended and the IDVP has considered that the resolution is in compliance with established criteria. No physical modifications are required.

2. Signature:  830225
Approval/Program Manager

ERROR REPORT

File No. 9013

Class: C
A,B,C or D

File Revision No. 2

PG&E Task No. 70298

1. Dates: Reported to Program Review Committee NA
Program Review Committee Action NA
Reported to PG&E and Originator 830222
2. Scheduled for TES Semimonthly Report No. March ,
3. Structure(s), system(s), or component(s) involved:

Bottom Mounted Instrumentation (BMI) Supports

4. Description of Error:

Discrepancies between installation and drawing requirements. The structural components might not perform within the parameters for which they were designed.

5. Significance of Error:

Additional information shown as an Attachment A to PG&E Completion Sheet, IDVP File No. 9025 signed 830109 reveal that low stresses are developed when applicable loads are used. There is no safety significance regarding this item.

6. Recommendation:

To close this file and issue an IDVP Completion Report.

7. Potential Error Report signed by Frank Sestak (SWEC) on 830211
Type Name/Organization Date
8. Signatures: NA NE Goy 830222
For Program Review Committee Approved/Program Manager

File No. 9013
File Revision No. 3

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

- ☐ File Revision No. _____ is a Program Resolution Report which recategorized this item as a Closed Item.
- ☒ Based on additional information provided by PGandE PGandE Completion Sheet, IDVP File No. 9025, Rev. 0, signed 830109 the Findings Review Committee has recommended and the IDVP has considered that the resolution is in compliance with established criteria. No physical modifications are required.

2. Signature: NE Coy 830222
Approval/Program Manager

ERROR REPORT

Class: C
A,B,C or D

File No. 9019

File Revision No. 2

PG&E Task No. 70304

1. Dates: Reported to Program Review Committee NA
Program Review Committee Action NA
Reported to PG&E and Originator 830225
2. Scheduled for TES Semimonthly Report No. March
3. Structure(s), system(s), or component(s) involved:

In Core Instrumentation Tubing Support.

4. Description of Error:

Operation Process Sheet Travelers covering BMI supports do not show "operation description" for some welds.

5. Significance of Error:

Based on information in DCP Completion Sheet, IDVP File No. 9019, signed 830211 plus the visual inspection by the members of the Findings Review Committee, is concluded that there is no safety significance regarding this item.

6. Recommendation:

To close this file and issue an IDVP Completion Report.

7. Potential Error Report signed by Frank Sestak (SWEC) on 830218
8. Signatures: NA Type Name/Organization Date
For Program Review Committee 830225
Approved/Program Manager

File No. 9019
File Revision No. 3

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☐ File Revision No. _____ is a Program Resolution Report which recategorized this item as a Closed Item..

☒ Based on additional information provided by PGandE
PGandE Completion Sheet, IDVP File NO. 9019, signed 830218
the Findings Review Committee has recommended and the IDVP has considered that the resolution is in compliance with established criteria. No physical modifications are required.

2. Signature: NE Guy 830225
Approval/Program Manager

ERROR REPORT

File No. 9024

Class: C
A,B,C or D

File Revision No. 2

PG&E Task No. 70310

1. Dates: Reported to Program Review Committee NA
Program Review Committee Action NA
Reported to PG&E and Originator 830222
2. Scheduled for TES Semimonthly Report No. March
3. Structure(s), system(s), or component(s) involved:

Reactor Coolant System and Associated Piping

4. Description of Error:

Ferrite readings (of 5% minimum) for welds were not recorded in all cases as required per specification 8752. Weld cracking could develop in those areas where the ferrite readings were not recorded.

5. Significance of Error:

Information provided by the Findings Review Committee reveal that there were other checks performed and procedures existed to conclude that there is no safety significance regarding this item.

6. Recommendation:

To close this file and issue an IDVP Completion Report.

7. Potential Error Report signed by Frank Sestak (SWEC) on 830211
Type Name/Organization Date
8. Signatures: NA NEC 830222
For Program Review Committee Approved/Program Manager

File No. 9024
File Revision No. 3

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☐ File Revision No. _____ is a Program Resolution Report which recategorized this item as a Closed Item.

☒ Based on ~~XXXXXXXXXX~~ information provided by ~~XXXXXX~~

the Findings Review Committee ~~XXXXXXXXXXXXXXXXXXXX~~ the IDVP has considered that the resolution is in compliance with established criteria. No physical modifications are required.

2. Signature: NE C 830222
Approval/Program Manager

ERROR REPORT

File No. 9026

Class: A
A,B,C or D

File Revision No. 2

PG&E Task No. 70312

1. Dates: Reported to Program Review Committee NA
Program Review Committee Action NA
Reported to PG&E and Originator 830222
2. Scheduled for TES Semimonthly Report No. March
3. Structure(s), system(s), or component(s) involved:

Reactor Coolant System Piping

4. Description of Error:

No documentation available that liquid penetration examination was performed as required for some temporary attachments to RCS piping.

5. Significance of Error:

Visual examination reveals a linear indication. For the removed lugs, there is no indication of LP examination.

6. Recommendation:

PG&E to implement an NDE of the defined areas.

The IDVP/Findings Review Committee will review the results of the performed tests to further process this file.

7. Potential Error Report signed by Frank Sestak (SWEC) on 830211
Type Name/Organization Date
8. Signatures: NA NEC 830222
For Program Review Committee Approved/Program Manager

OPEN ITEM REPORT

File No. 9026

File Revision No. 3

1. Date reported to PG&E and ~~TES~~ ^{SWEC} 830225
2. Scheduled for TES (Originator) Semimonthly Report No. March
3. Responsive to PG&E Technical Program: Task _____ (if applicable)
4. Prepared as a result of:
- a. ☒ QA Audit and Review Report of Const. QA
 - b. ☐ Field Inspection Deficiency
 - c. ☐ Independent Calculation Deficiency
 - d. ☐ Seismic Input Deficiency
 - e. ☐ Design Methodology Deficiency
 - f. ☐ Other Deficiency
5. Structure(s), system(s) or component(s) involved:

Reactor Coolant System Piping

6. Description of Concern:

No documentation available that liquid penetrant examination was performed for some temporary attachments to RCS piping.

7. Significance of Concern:

To be determined by the Findings Review Committee.

8. Recommendation:

TES requests SWEC to review DCP Completion Sheet signed 830224 and provide recommendation for future disposition.

9. Signature: W.E. Corp 830225 (Originator/Organization)

PROGRAM RESOLUTION REPORT

File No. 9026

File Revision No. 5

1. Resolution of an: ☐ Open Item: ☒ Class A Error
2. Independent Design Verification Program Resolution is as:
 - a. ☒ Closed Item
 - b. ☐ Deviation
 - c. ☐ Open item with future action by PG&E: Task _____
3. Date Reported to PG&E 830309
4. Scheduled for TES Semimonthly Report No. March
5. Resolution based on the following documentation:

Preliminary information from PG&E dated February 23, 1983, PG&E Completion Report dated February 24, 1982, and additional information from PG&E dated March 7, 1983. SWEC independently performed L.P. examination of lug removal area 14 on loop 1-4 on March 3, 1983 as documented in SWEC Trip Report dated March 7, 1983.

Results of the activities discussed in these documents indicate that there is no safety significance regarding this item.

6. Program Resolution is:

To close this file and issue an IDVP Completion Report.

7. Potential Program Resolution
Report signed by Frank Sestak, Jr./SWEC on 830308
Type Name/Organization Date
8. Signature: [Signature] (Approved/Program Manager)

File No. 9026
File Revision No. 6

IDVP COMPLETION REPORT

The DCNFP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☒ File Revision No. 5 is a Program Resolution Report which recategorized this item as a Closed Item.

☐ The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. _____, which recategorized this item as either a Deviation or as a Class C or Class D Error. The PG&E document so informing the IDVP is _____.

2. Signature:

NECoy 842529
Approved/Program Manager

ERROR REPORT

File No. 9029

Class: C
A,B,C or D

File Revision No. 2

PG&E Task No. 70316

1. Dates: Reported to Program Review Committee NA
Program Review Committee Action NA
Reported to PG&E and Originator 830225
2. Scheduled for TES Semimonthly Report No. March
3. Structure(s), system(s), or component(s) involved: _____

Reactor Coolant System.

4. Description of Error:

Numerous instances of arc strikes, weld spatter, rusting, pitting, overgrinding, paint spatter on RCS loops and surge lines.

5. Significance of Error:

Based on information in DCP Resolution Sheet, IDVP File No. 9029, signed 830211, is concluded that the concerns will not compromise the safe operation of the plant.

6. Recommendation:

To close this file and issue an IDVP Completion Report.

7. Potential Error Report signed by Frank Sestak (SWEC) on 830218
8. Signatures: NA Type Name/Organization Date
For Program Review Committee 2/2/83 830225
Approved/Program Manager

File No. 9029
File Revision No. 3

IDVP COMPLETION REPORT

The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

1. The action which completes the IDVP effort is:

☐ File Revision No. _____ is a Program Resolution Report which recategorized this item as a Closed Item.

☒ Based on additional information provided by PGandE
PGandE Completion Sheet, IDVP File No. 9029, signed 830211
the Findings Review Committee has recommended and the IDVP has considered that the resolution is in compliance with established criteria. No physical modifications are required.

2. Signature: NE Coy 830225
Approval/Program Manager

APPENDIX A
LOOKAHEAD

TABLE A-1

LOOKAHEAD REPORT

MARCH 11, 1983 THROUGH APRIL 8, 1983

<u>DATE(S)</u>	<u>LOCATION</u>	<u>SUBJECT</u>	<u>PARTICIPANTS</u>
3/14/83	San Francisco	Review Piping Internal Technical Program	TES/RLCA/DCP
3/14/83	San Francisco	Review Civil Internal Technical Program	TES/RLCA/DCP
3/17/83	SWEC	Phase II EOI Status	TES/SWEC/DCP
3/28/83	DCNPP Site	Review of Jet Impingement Areas	TES/SWEC/DCP
3/29-30/83 (Tentative)	San Francisco	Civil Structure Review Meeting	TES/RLCA/DCP

TABLE A-2
IDVP SCHEDULE RELATIVE TO
DCNPP-1 3-STEP LICENSING

<u>ACTIVITY</u>	<u>IDVP REPORTS</u>		
	<u>FUEL LOAD</u>	<u>LOW POWER</u>	<u>FULL POWER</u>
Phase I	Status 4-8-83	Final 6-15-83	-
Phase II	Status 4-8-83	Status 5-6-83	Final 6-15-83
ITP-QA	Final 4-15-83	-	-
Construction QA	Final 3-10-83	-	-
PG&E/ <u>W</u> Interface	Final 3-18-83	-	-
Hosgri Spectra	Final 4-1-83	-	-
Non-Hosgri Spectra	Final 4-1-83	-	-
Supplement for As-Built Verification	Status 6-15-83	Status 6-30-83	Status 6-30-83

RFR

50

R. F. REEDY, INCORPORATED

236 N. Santa Cruz Avenue
Los Gatos, California 95030 • (408) 354-9110

March 16, 1983
014-100-014

Mr. G. A. Maneatis
Senior Vice President
Facilities Development
PACIFIC GAS & ELECTRIC COMPANY
77 Beale Street
San Francisco, CA 94106

- Mr. H. R. Denton
Director
Office of Nuclear Reactor Regulation
U. S. NUCLEAR REGULATORY COMMISSION
Washington, D. C. 20555

Mr. R. H. Engelken
Regional Administrator
Region V
U. S. NUCLEAR REGULATORY COMMISSION
1450 Maria Lane, Suite 210
Walnut Creek, CA 94956

Dr. W. E. Cooper
TELEDYNE ENGINEERING SERVICES
130 Second Avenue
Waltham, MA 02254

Docket No. 50-275
Diablo Canyon Unit 1
License No. DPR-76

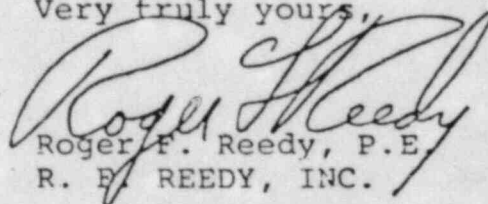
Subject: Semimonthly Report
Progress Report #25

Gentlemen:

R. F. REEDY, INC. did not issue any Open Item reports during the reporting period February 14, 1983 to March 11, 1983.

As required by DCNPP-IDVPP-PP-05 and RFR-002, individuals assigned by this organization to the IDVP have completed an acceptable Statement Regarding Potential or Apparent Conflicts of Interest.

Very truly yours,


Roger F. Reedy, P.E.
R. F. REEDY, INC.

RFR:fh
Disbursement List Attached

March 16, 1983
Semimonthly Report
Disbursement List

cc: H. Schierling (2)
Office of Nuclear Reactor Regulation
U. S. NUCLEAR REGULATORY COMMISSION
7920 Norfolk Avenue
Bethesda, Maryland 20114

R. Fray
BECHTEL POWER CORPORATION
45 Fremont Street
23rd Floor, Section A17
San Francisco, CA 94105

F. Sestak, Jr.
Chief Power Engineer
STONE & WEBSTER ENGINEERING CORPORATION
245 Summer Street
Boston, MA 02107

R. L. Cloud
R. L. CLOUD & ASSOCIATES
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Berkeley, CA 94710

E. Denison
R. L. CLOUD & ASSOCIATES
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Berkeley, CA 94710

H. H. Brown
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1900 M. Street, N. W.
Washington, D. C. 20035

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P.O. Box 1178
Oklahoma City, OK 73101

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CENTER FOR LAW IN THE PUBLIC INTEREST
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NORTON, BURKE, BERRY & FRENCH, P.C.
3216 N. 3rd Street
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Phoenix, AZ 85012

A. C. Gehr
SNELL & WILMER
3100 Valley Bank Center
Phoenix, AZ 95073

STONE & WEBSTER ENGINEERING CORPORATION



245 SUMMER STREET, BOSTON, MASSACHUSETTS

ADDRESS ALL CORRESPONDENCE TO P.O. BOX 2325, BOSTON, MASS. 02107

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DESIGN
CONSTRUCTION
REPORTS
EXAMINATIONS
CONSULTING
ENGINEERING

Mr. G.A. Maneatis, Executive Vice President
Facilities Development
Pacific Gas and Electric Company
77 Beale Street
San Francisco, CA 94106

March 18, 1983

J.O. No. 14296.10
DCS-351Q

Mr. H.R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Mr. K.H. Engelken, Regional Administrator
Region V
U.S. Nuclear Regulatory Commission
1450 Maria Lane, Suite 210
Walnut Creek, CA 94596

Docket No. 50-275
Diablo Canyon Unit 1
License No. DPR-76

SWEC INTERIM TECHNICAL REPORT

Gentlemen:

Attached is Interim Technical Report, Number 38, Revision 1, entitled "Final Report on Construction Quality Assurance Evaluation of Wismer & Becker."

Very truly yours,

F. Sestak, Jr.
Project Manager, Diablo Canyon Nuclear Power Plant

Enclosure

cc: RRFray (45)
RFReedy
WTDenison
WECoooper (10)
HRSchierling (40)

MJStrumwasser
DFFleischaker
JRRaynolds
BMorton
ACGehr
RHubbard

83230054

PACIFIC GAS & ELECTRIC COMPANY
DIABLO CANYON NUCLEAR POWER PLANT
INDEPENDENT DESIGN VERIFICATION PROGRAM

INTERIM TECHNICAL REPORT NO. 38

REVISION 1

FINAL REPORT ON CONSTRUCTION QUALITY ASSURANCE EVALUATION

OF

WISMER & BECKER

PERFORMED BY

STONE & WEBSTER ENGINEERING CORPORATION

DOCKET NO. 50-275

LICENSE NO. DPR-76

PROJECT MANAGER:

Fra. M. Sestak, Jr.
F. Sestak, Jr.

DATE 3-16-83

~~8503330057~~

33 pp

PROGRAM MANAGER'S PREFACE

DIABLO CANYON NUCLEAR POWER PLANT - UNIT I

INDEPENDENT DESIGN VERIFICATION PROGRAM

INTERIM TECHNICAL REPORT

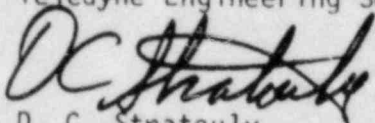
FINAL REPORT ON CONSTRUCTION QUALITY ASSURANCE EVALUATION
OF
WISMER & BECKER

This is the thirty-eighth of a series of Interim Technical Reports prepared by the DCNPP-IDVP for the purpose of providing a status report of the program.

This reports the recommendations and conclusions of the IDVP with respect to the initial sample.

As IDVP Program Manager, Teledyne Engineering Services, (TES), has approved this ITR including the conclusions and recommendations presented. The methodology followed by TES in performing this review and evaluation is described by Appendix B to this report.

ITR Reviewed and Approved
IDVP Program Manager
Teledyne Engineering Services



D. C. Stratouly
Assistant Project Manager

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- A EOI FILES
- B PROGRAM MANAGER'S ASSESSMENT

SECTION 1

INTRODUCTION

Stone & Webster Engineering Corporation (SWEC) was engaged by Teledyne Engineering Services (TES) to perform evaluations and verifications of the quality related activities of Wismer & Becker (W&B) who performed installation of NSSS piping, and G.F. Atkinson (GFA) who performed civil/structural work in the containment building at the Diablo Canyon Nuclear Power Plant (DCNPP) - Unit 1.

SWEC has performed the evaluation and verification in accordance with the Independent Design Verification Program (IDVP), Program Plan, Revision 1, Adjunct Program for Evaluation of Construction Quality Assurance, dated October 1, 1982, issued by TES as IDVP Program Manager.

This report concentrates on the work performed by W&B which consisted primarily of (1) final setting of the major NSSS components (reactor vessel, steam generators, etc), and (2) installation of the reactor coolant piping, pressurizer surge line piping, bottom mounted instrumentation (BMI) tubing, piping and tubing supports, and reactor vessel flange seal leak detection tubing. A separate report has been issued with respect to GFA.

The review was conducted at the site from September 28, 1982, through November 5, 1982, according to the objectives of the evaluation defined in Section 2.0, Paragraph 2.1 of the IDVP Plan. The subsequent evaluation was

structured to assess whether the construction of the DCNPP was performed in accordance with quality requirements appropriate for the time of plant construction.

The Quality Assurance Program Evaluation was performed by a team of engineers experienced in various aspects of nuclear power plant construction quality assurance and inspection and was led by a Senior Field Quality Control Representative.

The Quality Assurance Program Evaluation was performed by individuals certified as Auditors by SWEC in accordance with approved procedures and ANSI-N45.2.23. The construction verification was performed by individuals certified as Inspectors in the appropriate discipline by SWEC in accordance with approved procedures and ANSI-N45.2.6.

The review started with an evaluation to determine if the construction documentation provided evidence that the construction work correctly incorporated essential design features. To ascertain this, the areas of W&B's responsibilities were physically verified for compliance to PG&E Specification 8752, the W&B QA/QC Manual, and applicable drawings.

SECTION 2

DEFINITION OF ITEMS REVIEWED

An appropriate sample for evaluation was selected from the work of this contractor to provide evidence of his quality practices in each area of activity.

2.1 EVALUATION OF CONSTRUCTION QUALITY ASSURANCE PROGRAM

Task A Consisted of a review of contractor's quality assurance programs to determine if adequate controls and practices were evident to assure the quality of construction and the incorporation of essential design features into the completed plant and to determine if controls were consistent with applicable regulatory requirements at the time the work was performed.

2.2 VERIFICATION OF PHYSICAL INSTALLATION

Task B Consisted of an evaluation to determine if the physical installation of selected components of safety systems and structures conform to the requirements of design drawings and specifications and whether required inspections were performed.

SECTION 3
DESCRIPTION OF REVIEW

3.1 EVALUATION OF CONSTRUCTION QUALITY ASSURANCE PROGRAM

The evaluation was conducted using a prepared checklist consisting of 82 attributes that were derived from requirements contained in the following documents:

- PG&E Specification 8752, "Installation of the Nuclear Steam Supply Systems for Units 1 and 2 - Diablo Canyon Site," May 3, 1972
- Wismer & Becker QA/QC Manual, June 6, 1973
- Applicable drawings.

Records obtained from the permanent plant file were reviewed, on a random basis, for objective evidence that requirements were met in a satisfactory manner. The type of records reviewed included ASME III Certificates of Authorization, Certified Material Test Reports (CMTRs), Code Data Reports, Operation Process Sheet Travelers (installation and inspection documentation), drawings, welding procedures, welder qualification records, weld data sheets, welding electrode control records, nondestructive examination (NDE) procedures, personnel qualifications and reports, hydrostatic test procedures reports, audit reports, and nonconformance reports (NCRs).

3.2 VERIFICATION OF PHYSICAL INSTALLATION

Checklists were prepared based on design drawings, specification requirements, reported as-built conditions, and other appropriate design data (i.e., flow diagrams) for conducting the physical verification of construction practices of the following systems:

- Reactor coolant piping
- Pressurizer surge line piping
- Bottom mounted instrumentation tubing
- Reactor vessel leak detection line
- Pipe and tubing supports for the four items above

Inspections were performed utilizing prepared checklists consisting of 53 pre-selected attributes extracted from specifications, drawings, and quality assurance/quality control procedures.

All accessible welds in systems described above were visually examined to verify that fabrication, examination and documentation were performed to approved procedures. All insulation was removed for the inspection.

Each piping system was examined by individual spool and welds. Welds were visually examined for evidence of undercut, slag, porosity, weld profile, weld identification, radiographic markers, and welder's symbol.

Piping was verified against PG&E drawings and W&B fabrication records. The W&B Quality Assurance Manual, PG&E drawings, Southwest Fabricating and Welding Company drawings, Westinghouse drawings, and ASME and ANSI codes and standards were referred to as necessary.

Welding was verified utilizing W&B weld procedures (approved by PG&E), W&B fabrication records, welder qualification records and weld rod issue records. Radiograph interpretation sheets were examined, but no film was reviewed as part of the physical verification.

Reactor coolant piping weld records consisted of fabrication processes sheets broken down by loop, weld, and quadrant (4 loops, 8 welds per loop, 4 quadrants per weld) and included documentation of preheat, interpass temperatures, ferrite content, filler material, current and voltage used during welding, visual inspection results, NDE reports, and PG&E representative signoff at pre-selected hold points.

Weld maps included in the documentation packages indicated welders assigned to each weld or part of a weld, a record of arc strike repairs and lug removal. NDE records were also part of the weld documentation package.

The records were reviewed to determine whether the results recorded were in accordance with program and procedure requirements.

An inspection of internal surfaces of reactor coolant piping was one attribute on the checklist. Due to clean conditions restrictions in the reactor cavity area and the vessel being partly flooded, it was only possible to perform internal inspection of the hot and cold legs of loop 3.

Internal surfaces of pipe and welds on loop 3 were visually inspected for cleanliness, surface condition, weld spatter, arc strikes, weld profile, undercut, correct reinforcement, correct grinding, porosity, slag, and correct root preparation.

BMI tubing records consisted of two packages which contained the documentation of all 350 welds. These records were examined for evidence of correct documentation of:

- Correct weld identification
- Assignment of qualified welder
- Correct preheat
- Correct electrical characteristics
- Visual inspections
- NDE
- Repair data.

Since the Reactor Vessel was partly flooded and subject to restricted access due to cleanliness restrictions, the reactor vessel leak detection system could not be completely physically examined. The accessible portion was verified using PG&E drawings for orientation, identification, location, piping configuration, and correct material.

Supports in each system were visually examined for weld quality, and that location, orientation, and installation conformed to specification and drawing requirements.

PG&E and Westinghouse drawings, W&B weld procedures, weld rod issue records and W&B fabrication process sheets were reviewed.

Welds on supports were examined for evidence of slag, porosity, undercut, weld spatter, and correct weld profile.

All bolts were examined for correct material identification, location, orientation, bolt and nut seating, and thread engagement.

Support components were examined for evidence of correct identification, location, orientation, fabrication, installation and repair records.

Steam generator snubbers were examined to determine if location and orientation agreed with PG&E drawings. Pin-to-pin measurements were recorded for all 16 snubbers, and any deviations from PG&E drawings were noted.

Visual inspections were performed using PG&E drawings to verify that components (i.e., reactor vessel, steam generators, pressurizer, etc) were correctly identified and properly oriented.

In conjunction with the physical verification, supporting documentation (i.e., welder qualification, weld procedure approvals, NDE qualifications, and other inspection reports) were reviewed for compliance to specification and program requirements for the time of construction.

SECTION 4

SUMMARY OF REVIEW RESULTS

4.1 EVALUATION OF CONSTRUCTION QUALITY ASSURANCE PROGRAM

It was found that W&B was in compliance with requirements for 65 of 80 attributes that were evaluated (two attributes were determined to be not applicable during the course of the evaluation). In accordance with specification requirements, the contractor's Quality Assurance Program was submitted to and approved by PG&E. In addition, the contractor was a holder of the ASME, Section III, Certification of Authorization for installation of nuclear piping. The required Code Data Reports were properly signed and certified by the Authorized Nuclear Inspector (ANI). Travelers, specifications, drawings, and procedures were approved by PG&E prior to work being performed; the travelers, which included inspection and test requirements, were completed as work was performed including the signoff at designated hold points by the contractor's inspector and the ANI. Further examples of activities which were found to be in compliance with the source documents and associated codes and standards are as follows:

- Installation operations (setting, shimming, alignment, etc) of NSSS major components
- Cleanliness and cleaning and flushing operations in accordance with procedures approved by PG&E

- Qualification of welding procedures and approval by PG&E and the ANI
- Selection of proper welding process (GTAW, SMAW)
- Control of welding electrodes
- Control of interpass temperatures
- Repair of reported weld defects in accordance with procedures approved by PG&E
- Approval of NDE procedures and NDE personnel qualifications by PG&E and the ANI
- Performance of required P/E
- Performance of audits
- Control of reported nonconformances, including the approval of dispositions by PG&E.

A total of 3,528 documents was reviewed. As a result of the review, 16 Open Item Reports were issued to document findings which required resolution. Most of these items can be characterized as omissions or as an inspection activity which had to be evaluated to determine its impact on the physical installation.

4.2 VERIFICATION OF PHYSICAL INSTALLATION

It was found that W&B was in compliance with program requirements for the majority of the attributes that were verified. The configuration, cleanliness, surface finish of welds, and overall workmanship were in compliance with drawings and specifications with some exceptions noted in the report. Of 2,298 items inspected, 9 Open Item Reports were issued. The items identified primarily demonstrate either a conflict between a drawing requirement and the installation or apparent field changes that may not have been properly documented.

SECTION 5
EOI REPORTS ISSUED

Twenty-five EOI files were opened for the Construction Quality Assurance evaluation of the work performed by W&B on NSSS piping at the Diablo Canyon Nuclear Power Plant - Unit 1. The status of these files is summarized in Appendix A.

EOI 9001 was issued because the majority of welds on supports 9, 10, and 11 (PG&E Drawing Nos. 443247 and 443248) exhibited incomplete fillet, short weld length, undercut weld, spatter, arc strikes, slag, and poor workmanship. This file was reviewed and analyzed with the additional information provided by PG&E. The Findings Review Committee recommended and the IDVP concluded that the file is resolved as an Error Class C (Observation) in accordance with the program plan. No physical modifications were required. An IDVP Completion Report has been issued.

EOI 9002 was issued because the geometry of the welds covering BMI system supports did not comply with the requirements as shown in PG&E Drawing No. 443248. This file was reviewed and analyzed with the additional information provided by PG&E. The Findings Review Committee recommended and the IDVP concluded that the file is resolved as an Error Class C (Observation) in accordance with program plan. No physical modifications were required. An IDVP Completion Report has been issued.

EOI 9003 was issued because the geometry of the welds covering BMI tubing did not comply with the requirements of W&E Weld Procedure 3500-2. This file was reviewed and analyzed with additional information provided by PG&E. The Findings Review Committee recommended and the IDVP concluded that the file is resolved as an Error Class C (Observation) in accordance with the program plan. No physical modifications were required. An IDVP Completion Report has been issued.

EOI 9004 was issued because Certified Material Test Reports did not comply with the requirements specified in Westinghouse Drawing No. 685J702, Revision 4. This file was reviewed and analyzed with the additional information provided by PG&E. The Findings Review Committee recommended and the IDVP concluded that the file is resolved as an Error Class C (Observation) in accordance with the program plan. No physical modifications were required. An IDVP Completion Report has been issued.

EOI 9005 was issued because review of welding procedures apparently did not comply with PG&E Specification 8752 requirements. This file was reviewed and analyzed with the additional information provided by PG&E. The Findings Review Committee recommended and the IDVP concluded that the file is resolved as a Program Resolution Report, Closed Item (Invalid) in accordance with the program plan. No physical modifications were required. An IDVP Completion Report has been issued.

EOI 9006 was issued because CMTRs did not comply with PG&E Specification 8752 requirements. This file was reviewed and analyzed with the additional information provided by PG&E. The Findings Review Committee recommended and the IDVP concluded that the file is resolved as an Error Class C (Observation) in accordance with the program plan. No physical modifications were required. An IDVP Completion Report has been issued.

EOI 9007 was issued because the geometry of the welds at BMI couplings did not comply with the requirements of Westinghouse Drawing No. W-685J702 or W&B Weld Procedure 3500-2. This file was reviewed and analyzed with the additional information provided by PG&E. The Findings Review Committee recommended and the IDVP concluded that the file is resolved as an Error Class C (Observation) in accordance with the program plan. No physical modifications were required. An IDVP Completion Report has been issued.

EOI 9009 was issued because documentation on one weld radiographic report did not comply with the requirements of Westinghouse Drawing No. 685J702. This file was reviewed and analyzed with the additional information provided by PG&E. The Findings Review Committee recommended and the IDVP concluded that the file is resolved as a Program Resolution Report, Closed Item (Invalid) in accordance with the program plan. No physical modifications were required. An IDVP Completion Report has been issued.

EOI 9010 was issued because records of weld procedures apparently did not show compliance with the requirements of PG&E Specification 8752. This file was reviewed and analyzed with the additional information provided by PG&E. The Findings Review Committee recommended and the IDVP concluded that the

file is resolved as a Program Resolution Report, Closed Item (Invalid) in accordance with the program plan. No physical modifications were required. An IDVP Completion Report has been issued.

EOI 9011 was issued because the welding records did not show compliance with the requirements of PG&E Specification 8752. This file was reviewed and analyzed with the additional information provided by PG&E. The Findings Review Committee recommended and the IDVP concluded that the file is resolved as an Error Class C (Observation) in accordance with the program plan. No physical modifications were required. An IDVP Completion Report has been issued.

EOI 9012 was issued because deficiencies were found in the welding procedures required by PG&E Specification 8752. This file was reviewed and analyzed with the additional information provided by PG&E. The Findings Review Committee recommended and the IDVP concluded that the file is resolved as an Error Class C (Observation) in accordance with the program plan. No physical modifications were required. An IDVP Completion Report has been issued.

EOI 9013 was issued because of various discrepancies between installation and drawing requirements. This file was reviewed and analyzed with the additional information provided by PG&E. The Findings Review Committee recommended and the IDVP concluded that the file is resolved as an Error Class C (Observation) in accordance with the program plan. No physical modifications were required. An IDVP Completion Report has been issued.

EOI 9014 was issued because of apparent lack of documentation certifying the halogen content as required by PG&E Specification 8752. This file was reviewed and analyzed with the additional information provided by PG&E. The Findings Review Committee recommended and the IDVP concluded that the file is resolved as a Program Resolution Report, Closed Item (Invalid) in accordance with the program plan. No physical modifications were required. An IDVP Completion Report has been issued.

EOI 9017 was issued because bolt material requirements as per Drawing No. 438271 were not met. This file was reviewed and analyzed with the additional information provided by PG&E. The Findings Review Committee recommended and the IDVP concluded that the file is resolved as an Error Class C (Observation) in accordance with the program plan. No physical modifications were required. An IDVP Completion Report has been issued.

EOI 9018 was issued because the manufacturer's record of welder performance did not meet ASME IX requirements. This file was reviewed and analyzed with the additional information provided by PG&E. The Findings Review Committee recommended and the IDVP concluded that the file is resolved as an Error Class C (Observation) in accordance with the program plan. No physical modifications were required. An IDVP Completion Report has been issued.

EOI 9019 was issued because welding documentation did not comply with PG&E Specification 8752 requirements. This file was reviewed and analyzed with the additional information provided by PG&E. The Findings Review Committee recommended and the IDVP concluded that the file is resolved as an Error

Class C (Observation) in accordance with the program plan. No physical modifications were required. An IDVP Completion Report has been issued.

EOI 9020 was issued because records of radiographic inspection may be inaccurate. This file was reviewed and analyzed with the additional information provided by PG&E. The Findings Review Committee recommended and the IDVP concluded that the file is resolved as an Error Class C (Observation) in accordance with the program plan. No physical modifications were required. An IDVP Completion Report has been issued.

EOI 9022 was issued because voltage/ampere requirements of Weld Procedure 3500-2 were not met. This file was reviewed and analyzed with the additional information provided by PG&E. The Findings Review Committee recommended and the IDVP concluded that the file is resolved as an Error Class C (Observation) in accordance with the program plan. No physical modifications were required. An IDVP Completion Report has been issued.

EOI 9023 was issued because voltage/ampere requirements of Weld Procedure 3500-1 were not met. This file was reviewed and analyzed with the additional information provided by PG&E. The Findings Review Committee recommended and the IDVP concluded that the file is resolved as an Error Class C (Observation) in accordance with the program plan. No physical modifications were required. An IDVP Completion Report has been issued.

EOI 9024 was issued because ferrite readings for welds were not recorded as required. This file was reviewed and analyzed with the additional information provided by PG&E. The Findings Review Committee recommended and the

IDVP concluded that the file is resolved as an Error Class C (Observation) in accordance with the program plan. No physical modifications were required. An IDVP Completion Report has been issued.

EOI 9025 was issued because drilled holes on one tubing support did not appear on engineering drawings. This file was reviewed and analyzed with the additional information provided by PG&E. The Findings Review Committee recommended and the IDVP concluded that the file is resolved as an Error Class C (Observation) in accordance with the program plan. No physical modifications were required. An IDVP Completion Report has been issued.

EOI 9026 was issued because there are no records of nondestructive examination performed on the areas of removal of some temporary attachments to RCS piping. This file was reviewed and analyzed with the additional information provided by PG&E. The Findings Review Committee initially determined that this file was an Error Class A (Finding). PG&E performed corrective action as documented in the Completion Report submitted regarding this item. TES issued an Open Item Report, and the Findings Review Committee performed verification of PG&E's corrective action. The Findings Review Committee determined that PG&E's corrective action is acceptable. The Findings Review Committee recommended and the IDVP concluded that the file is resolved as a Program Resolution Report, Closed Item, in accordance with the program plan. No physical modifications were required. An IDVP Completion Report has been issued.

EOI 9027 was issued because there were no records of nondestructive examination performed on tube-to-seal table welds as required by PG&E Specification 8752. This file was reviewed and analyzed with the additional information provided by PG&E. The Findings Review Committee recommended and the IDVP concluded that the file is resolved as an Error Class C (Observation) in accordance with the program plan. No physical modifications were required. An IDVP Completion Report has been issued.

EOI 9028 was issued because weld documentation apparently did not identify the welder to specific welds as required by PG&E Specification 8752. This file was reviewed and analyzed with the additional information provided by PG&E. The Findings Review Committee recommended and the IDVP concluded that the file is resolved as a Program Resolution Report, Closed Item (Invalid) in accordance with the program plan. No physical modifications were required. An IDVP Completion Report has been issued.

EOI 9029 was issued because of several instances of arc strikes, weld splatter, rusting, pitting, overgrinding, and paint splatter on RCS loops and surge lines. This file was reviewed and analyzed with the additional information provided by PG&E. The Findings Review Committee recommended and the IDVP concluded that the file is resolved as an Error Class C (Observation) in accordance with the program plan. No physical modifications were required. An IDVP Completion Report has been issued.

SECTION 6

EVALUATION OF REVIEW RESULTS

6.1 EVALUATION OF CONSTRUCTION QUALITY ASSURANCE PROGRAM

The documentation reviewed indicates that the contractor performed his work in compliance with PG&E Specification 8752, the approved Quality Assurance Manual, and applicable drawings.

As a result of the documentation reviewed during this evaluation and based on the Quality Assurance Program for construction of the NSSS piping systems and supports which is judged to be adequate, it is concluded that the work performed met the applicable standards for the time of plant construction.

6.2 VERIFICATION OF PHYSICAL INSTALLATION

Results of the physical verification indicated that the contractor did comply with the design criteria of PG&E Specification 8752, applicable drawings and their Quality Assurance Manual and, to the extent verified, resulted in adequate installation of the Reactor Coolant System.

SECTION 7
CONCLUSIONS

The Review Team considers that, in the areas reviewed, the controls and practices in place during construction were adequate to assure the quality of construction. Further, to the extent reviewed, the as-constructed physical installation conforms to the requirements of design drawings and specifications, and the required inspections were performed and appropriately documented.

Based on the results of the reviews conducted of both G. F. Atkinson and Wismer & Becker, it is considered that PG&E adequately controlled construction contractors selected as well as the actual construction activities performed at DCNPP-Unit 1. No additional verification is recommended.

APPENDIX A

EOI FILES

APPENDIX A

DCNPP IDVP STATUS REPORT

<u>REV.0</u>		<u>LATEST REVISION</u>				<u>ACTION</u>		<u>SUBJECT</u>
<u>FILE NO.</u>	<u>DATE</u>	<u>REV.</u>	<u>DATE</u>	<u>BY</u>	<u>STATUS</u>	<u>MODS</u>		
9001	821102	0	821102	SWEC	OIR			Workmanship on welds on BMI supports
9001	821102	1	830211	SWEC	PER/C			Workmanship on welds on BMI supports
9001	821102	2	830222	TES	ER/C			Workmanship on welds on BMI supports
9001	821102	3	830222	TES	CR	NO		Workmanship on welds on BMI supports
9002	821102	0	821102	SWEC	OIR			Weld lengths on BMI supports
9002	821102	1	830204	SWEC	PER/C			Weld lengths on BMI supports
9002	821102	2	830209	TES	ER/C			Weld lengths on BMI supports
9002	821102	3	830209	TES	CR	NO		Weld lengths on BMI supports
9003	821102	0	821102	SWEC	OIR			Bottom mounted instrument tubing
9003	821102	1	830112	SWEC	PER/C			Bottom mounted instrument tubing
9003	821102	2	830117	TES	ER/C			Bottom mounted instrument tubing
9003	821102	3	830117	TES	CR	NO		Bottom mounted instrument tubing
9004	821102	0	821102	SWEC	OIR			UT inspection of BMI tubes
9004	821102	1	830112	SWEC	PER/C			UT inspection of BMI tubes
9004	821102	2	830117	TES	ER/C			UT inspection of BMI tubes
9004	821102	3	830117	TES	CR	NO		UT inspection of BMI tubes
9005	821102	0	821102	SWEC	OIR			Reactor coolant weld procedures
9005	821102	1	830112	SWEC	PPRR/CI			Reactor coolant weld procedures
9005	821102	2	830117	TES	PPRR/CI			Reactor coolant weld procedures
9005	821102	3	830117	TES	CR	NO		Reactor coolant weld procedures
9006	821102	0	821102	SWEC	OIR			Seal leak detection tubing
9006	821102	1	830211	SWEC	PER/C			Seal leak detection tubing
9006	821102	2	830222	TES	ER/C			Seal leak detection tubing
9006	821102	3	830222	TES	CR	NO		Seal leak detection tubing
9007	821102	0	821102	SWEC	OIR			BMI couplings
9007	821102	1	830225	SWEC	PER/C			BMI couplings
9007	821102	2	830226	TES	ER/C			BMI couplings
9007	821102	3	830226	TES	CR	NO		BMI couplings
9009	821102	0	821102	SWEC	OIR			Radiograph-reactor coolant sys.(Thimble Guide Tubes)
9009	821102	1	830112	SWEC	PPRR/CI			Radiograph-reactor coolant sys.(Thimble Guide Tubes)
9009	821102	2	830117	TES	PPRR/CI			Radiograph-reactor coolant sys.(Thimble Guide Tubes)
9009	821102	3	830117	TES	CR	NO		Radiograph-reactor coolant sys.(Thimble Guide Tubes)
9010	821102	0	821102	SWEC	OIR			Welding procedures-reactor coolant system
9010	821102	1	830112	SWEC	PPRR/CI			Welding procedures-reactor coolant system

APPENDIX A (CONT)

DCNPP IDVP STATUS REPORT

<u>REV.O</u>		<u>LATEST REVISION</u>				<u>ACTION</u>	
<u>FILE NO.</u>	<u>DATE</u>	<u>REV.</u>	<u>DATE</u>	<u>BY</u>	<u>STATUS</u>	<u>MODS</u>	<u>SUBJECT</u>
9010	821102	2	830117	TES	PRR/CI		Welding procedures-reactor coolant system
9010	821102	3	830117	TES	CR	NO	Welding procedures-reactor coolant system
9011	821102	0	821102	SWEC	OIR		NSSS-piping traveler review
9011	821102	1	830112	SWEC	PER/C		NSSS-piping traveler review
9011	821102	2	830117	TES	ER/C		NSSS-piping traveler review
9011	821102	3	830117	TES	CR	NO	NSSS-piping traveler review
9012	821102	0	821102	SWEC	OIR		NSSS-weld procedures
9012	821102	1	830112	SWEC	PER/C		NSSS-weld procedures
9012	821102	2	830117	TES	ER/C		NSSS-weld procedures
9012	821102	3	830117	TES	CR	NO	NSSS-weld procedures
9013	821102	0	821102	SWEC	OIR		Installation of BMI supports
9013	821102	1	830211	SWEC	PER/C		Installation of BMI supports
9013	821102	2	830222	TES	ER/C		Installation of BMI supports
9013	821102	3	830222	TES	CR	NO	Installation of BMI supports
9014	821102	0	821102	SWEC	OIR		Halogen content-reactor cooling piping welding
9014	821102	1	830112	SWEC	PPRR/CI		Halogen content-reactor cooling piping welding
9014	821102	2	830117	TES	PRR/CI		Halogen content-reactor cooling piping welding
9014	821102	3	830117	TES	CR	NO	Halogen content-reactor cooling piping welding
9017	821102	0	821102	SWEC	OIR		Bolt material-reactor coolant system
9017	821102	1	830112	SWEC	PER/CI		Bolt material-reactor coolant system
9017	821102	2	830117	TES	ER/C		Bolt material-reactor coolant system
9017	821102	3	830117	TES	CR	NO	Bolt material-reactor coolant system
9018	821102	0	821102	SWEC	OIR		Welder's qualification
9018	821102	1	830112	SWEC	PER/C		Welder's qualification
9018	821102	2	830117	TES	ER/C		Welder's qualification
9018	821102	3	830117	TES	CR	NO	Welder's qualification
9019	821102	0	821102	SWEC	OIR		Operation description for welds
9019	821102	1	830218	SWEC	PER/C		Operation description for welds
9019	821102	2	830225	TES	ER/C		Operation description for welds
9019	821102	3	830225	TES	CR	NO	Operation description for welds

APPENDIX A (CONT)

DCNPP IDVP STATUS REPORT

<u>REV.O</u>		<u>LATEST REVISION</u>				<u>ACTION</u>	
<u>FILE NO.</u>	<u>DATE</u>	<u>REV.</u>	<u>DATE</u>	<u>BY</u>	<u>STATUS</u>	<u>MODS</u>	<u>SUBJECT</u>
9020	821102	0	821102	SWEC	OIR		Radiographic inspection
9020	821102	1	830112	SWEC	PER/C		report information
9020	821102	2	830117	TES	ER/C		Radiographic inspection
9020	821102	3	830117	TES	CR	NO	report information
9022	821110	0	821110	SWEC	OIR		Radiographic inspection
9022	821110	1	830204	SWEC	PER/C		report information
9022	821110	2	830210	TES	ER/C		Weld procedure-BMI tubing
9022	821110	3	830210	TES	CR	NO	Weld procedure-BMI tubing
9023	821110	0	821110	SWEC	OIR		Weld procedure-BMI tubing
9023	821110	1	830112	SWEC	PER/C		Weld procedure-reactor
9023	821110	2	830117	TES	ER/C		coolant system
9023	821110	3	830117	TES	CR	NO	Weld procedure-reactor
9024	821110	0	821110	SWEC	OIR		coolant system
9024	821110	1	830211	SWEC	PER/C		Weld procedure-reactor
9024	821110	2	830222	TES	ER/C		coolant system
9024	821110	3	830222	TES	CR	NO	Weld procedure-reactor
9025	821110	0	821110	SWEC	OIR		coolant system
9025	821110	1	830204	SWEC	PER/C		Ferrite readings-reactor
9025	821110	2	830211	TES	ER/C		coolant system
9025	821110	3	830211	TES	CR	NO	Ferrite readings-reactor
9026	821110	0	821110	SWEC	OIR		coolant system
9026	821110	1	830211	SWEC	PER/A		Ferrite readings-reactor
9026	821110	2	830222	TES	ER/A		coolant system
9026	821110	3	830225	TES	OIR		Attachments-reactor coolant
9026	821110	4	830308	SWEC	PPRR/CI		system piping

APPENDIX A (CONT)

DCNPP IDVP STATUS REPORT

<u>FILE NO.</u>	<u>REV.0</u> <u>DATE</u>	<u>LATEST REVISION</u>			<u>ACTION</u>		<u>SUBJECT</u>
		<u>REV.</u>	<u>DATE</u>	<u>BY</u>	<u>STATUS</u>	<u>MODS</u>	
9026	821110	5	830309	TES	PRR/CI		Attachments-reactor coolant system piping
9026	821110	6	830309	TES	CR	NO	Attachments-reactor coolant system piping
9027	821110	0	821110	SWEC	OIR		Welds-BMI tubing
9027	821110	1	830112	SWEC	PER/C		Welds-BMI tubing
9027	821110	2	830117	TES	ER/C		Welds-BMI tubing
9027	821110	3	830117	TES	CR	NO	Welds-BMI tubing
9028	821119	0	821119	SWEC	OIR		Weld documentation-BMI supports
9028	821119	1	830112	SWEC	PPRR/CI		Weld documentation-BMI supports
9028	821119	2	830117	TES	PRR/CI		Weld documentation-BMI supports
9028	821119	3	830117	TES	CR	NO	Weld documentation-BMI supports
9029	821119	0	821119	SWEC	OIR		Reactor coolant system-weld deficiencies
9029	821119	1	830218	SWEC	PER/C		Reactor coolant system-weld deficiencies
9029	821119	2	830225	TES	ER/C		Reactor coolant system-weld deficiencies
9029	821119	3	830225	TES	CR	NO	Reactor coolant system-weld deficiencies

APPENDIX B

PROGRAM MANAGER'S ASSESSMENT

Appendix B

PROGRAM MANAGER'S ASSESSMENT

Independent review by TES of the tasks considered to evaluate the Construction Quality Assurance of the work performed by Wismer & Becker on the Installation of NSSS Piping at Diablo Canyon Nuclear Power Plant - Unit I, was performed in accordance with IDVP Program Plan, Revision 1, Adjunct Program for Evaluation of Construction Quality Assurance dated October 1, 1982.

The review involved a visit to the site to comment on the procedures and checklists drafted by SWEC's engineers and an analysis of the recommendations by the Findings Review Committee.

The files issued by SWEC were reviewed thoroughly and specific recommendations were made to the IDVP Program Manager delineating appropriate resolution.

As a result of the verification of the selected samples and the assessment of the impact of SWEC's findings, TES, as Program Manager, is of the opinion that no additional verification is required.