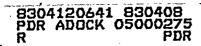
DIABLO CANYON NUCLEAR POWER PLANT
INDEPENDENT DESIGN VERIFICATION PROGRAM
SEMIMONTHLY REPORT
TES - SM - APRIL
APRIL 8, 1983

UNCONTROLLED COPY

PREPARED BY:
TELEDYNE ENGINEERING SERVICES
IDVP PROGRAM MANAGER



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TELEDYNE ENGINEERING SERVICES



APRIL 8, 1983

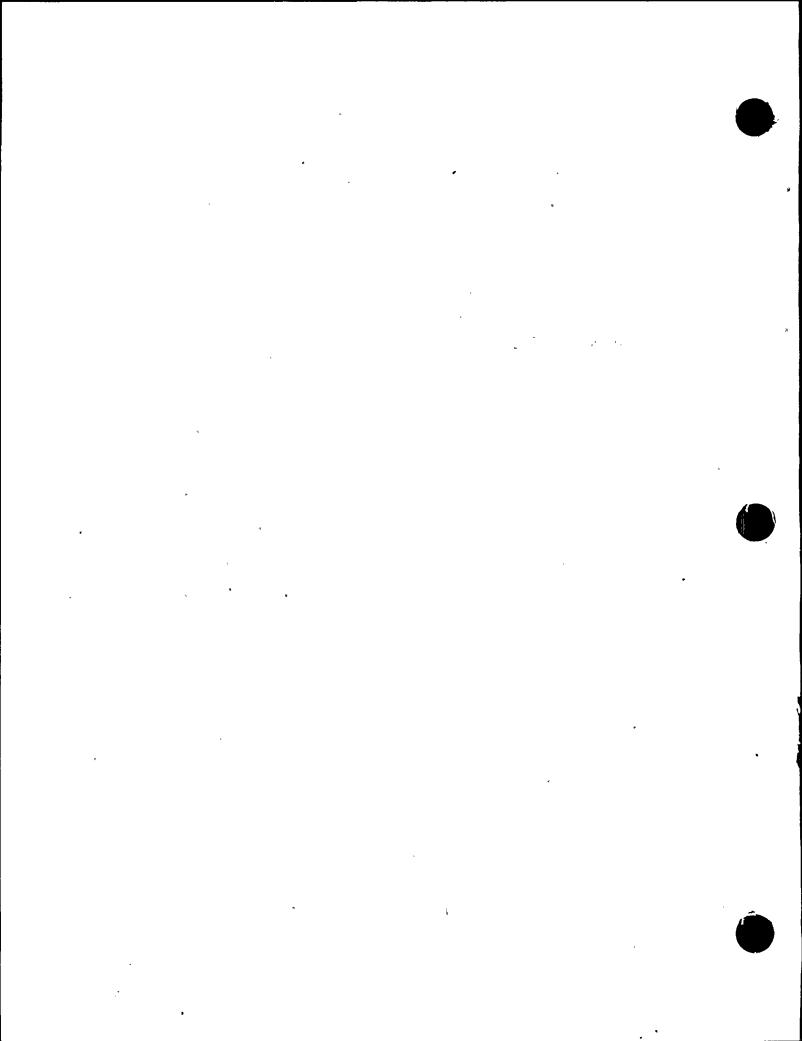
This document includes, in numerical order, all Open Item Report System Forms issued by TES since our Second Friday Semimonthly Report of March 11, 1983.

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 occuring before the next Second Friday Semimonthly Report. These events include:

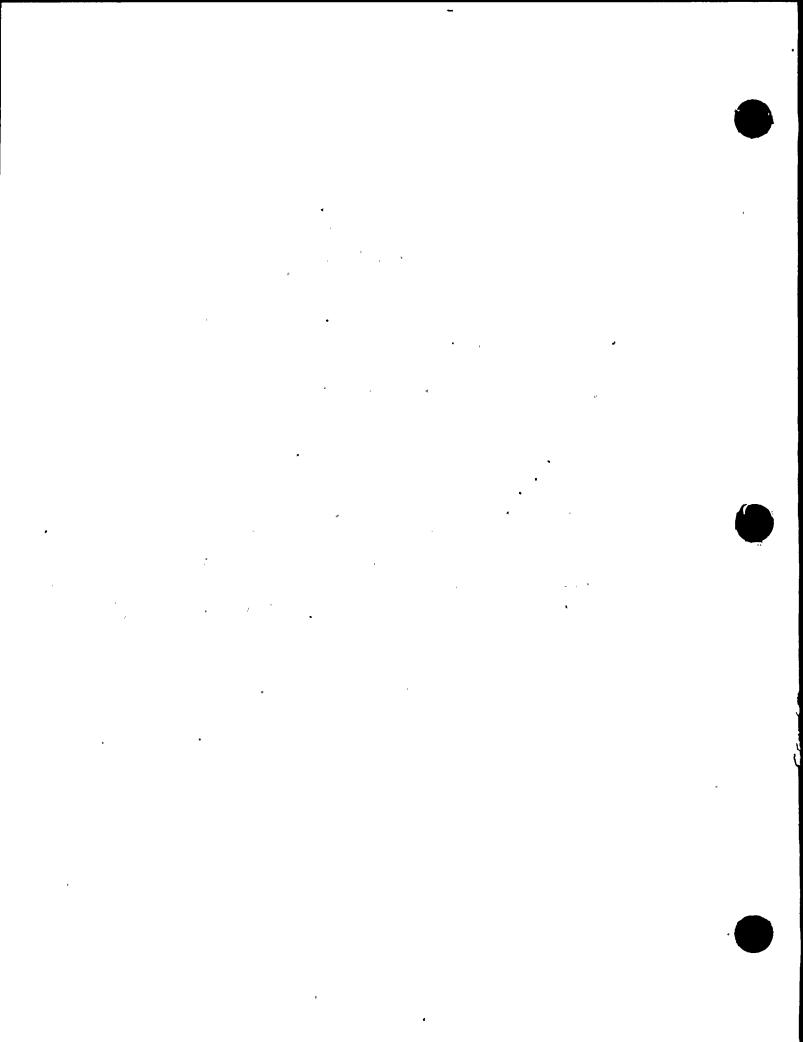
- 1. DCNPP site visits by the IDVP team.
- 2. Anticipated meetings where all IDVP participants and designated interested parties have been or will be notified.
- 3. Significant IDVP events, such as the issuance of an ITR.

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.



•		ERROR REPORT	File No.	1002
		Class: C	File Revision No.	
		A,B,C or D	PG&E Task No.	
 2. 3. 	Program Review Co Reported to PG&E Scheduled for TES Semimon	and Originator othly Report No. Apr	NA NA 830322	
٠.	Structure(s), system(s),	or component(s) invo	ivea:	
HVA	C Components			
4.	Description of Error:	•		
wer In inc	1002, Revision 0: Calcure found to have used incoraddition, the forced drawn correct seismic definition vertical acceleration.	rect and unconservati ft shutter damper qua	ve seismic inputs. alification showed	
5.	Significance of Error:			
cal not	s file dealt with the u culated stresses using cur exceed the allowables. egorized as an Error C.	rrent seismic inputs a	and definitions did	
6.	Recommendation:			
The an	Error B established by R	evision 1 to this fil	e is downgraded to	

7. Potential Error Report signed by <u>E. Denison</u> (RLCA) 830310 Type Name/Organization Signatures: Eee Reproved/Program Manager For Program Review Committee



	File	No.	1002
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.
	X The IDVP has been informed by PG&E that no physical modifications
	will be applied by PG&E.XMXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
	XWXXXXX recategorized this item as ይኣንኢአንፎትX ልX ፟፟፟፟፟፟፟፟፟፟ቖ፟X እጅ እ ልዩ ልዩ a Class
	C XXXXXXXXXXXXX Error. The PG&E document so informing the IDVP XX
	of no modifications is PGandE Completion Sheet (R. R. Fray 7/15/82)

2. Signature: Runglez W. F. Couper 830322

Approved/Program Manager

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				EDD.	N. DEDART		es es	<u>'</u>		4
					OR REPORT		F21. (1088
	•		•	Clas	s: <u>C</u> A,B,C or	r D				
			•		,	_	Ρ(G&E Task	No.	
1.	Date		orted_to_P	rogram Re	view Commi	ttee _	NA			
		Pon	gram Revie orted to P	w Committ	ee Action	-	NA			
2.	Sche	duled fo	or ted to r or TES Sem	imonthly	Report No.	-	8304	07		
3.	Stru	cture(s)), system(s), or co	mponent(s)	involv	ved:	,		
	Com	ponent	Cooling Wa	iter Heat	Exchanger	(CCW H	X)			
4.	Desc	ription	of Error:						*	
	The 15%.	IDVP re	esults din ollowing w	ffer from ere obser	those in ved in the	the de	esign a n analy:	nalysis sis.	by m	ore than
	a.	The as	s-built s c loads.	upport co	onfiguratio	n was	not u	sed to	gener	ate the
	b.	End mo	ments on uts.	the pipe	strut were	not c	consider	ed in th	ie ev	aluation
	c.	Nozzle suppor	loads w t structur	ere not e and she	included i ll.	in the	evalua	ation of	the	e entire
	d.	The ex	xpansion a ditional u	nchor bol plift due	ts were no to the pi	ot eva pe stri	luated ut end n	for she	ar lo	oads and
	e.	The no	ezzle to s d of the n	shell jund ozzle to	ction anal the nozzle	ysis d -shell	lid not interfa	transfe	108	ads from
	f.•	Seismie algebra	c nozzle aically su	loads mmed.	were cor	sidere	ed as	signed	108	ıds and
	g.	attach	fect of ed piping nsidered.	additiona during he	l load pro eat exchang	oduced ger se	by the	e constr nertial	aint mover	of the ment was
		Of the Class (items li C Error.	sted abov	e, only (a	ı), (c)), (e),	(f) and	(g)	lead to
5.	Sign	ificance	e of Error	:						
	Inde	pendent	ana _l lysis	shows all	loads and	stress	ses to l	be below	a110	wables.
5	Reco	mmendat	ion:							
	Erro	r Class	C.					,		1
						¥				
7.	Potor	ntial C.	man Dana-	h mataur b f						
•	, ocei	iciai Er	ior kepori	v signed t	Dy <u>E.Deniso</u>	on/RLCA	<u>ganizat</u>	on .		30325
8.	Signa	atures:		NA				_		ite <u>u. <i>8304</i>/</u>
			For Progr	am Review	Committee	- 24	Approv	d Prograi	n Mar	lager

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OPEN	ITEM	REPORT	
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F	i 1	е	No.	ı	1103

RLCA

File Revision No.

-	-	_
	_	
	•	
	•	
	1	

1. Date reported to PG&E and XXX 830406

2. Scheduled for TES (Originator) Semimonthly Report No. Apri

3. Responsive to PG&E Technical Program: Task _____ (if applicable)

4. Prepared as a result of:

a. 🗆 QA Audit and Review Report of _____

b. D Field Inspection Deficiency

c.

Independent Calculation Deficiency

d. □ Seismic Input Deficiency

e. ☐ Design Methodology Deficiency

f. DI Other XDeXXXXXXXXX DCP Completion Sheet dated 830314

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

Pipe Supports.

6. Description of Concern:

Pipe supports 18/1SL, 18/4R, 10/2SL, 10/1SL and 5/10R are attached to rupture restraints, steel plate, and building structural steel. Concern is that local pipe supports are addressed in the qualification of the supporting steel.

PGandE considers all supplementary steel between the piping and the building structure for the 20 Hz. criteria. Rupture restraints are considered rigid in the rupture restraint line of action.

File revision 5 was issued for purpose of requesting DCP procedure for evaluating support flexibility transverse to rupture restraint's principle axis.

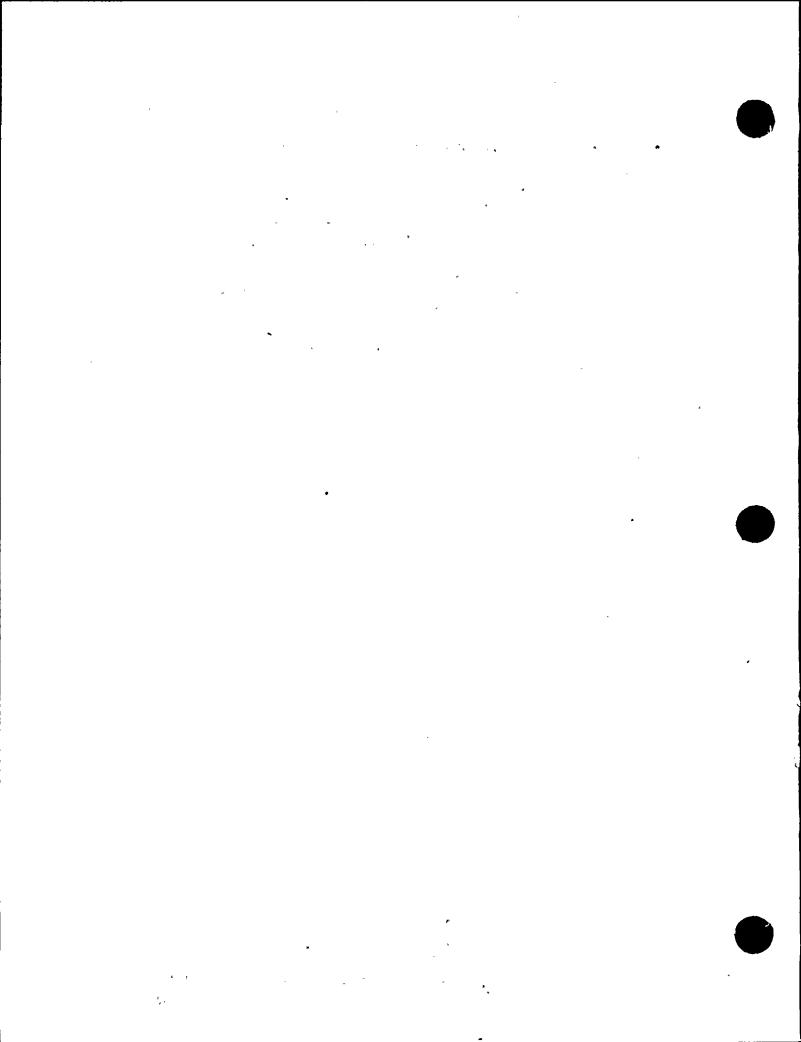
7. Significance of Concern:

8. Recommendation:

RLCA to review DCP's résponse in Completion Sheet dated 830314 and recommend a Potential Program Resolution.

9. Signature: 2/2 Con

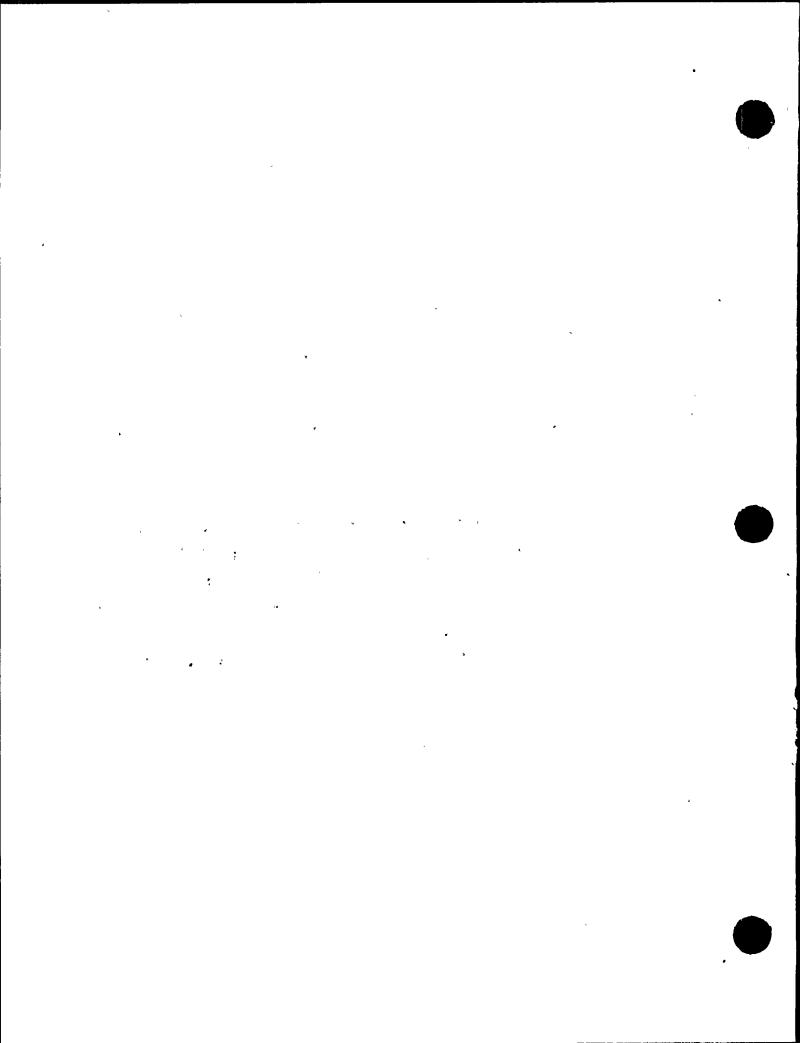
830406 (Originator/Organization)



	PROGRAM RESOLUTION REPORT
	File No. 1107 File Revision No. 5
3. 4.	Resolution of an: W Open Item: Class Error Independent Design Verification Program Resolution is as: a. Closed Item b. Deviation c. W Open Item with future action by PG&E: Task Date Reported to PG&E 830314 Scheduled for TES Semimonthly Report No. April Resolution based on the following documentation:
	RLCA has reviewed the revised DCP analysis 7-103, Revision 0. This analysis includes two valves on line 3488 vent lines and an SIF of 2.1 for socket welded connections. The two deadweight supports on line 4259 were not modeled as rigid vertical supports.
	All concerns noted as a result of RLCA Piping Sample 110 have been addressed by the revised DCP analysis.
	•
	•
6.	Program Resolution is:
	Open Item with future action by PG&E.
	RLCA will verify modifications following installation.
	•
	•
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	¢.
7.	Potential Program Resolution Report signed byEdward Denison/RLCA on 830311
8.	Signature: Type Name/Organization 3/4 Date (Approved/Program Manager)
	-5-

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	PROGRAM RESOLUTION REPORT File No. 1108
	File Revision No. 6
1. 2.	Resolution of an: W Open Item: Class Error Independent Design Verification Program Resolution is as: a. & Closed Item b. Deviation c. Dopen Item with future action by PG&E: Task Date Reported to PG&E 830317 Scheduled for TES Semimonthly Report No. April Resolution based on the following documentation:
	RLCA Piping Sample 110 (Additional 5 lines) Design Analysis 7-1, Revision 5.
	The design analysis (pre $11/30/81$) does not consider movements at the attachment of the RTD lines to the Reactor Coolant System.
	The PG&E Phase I Final Report commits to inclusion of DE movements in piping stress analysis and DE, DDE and Hosgri movements in support loads.
	•
6.	Program Resolution is:
	The licensing criteria does not require inclusion of reactor coolant system movements for the analysis of small bore piping.
	The PG&E Phase I Final Report commitment will be reviewed by the IDVP in their review of DCP Corrective Action.
7.	Potential Program Resolution Report signed byEdward Denison/RLCA on830314 Type Name/Organization
8.	Signature: Date (Approved/Program Manager)



	File	No.	1108
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 writer completes the 100 Ferror C 15:						
	X	File Revision No. $\underline{6}$ 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: Lunghe W.C. Lunghe 1830317
Approved/Program Manager

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File	No.	1110
File Revision	No.	6

IDVP COMPLETION REPORT

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

l.	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 File Rev. 5 recatagorized this item as a Class C Error. @XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
2.	Signature: 25 Comp. 830318

• • •

	File	No.	1114
File	Revision	No.	3

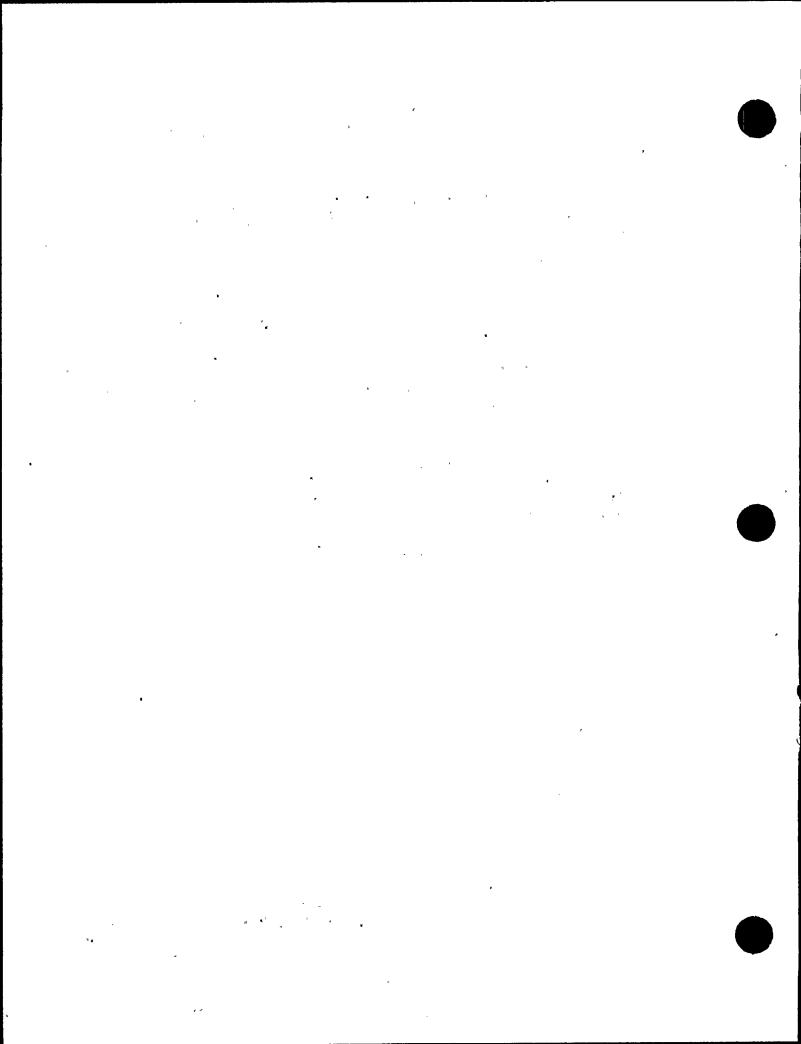
IDVP COMPLETION REPORT

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 ጵጳጳጳጳጳጳጳጳጳጳጳጳጳጳጳጳጳጳጳጳጳጳጳጳጳጳጳጳጳጳጳጳጳጳጳ
	DCP Completion Sheet, IDVP File No. 1114, R. R. Fray 830310 .

2. Signature: When for W. F. Comput. 830314

***Rpproved/Program Manager



ERROR REPORT	File No. <u>1117</u>
Class:C	File Revision No. 2
A,B,C or D	PG&E Task No.
Dates: Reported to Program Review Committee	eN/A
Program Review Committee Action	830325
Reported to PG&E and Originator	830325
Scheduled for TES Semimonthly Report No. A Structure(s), system(s), or component(s) in	April , volved:

Instrumentation Power AC Panel Boards

4. Description of Error:

1.

2.

The dynamic model of the panel in the design analysis is a simply supported beam with two equal concentrated masses symmetrically placed. However, the natural frequency calculation utilizes unconservative static deflections at the concentrated mass force locations. The deflection used at each location represents only the contribution produced by the mass force at that location and does not account for the contribution of the other mass. As a result, the calculated natural frequency is incorrect for the dynamic model considered.

The above error description was revised from File Revision 1 by Program Review Committee action on March 25, 1983 to help clarify the nature of the error.

5. Significance of Error:

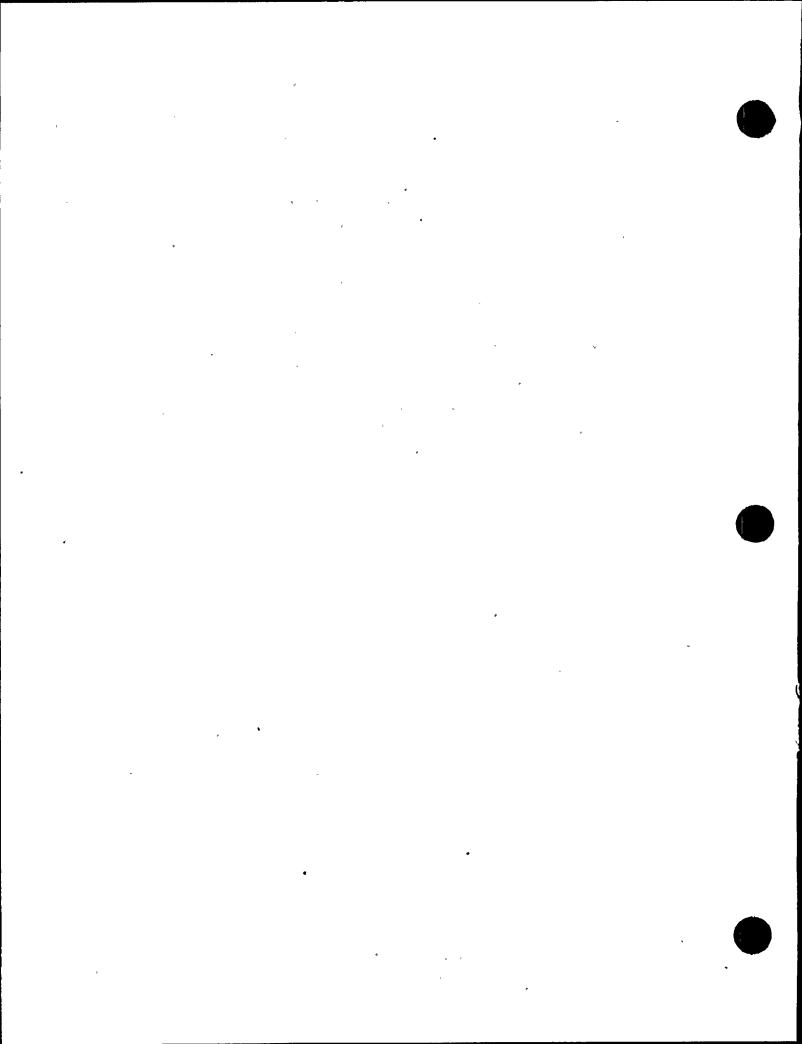
Panel natural frequency calculated by IDVP using the correct formulation is greater than 33 Hertz.

6. Recommendation:

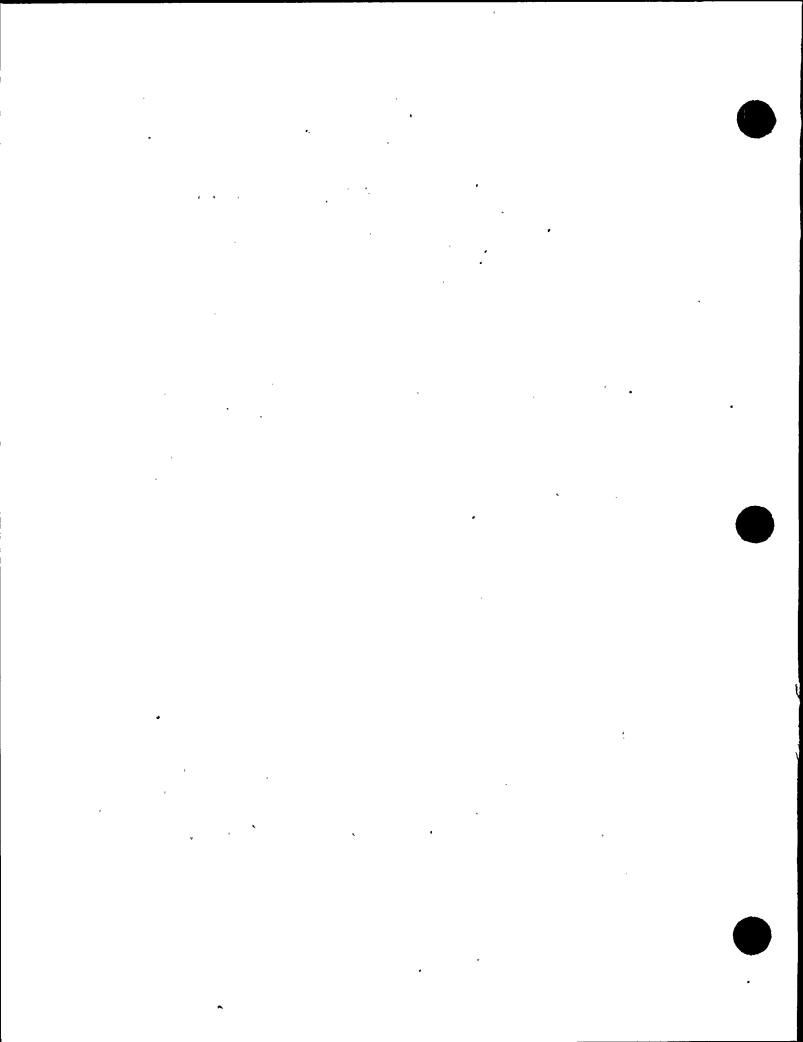
Error Class C.

7. Potential Error Report signed by Edward Denison/RLCA on 830316

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



PROGRAM RESOLUTION REPORT File No. 111	Ω
File No. 111 File Revision No. 2	
1. Resolution of an: 12 Open Item:	
3. Date Reported to PG&E 830323 4. Scheduled for TES Semimonthly Report No. April 5. Resolution based on the following documentation:	
Electrical Equipment Qualified by Shake Table Testing (Mountings) Phase I Initial Sample (prior to 811130): 480 Volt Vital Load Center.	
The above report notes the 480 Volt Vital Load Center attachment to the wall and floor at elevation 100 feet. Field verification shows the actual attachment to the ceiling at elevation 115 feet.	1
The ceiling attachment at elevation 115 feet may impose higher seismic response than were considered in the test.	
•	
6. Program Resolution is:	
PGandE to evaluate situation and recommend resolution.	
•	
•	
7. Potential Program Resolution Report signed by <u>E. Denison</u> (RLCA) on 830319	
8. Signature: Type Name/Organization Date 830323 (Approved/Program Manage	er)



i	16	3	No	٠	1118
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RLCA

File Revision No. 3

1. Date reported to PG&E and XXXX 830407

2. Scheduled for (Originator) Semimonthly Report No. Apri

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. D Independent Calculation Deficiency

d. □ Seismic Input Deficiency

e. Design Methodology Deficiency

f. ♥ Other Destisiency DCP Completion Sheet dated 4/6/83 .

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

Electrical Equipment Qualified by Shake Table Testing (mountings) Phase I Initial Sample (prior to 11/30/81): 480 Volt Vital Load Center

6. Description of Concern:

The Shake Table Testing Report notes the 480 Volt Vital Load Center attachment to only the wall and floor at elevation 100 feet. Field verification shows attachment to the ceiling at elevation 115 feet.

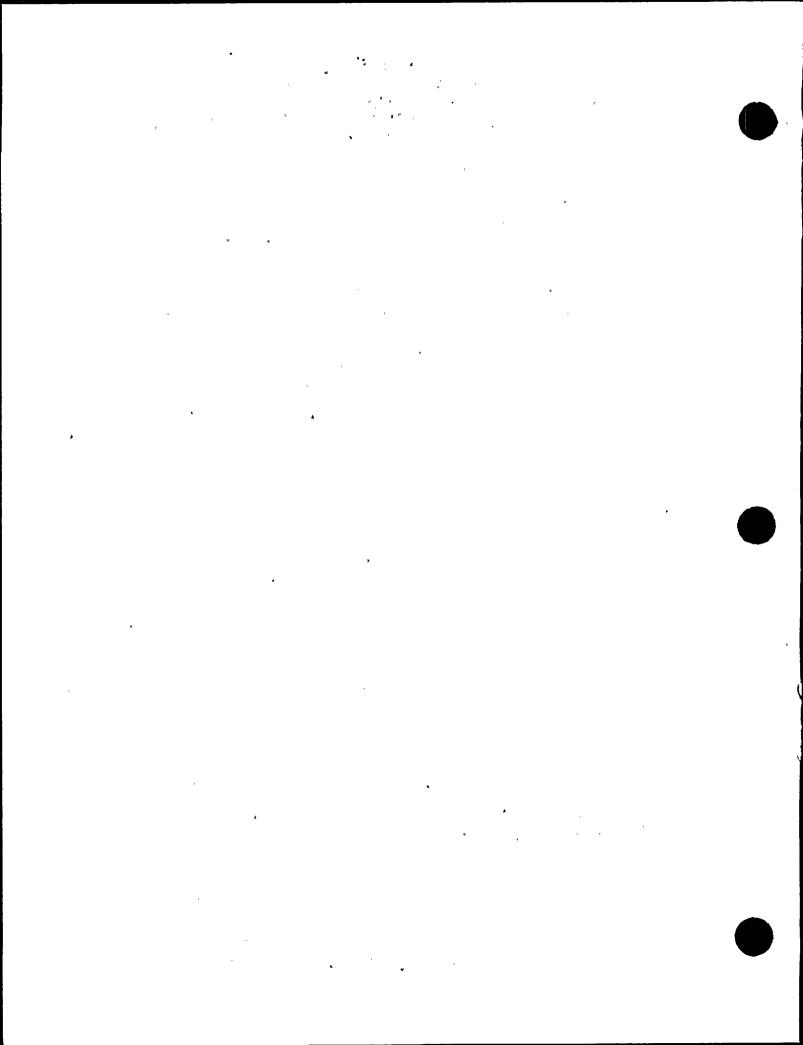
7. Significance of Concern:

The ceiling attachment at elevation 115 feet may impose higher seismic responses in the EW direction than were considered in the test.

8. Recommendation:

RLCA to evaluate response in DCP Completion Sheet dated 4/6/83 and decide whether file can be resolved.

9. Signature: [Clusay for W. 6. Coupes (Originator/Organization)



	ERROR REPORT	File No.	1119
	Class: C	File Revision No.	2
	A,B,C or D	PG&E Task No.	
1.	Dates: Reported to Program Review Committee	NA	
	Program Review Committee Action	NA	
2.	Reported to PG&E and Originator	830323	
	Scheduled for TES Semimonthly Report No. Apri Structure(s), system(s), or component(s) invol	ved:	
	octrical Equipment Qualified by Shake Table To		

Electrical Equipment Qualified by Shake Table Testing (Mountings) Phase I Initial Sample (prior to 811130): DC Distribution Panel.

4. Description of Error:

The Hosgri Report Section 10.2.3 cites IEEE 344-1975 as the seismic testing criteria. IEEE 344-1975 Section 6.1.1 states "...The method of mounting the equipment to the shake table shall be documented and shall include a description of any interposing fixtures and connection. The effect of such fixtures and connections must be evaluated if they are only used during qualification and not for inservice mounting". For the DC Distribution Panel, the qualification mounting connections differed from the in-service mounting connections. In addition, the description of qualification mounting connections is not adequate to evaluate this difference on a comparison basis.

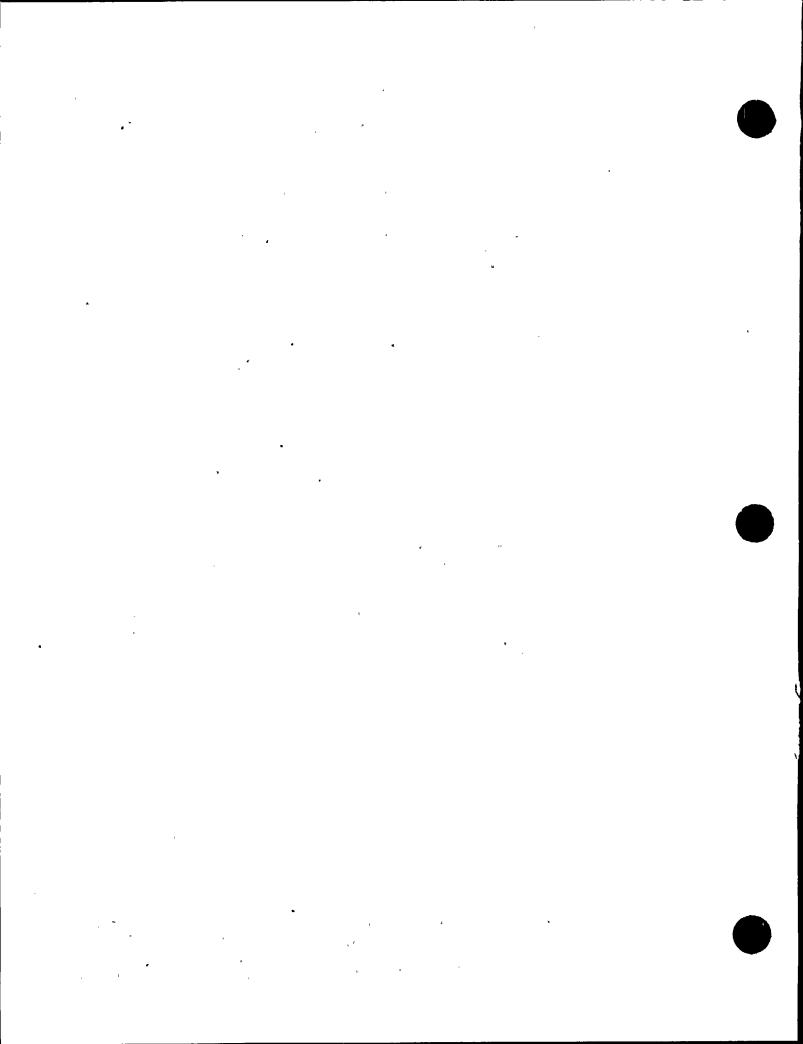
5. Significance of Error:

The DCP, in response to IDVP questions, has evaluated these differences by analyzing the in-service mounting connections and found these to meet the allowables.

6. Recommendation:

Since the original test did not adequately document the qualification mounting, the conservatism of the qualification mounting with respect to the in-service mounting can not be demonstrated. Additional DCP calculations have shown the in-service mounting to meet the allowables. Therefore, this is an Error Class C.

7.	Potential Er	ror Report signed by		(RLCA)	on	830319
8.	Signatures:	NA For Program Pourious		Organization Approved/Pro		Date 830323
		For Program Review C	ommittee	Approved/Pro	gram	Manager



	ERROR REPORT	File No.	1120
	Class: B	File Revision No.	2
	A,B,C or D	PG&E Task No.	
1.	Dates: Reported to Program Review Committee	NA ·	
	Program Review Committee Action	NA	
2.	Reported to PG&E and Originator	· 830405	
3.	Scheduled for TES Semimonthly Report No. Apri Structure(s), system(s), or component(s) invol	ved:	
	HVAC Components - Condensers CR-35.	•	

4. Description of Error:

Design Analysis of these components (Project Package HV - 4.1) shows that the 3/4 inch exterior housing mounting bolts used in an earlier EDS Calculation (0170011-100.6) were accepted as correct in the Phase I DCP Corrective Action Program. IDVP field verification shows these bolts to be 1/2 inch.

5. Significance of Error:

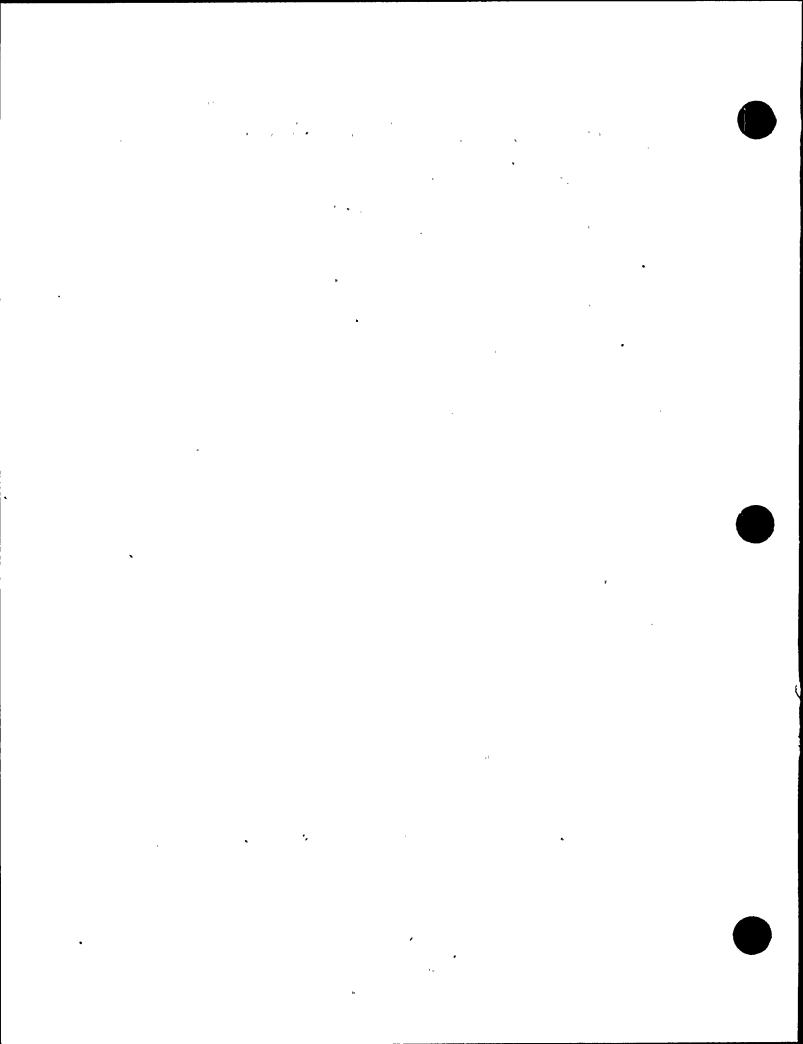
The IDVP has factored the bolt stress in the Design Analysis by the difference in the bolt size (3/4 inch vs. 1/2 inch.) Resultant bolt stress exceeds the allowable.

However, The DCP has revised the Design Analysis as a result of IDVP field verification and is now able to show bolt stresses to be below the allowable.

6. Recommendation:

Error B

7.	Potential Error Report signed by Edward Denison/RLCA	on	830322
8.	Signatures: Type Name/Organization For Program Review Committee Approved/Pr	· - &7	Date
	For Program Review Committee Approved/Pr	ogram	Manager



		•		
		OPEN ITEM REPORT	File No.	8012
1.	Date reported to PG&E and		File Revision No.	
2.	Responsive to PG&E Technic		emimonthly Report N if appl (if appl	
4.	Prepared as a result of: a. □ QA Audit and Review			
	b. D Field Inspection Det c. D Independent Calculation	tion Deficiency		
	d. ☐ Seismic Input Defice. ☐ Design Methodology			
5.	f. □ Other Deficiency Structure(s), system(s) on	component(s) inv	olved:	
C	lass 1 Pórtions of the CRV	Systems.		
6.	Description of Concern:		• .	
Re	efer to EOI 8012, Revision	0.		
			•	
	•		•	
7.	Significance of Concern:			
Re	efer to EOI 8012, Revision	0.		

8. Recommendation:

SWEC to review DCP response, IDVP File No. 8012, signed 830308 for future disposition.

9. Signature:

830311

(Originator/Organization)

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										801 <i>2</i>
				ERROR I		c	ile Rev			8012
				Class:	$\frac{A}{A,B,C}$ or			Task		
•								· rusiv	110•	
1.	Dates:		to Progra Review Cor			tee	NA NA			
		Reported	to PG&E a	and Orig	inator		83031	5		
2. 3.	Schedule Structur	ed for TE re(s), sy	S Semimoni stem(s),	thly Rep or compo	ort No. onent(s)	April involved	ı : ,			
Cla	ss I Por	tions of	the CRVP	System.						
4.	Descrip	tion of E	rror:	•						
Ref	er to EC	OI File 8	012, Revis	sions 3	and 6.					
										4.
5.	Signifi	cance of	Error:							
										•
Re	fer to E	OI 8012,	Revisions	3 and	6.					
			4		,					
							•			
6	Dooomo	endation:								
0.	Reconne	siluat 10ii :								
Th	ne DCP	proposed	resoluti	on is	acceptal	ole for	this	file.		
Ve	erificati	ion of th	e required	d modifi	cations	is requi	red.			
							jê.			
7.	Potent	ial Error	Report s	igned by	John K	rechting	(SWE) 0	n8	330311

NA

For Program Review Committee

-15-

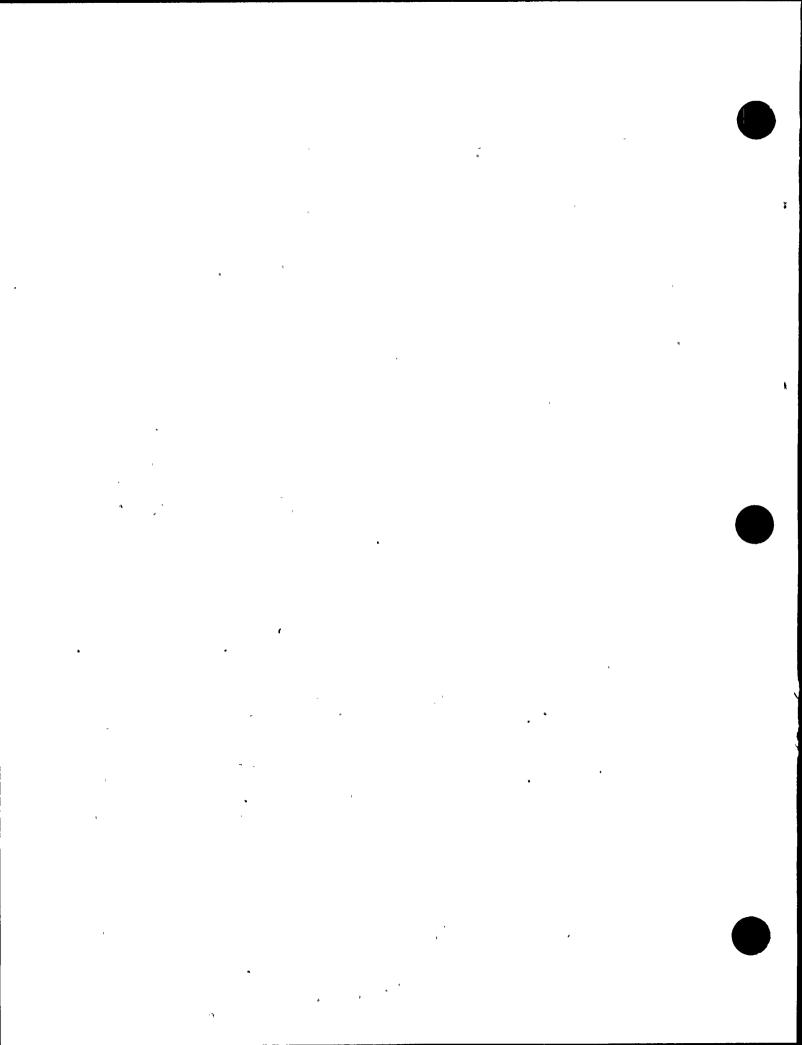
Signatures:

Date 830315

Approved/Program Manager

Type Name / grantzation

()



PROGRAM RESOLUTION REPORT

	File	No.	8013	
File	Revision	No.	9	

1.	Resolution	of an	: Ø	0pen	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 _____

Date Reported to PG&E 830311

Scheduled for TES Semimonthly Report No. April

5. Resolution based on the following documentation:

- (a) DCP Resolution Package, IDVP File No. 8013, signed 12/14/82, transmitted via DCVP-SWEC-270.
- (b) Supplementary information (Manufacturer's Test Report, 77 pages) transmitted via DCVP-SWEC-306.
- (c) PGandE Completion Package, File No. 8013, Revision 6, signed 2/8/83 transmitted via DCVP-SWEC-321.
- (d) PGandE Supplement to Completion Package, signed 3/2/83 transmitted via DCVP-SWEC-368.
- (e) Manufacturer's test summary dated January 29, 1972, DCVP-SWEC-89.
- (f) PGandE Test Procedure 21.1, signed July 24, 1981, DCVP-SWEC-44.

6. Program Resolution is:

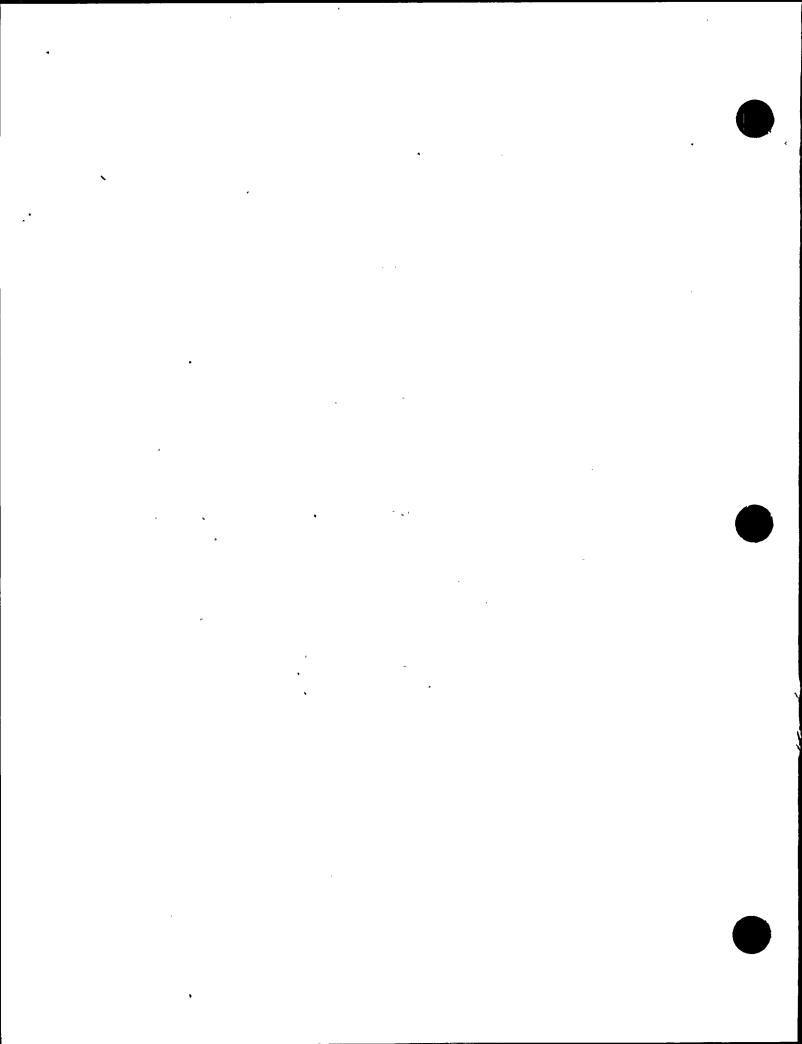
The Diesel Generators are acceptable based on the following:

The Diesel Generator manufacturer's test summary and the PGandE Test Procedure 21.1 together with additional test data and calculations provided by PGandE demonstrate the capability of the Diesel Generators to start and accelerate the required safety-related loads in the design sequence.

This file is downgraded from an ER/AB to a Deviation to more accurately reflect the significance of concern. The basis for the downgrading is that adequate performance of the Diesel Generators have been provided by test data and calculations.

This file will be closed since no modifications are required.

7. Potential Program Resolution Report signed by John Krechting (SWEC) on 830309 Mype Name/Organization 830311 (Approved/Program Manager)



	File	No.	8013
File	Revision	No.	10

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.
•	Х	The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. 9, which recategorized this item as XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
		DCP Completion Sheet, IDVP File 8013, signed 830302

Approved/Program Manager

2. Signature:

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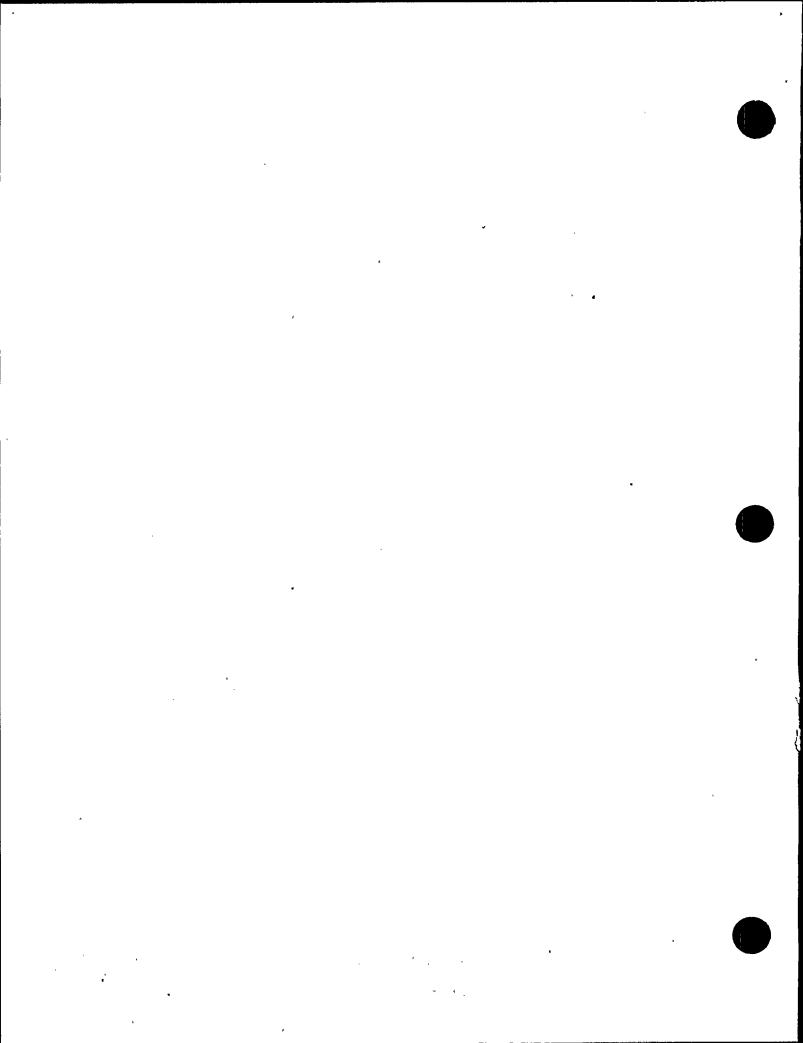
File	No.	8014
File Revision	No.	10

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

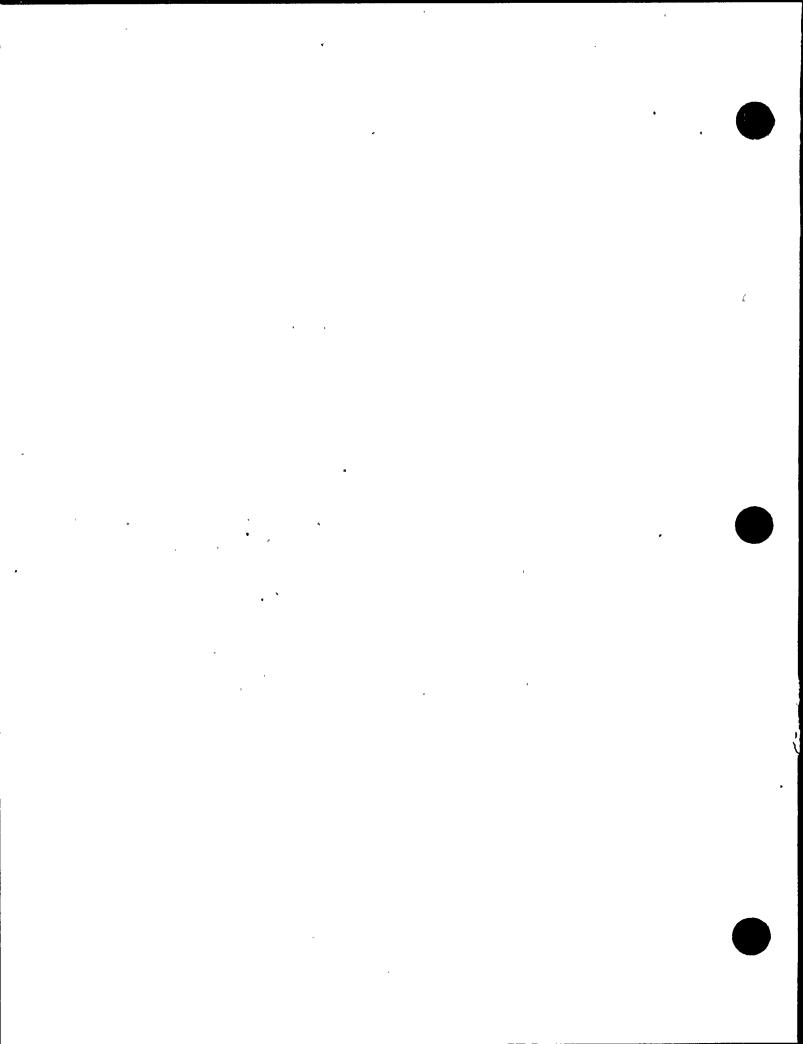
1.	The action which completes the IDVP effort is:
	File Revision No is a Program Resolution Report which recategorized this item as a Closed Item.
•	The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No. 9, which recategorized this item as eXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
2.	Signature: WECourer 830406
	Approved /Program Manager

.

	PROGRAM RESOLUTION REPORT
	File No. <u>8016</u>
	File Revision No. 7
1. 2. 3. 4.	Independent Design Verification Program Resolution is as: a. C. Closed Item b. D Deviation c. D Open Item with future action by PG&E: Task Date Reported to PG&E 920229
5.	Resolution based on the following documentation:
	DCP Completion Sheet, IDVP File 8016 signed 830210 E0I File 8012 E0I File 8016 - Revision 6, PER/B was considered by the Program Review Committee and the following resolution agreed to:
6.	Program Resolution is:
	This file is downgraded from an ER/A to a Closed Item for the following reasons:
	a. The concern of the CRVP System electrical power supply not satisfying the single failure criteria is corrected by the modifications being performed under EOI File 8012. These modifications will ensure adequate electrical redundancy for the CRVP System with or without Unit 2 licensed. This concern is transferred to EOI File 8012 and will be addressed in its resolution.
,	b. The concern that power may not be available for the safe shutdown of the non-LOCA Unit (either Unit 1 or 2) is an issue after Unit 2 is licensed. However, since Unit 1 is affected by the subsequent licensing of Unit 2, this concern will be identified in the IDVP Final Report as an unresolved item for further consideration.
	c. The preparation of emergency procedures for the purpose of effecting safe shutdown of the non-LOCA unit was not a commitment of the original licensing document.
	The basis for this downgrading is that the power supply inadequacy is resolved by modifications being performed in the resolution of EOI File 8012 and the safe shutdown concern will be addressed in the IDVP Final Report. No DCP action is required.
	;
7.	Potential Program Resolution Report signed by
8.	Signature: Type Name/Organization Date 830328 (Approved/Program Manager)



PROGRAM RESOLUTION REPORT
File No. <u>8016</u>
File Revision No. 8
1. Resolution of an: 以 Open Item: □ Class Error. 2. Independent Design Verification Program Resolution is as: a. 以 Closed Item b. □ Deviation
 c. □ Open Item with future action by PG&E: Task 3. Date Reported to PG&E 830328 4. Scheduled for TES Semimonthly Report No. April 5. Resolution based on the following documentation:
EOI File Revision 7
•
•
6. Program Resolution is:
This file was downgraded from an ER/A to a Closed Item because the concerns identified by earlier revisions are resolved by modifications being performed in EOI 8012 and by including other concerns as part of the IDVP Final Report.
•
;
7. Potential Program Resolution
Report signed by J. Krechting/SWFC on 830310 Type Name/Organization Date
830328 (Approved/Program Manager)
-20-



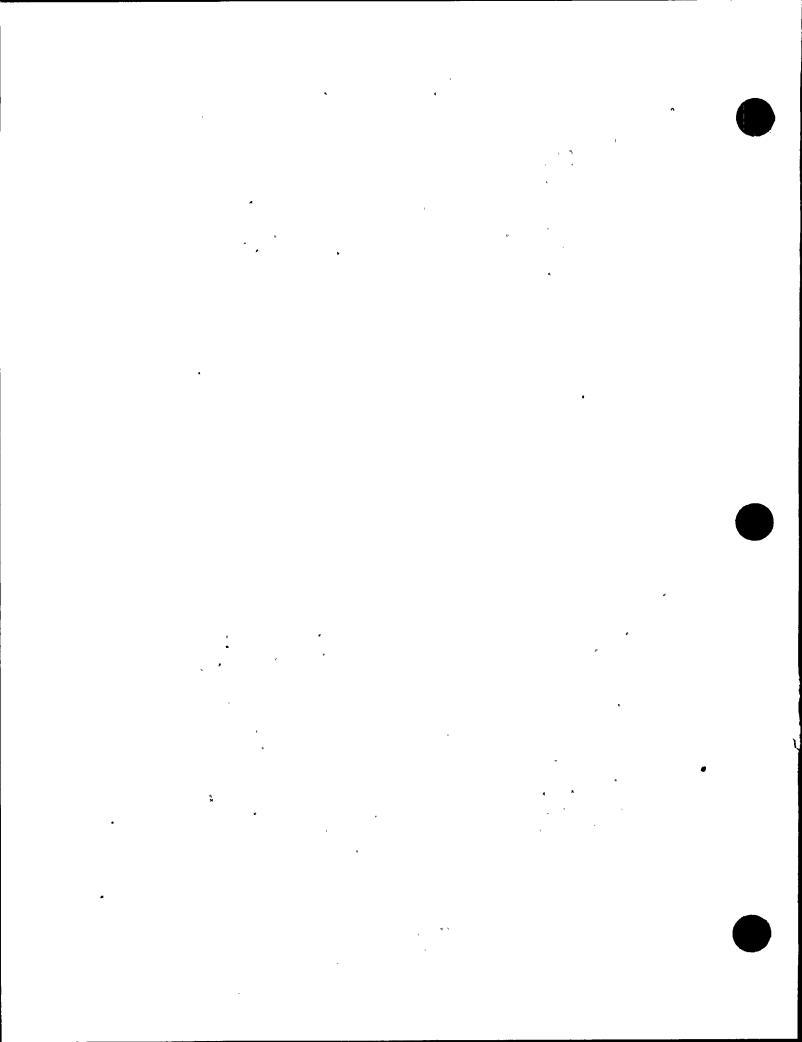
	File	No.	8016
File	Revision	No.	9

1

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

1.	1. The action which completes the IDVP effor	rt is:
	X File Revision No. 8 is a Progrecategorized this item as a Closed	
	The IDVP has been informed by PG&E the will be applied by PG&E in response which recategorized this item as eit C or Class D Error. The PG&E docum	to File Revision No, her a Deviation or as a Class
2.	2. Signature: 200 Communication	830328

Approved/Program Manager



PROGRAM RESOLUTION REPORT

0020

	File No	0020
	File Revision No.	5
	Resolution of an: Ø Open Item: D Class Error	
2.	Independent Design Verification Program Resolution is as:	
	a. 🗆 Closed Item b. 🖾 Deviation	
	c. D Open Item with future action by PG&E: Task	
3.	Date Reported to PG&E 830323	
	Scheduled for TES Semimonthly Report No. April	
5.	Resolution based on the following documentation:	

DCP Completion Sheet, IDVP File No. 8020, signed 830307.

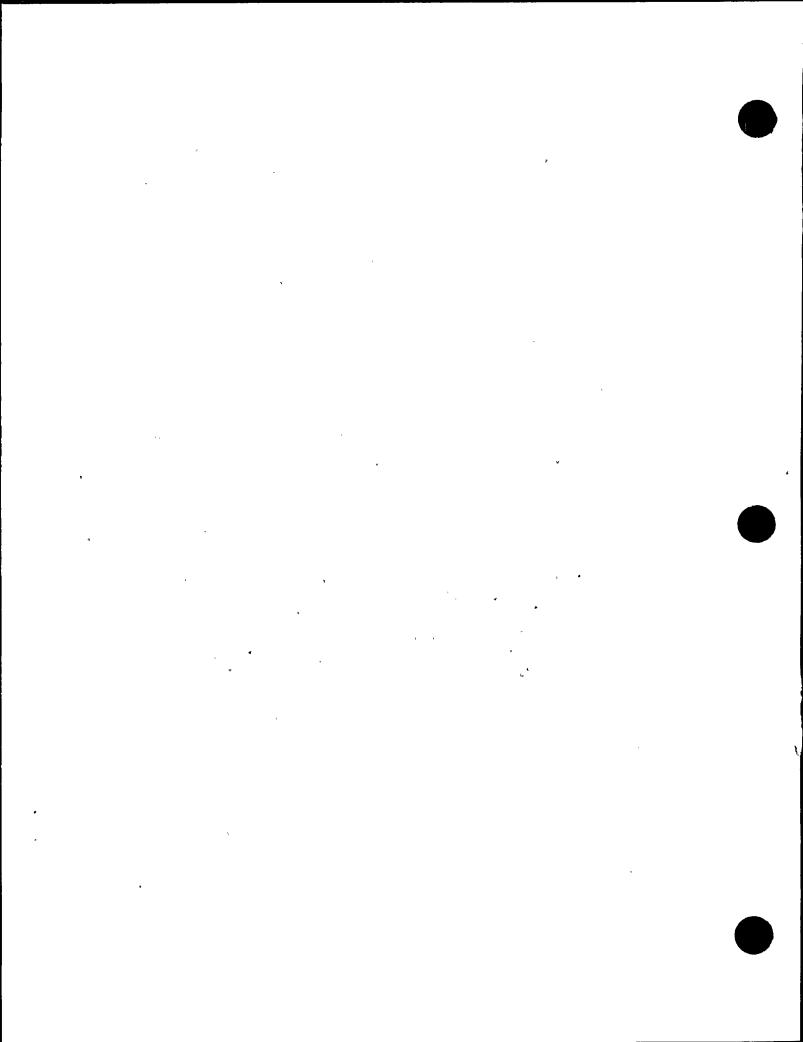
6. Program Resolution is:

Acceptable, since the DCP analysis demonstrates that for fires outside the Control Room envelope, the CRVP System can continue to operate to maintain Control Room habitability so as to accommodate a safe shutdown.

This file is classified as a Deviation, since the Supplementary Information for Fire Protection Review (SIFPR) did not include an evaluation of all CRVP system components required to maintain Control Room habitability during the safe shutdown of the reactor. This omission from the SIFPR represents a departure from standard procedure, but no physical modifications are required under this EOI because modifications to the CRVP system to be made under EOI 8012 will consider adequate separation of required circuits for fire protection.

This file will be closed after a field verification of the CRVP circuit routings.

7.	Potential Program Resolution Report signed byJohn Krechting		on	830315
8.	Signature: ZVE Rame/Org	anization 830323(Approved	– Progr/	Date am Manager)



	File	No.	8020
File	Revision	No.	6

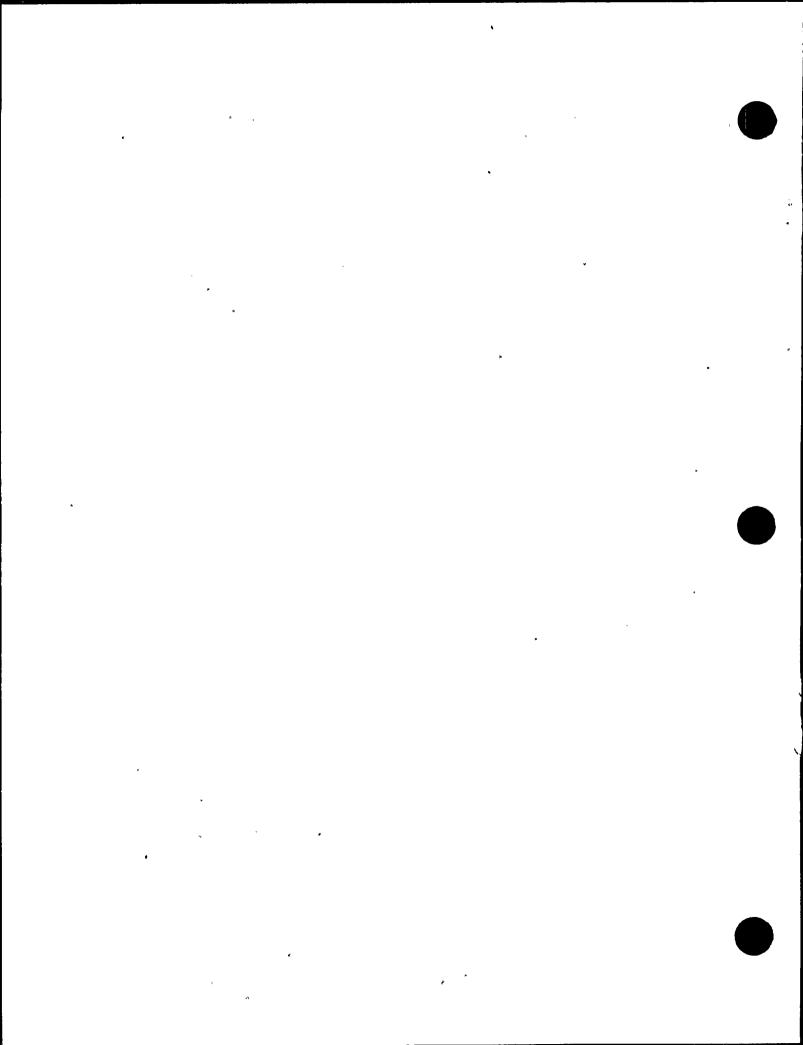
The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

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.
,	X	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 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

2. Signature:

Approved/Program Manager

IN.E. COOPER 830407

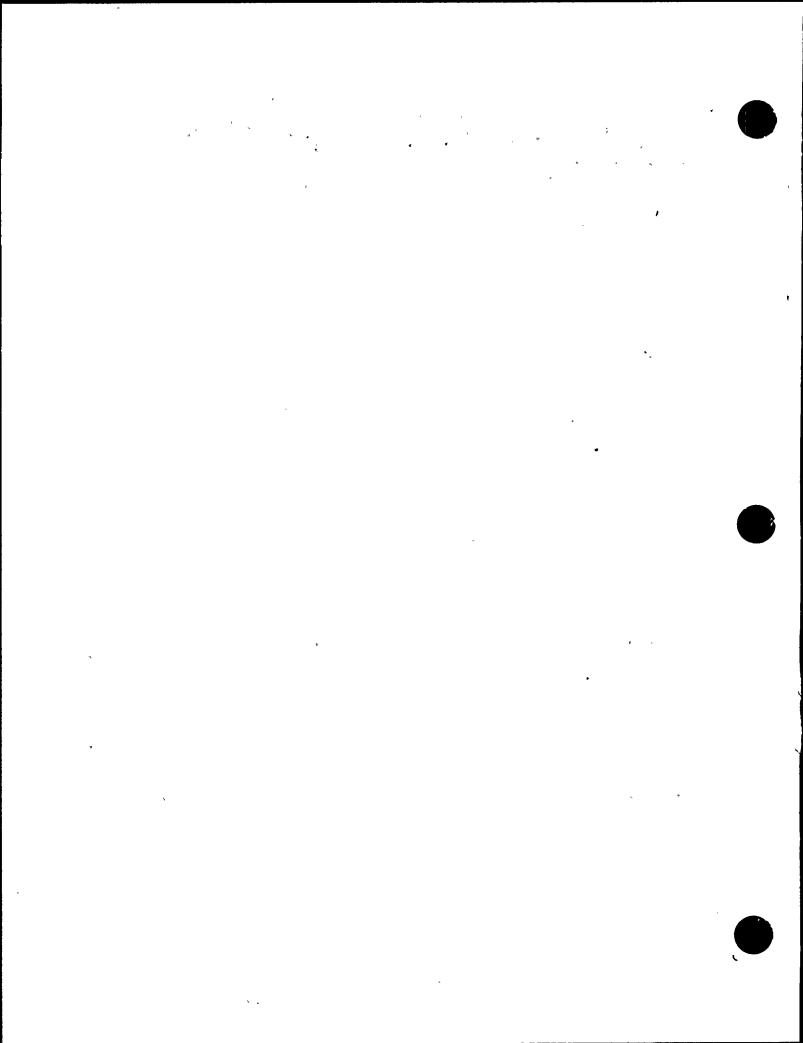


	•	OPEN ITEM REPORT	File	No.	8021
1	Data managed to Door and	SWEC	File Revision	No.	4
1. 2. 3.	Date reported to PG&E and Scheduled for TES Responsive to PG&E Technic	REX <u>830316</u> (Originator) Scal Program: Task	emimonthly Rep	ort No appli	April
4.	a. □ QA Audit and Review b. □ Field Inspection Def c. □ Independent Calculat d. □ Seismic Input Defici e. XX Design Methodology [Report of iciency ion Deficiency ency Deficiency			,
5.	f. □ Other Deficiency Structure(s), system(s) or	component(s) inv	olved:		
AF	W Fire Protection.				
6.	Description of Concern:				
Re	efer to EOI 8021, Revision	0.	•	¥	
•					•
7.	Significance of Concern:				
Re	efer to EOI 8021, Revision	0.			

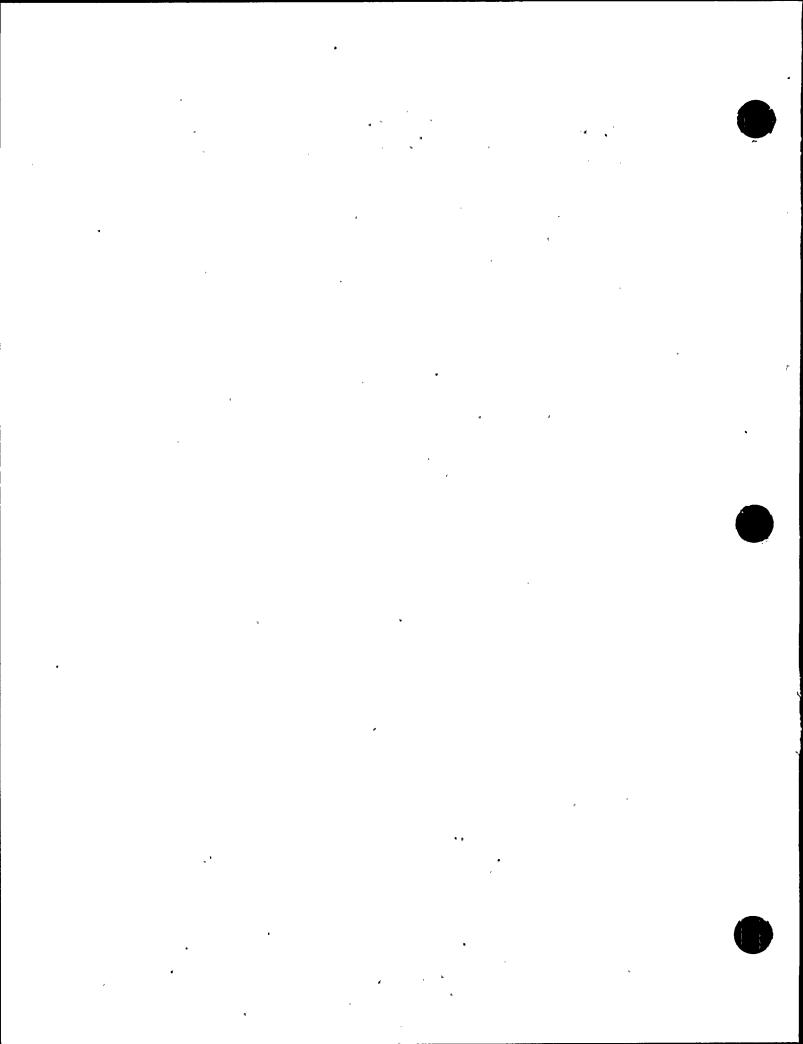
8. Recommendation:

SWEC to review DCP response, IDVP File No. 8021, signed 830202 for future disposition.

WE Gage 830316 (Originator/Organization)



	OPEN.ITEM REPORT	File No.	8021
 Date reported to PG&E and Scheduled for TES Responsive to PG&E Techni Prepared as a result of: □ QA Audit and Review □ Eield Inspection Dec □ Independent Calcula □ Seismic Input Defice □ Design Methodology □ Other Deficiency Structure(s), system(s) o 	XXX 830323 (Originator) 5 cal Program: Task Report of ficiency tion Deficiency iency Deficiency	<(if app	No. April
AFW Fire Protection.	•		
6. Description of Concern:			
Refer to EOI 8021, Revision	n 0.		
7. Significance of Concern:		·	
Refer to EOI 8021, Revision	. 0.		
•			
8. Recommendation:			
SWEC to perform a field veri routings.		f the AFW System cir	cuit
9. Signature: <u> </u>	-25-	830323(Originator/O	rganization)



OPEN ITEM REPORT

File	No.	8022

File Revision No. 7

1	
	1.
	2

۱.	Nate	reported	to	PG&E	and	XXX	SWEC	830407

2. Scheduled for TES (Originator) Semimonthly Report No. April

3. Responsive to PG&E Technical Program: Task _____ (if applicable).

4. Prepared as a result of:

a. □ QA Audit and Review Report of

b. D 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:

4160 Volt Circuit Breakers

6. Description of Concern:

Calculated worst case short circuit current exceeds breaker nameplate rating. A concern arises that other safety related breakers may be subject to short circuit duty in excess of nameplate ratings.

7. Significance of Concern:

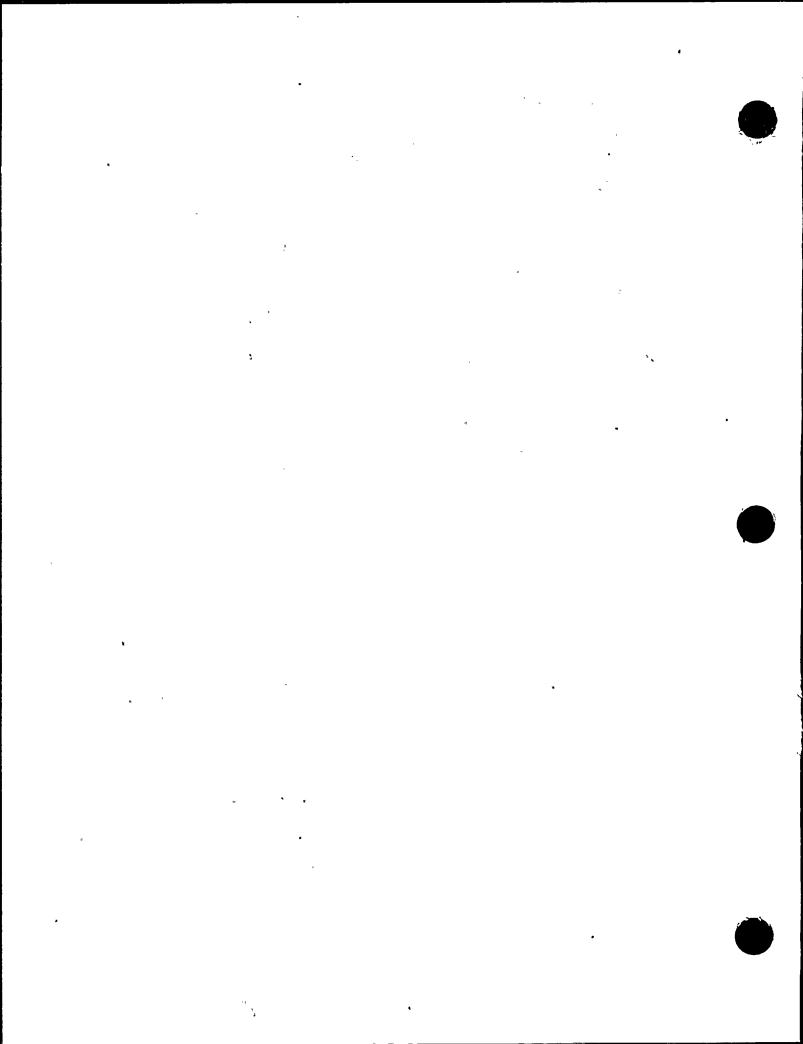
Possible forced outage of safety related buses.

8. Recommendation:

This file is re-opened for SWEC to review other safety related breakers for this condition and provide recommendation for future disposition.

. Signature: 12 Markety for 830407 (Originator/Organization)

W. E. COOPER



	File No.	8023
	File Revision No.	5
1. 2.	Resolution of an: Open Item: XX Class B Error Independent Design Verification Program Resolution is as: a. Closed Item b. XX Deviation	
3. 4. 5.	Open Item with future action by PG&E: Task Date Reported to PG&E 830316 Scheduled for TES Semimonthly Report No. April Resolution based on the following documentation:	

PGandE Completion Package, IDVP File No. 8023, signed January 3, 1983.

The documentation referenced above includes system data, load data and power system load flow calculations representing the operation of the system after LOCA. SWEC concurs with PGandE's conclusion that, with the 230KV start-up transformer and load center transformers at the adjusted taps and with the system operating as described, the calculated voltages at the Engineered Safeguards 4.16KV and 480V systems are above the required minimum for continuous operation of motors.

Final adjustment of tap settings is normally performed during plant test and start-up operations. This file identified the proper adjustments.

6. Program Resolution is:

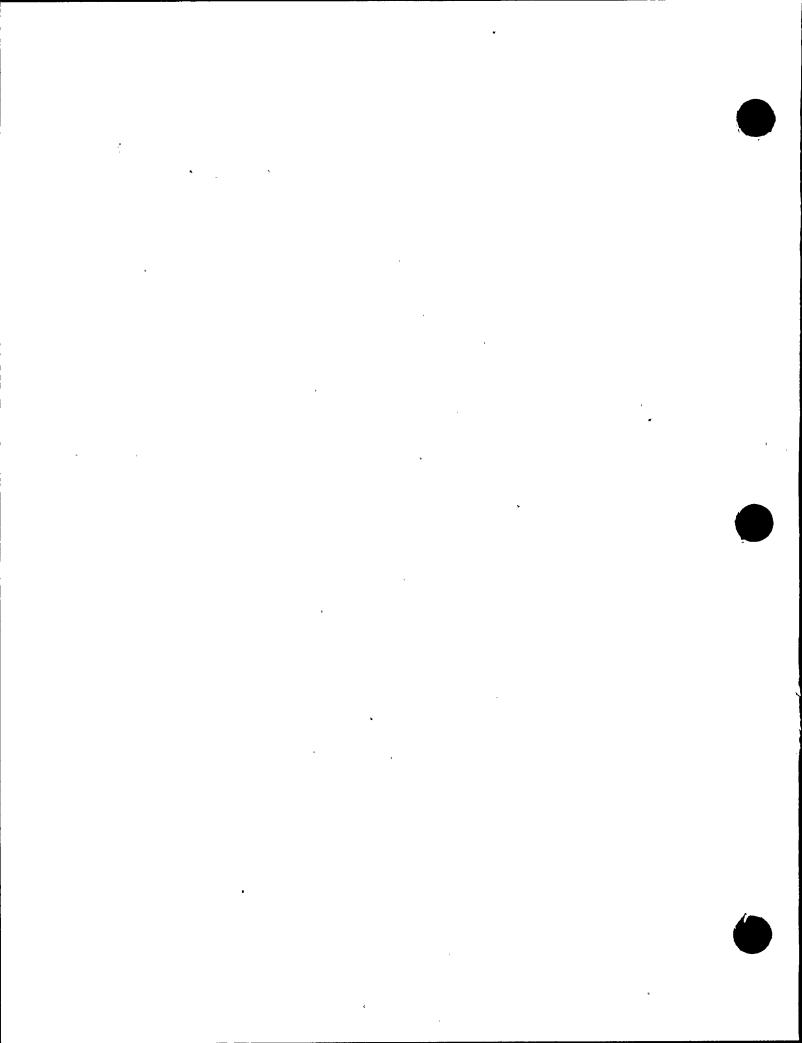
Acceptable based on the following:

PGandE to adjust 230KV start-up transformer tap to 215KV and load center transformer tap on Buses 1F, 1G, 1H, to 4056V in order to compensate for system voltage drops.

No modifications are required.

This file is downgraded from an ER/B to a Deviation to more accurately reflect the area of concern. The basis is that since the transformer taps are adjusted, the voltage levels are acceptable.

		,	
7.	Potential Program Resolution		
	Report signed by <u>John Krechting</u> (SWEC)	on	830311
8.	Signature: Type Name/Organization 830316 (Approved)	_	Date ram Manager)

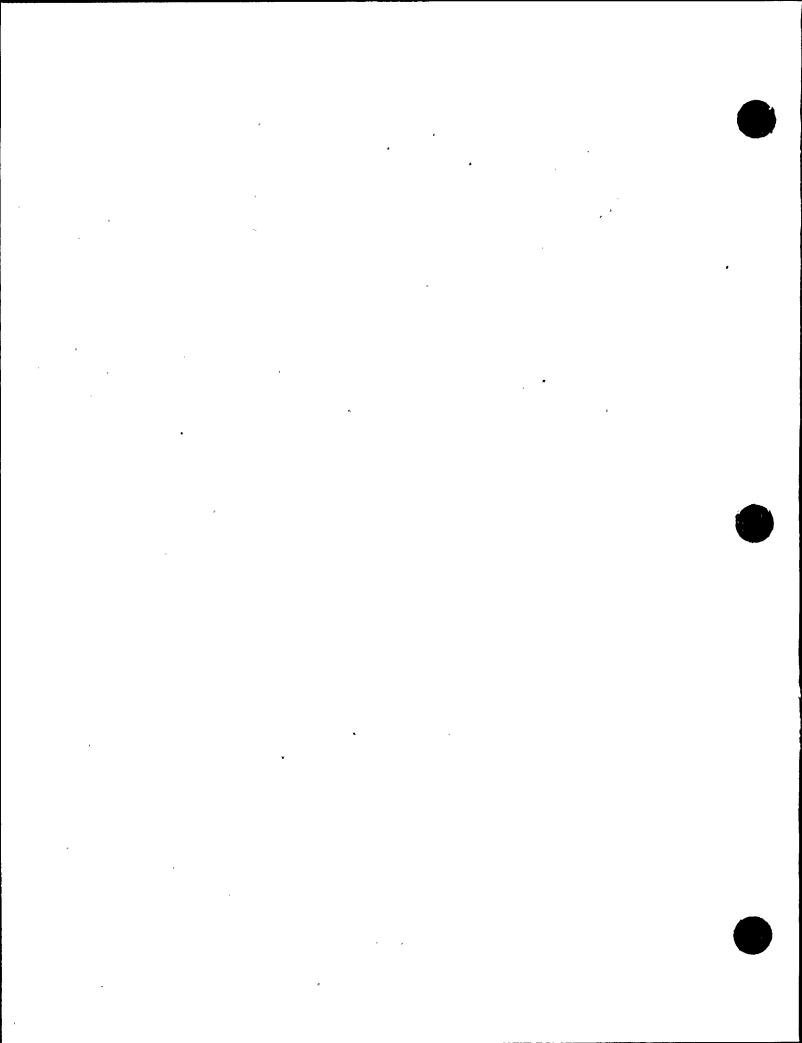


	File	No.	8023
File	Revision	No.	6

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 xxixxxx a Deviation xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
2.	Signature: //PCompan Manager 830316

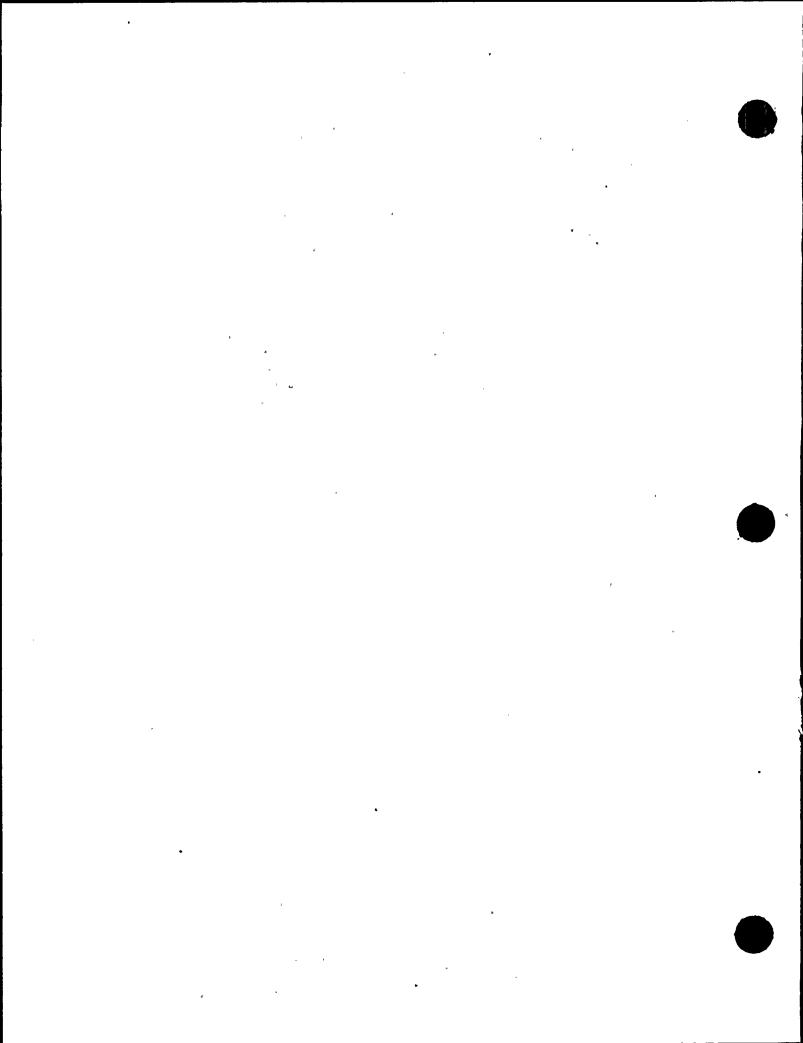
-28-



File	No.	8024
File Revision	No.	6

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 No5_, which recategorized this item as &\\\XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
2.	Signature: 28 Company 830316 Approved/Program Manager



PROGRAM RESOLUTION REPORT	
File No.	8025
File Revision No.	5
Resolution of an: Open Item: XX Class B Error Independent Design Verification Program Resolution is as: a. Closed Item	
c. Open Item with future action by PG&E: Task Date Reported to PG&E 830316 Scheduled for TES Semimonthly Report No. April	
Resolution based on the following documentation:	•
ndE Completion Package, IDVP File No. 8025, signed February 2, documentation referenced above includes system data, load der system load flow calculations representing the operation	ata and of the
	File Revision No. Resolution of an: Open Item: XX Class B

Final adjustment of tap settings is normally performed during plant test and start-up operations. This file identified the proper adjustments.

described sequencing of 4KV motors and the 215KV start-up transformer and load center transformers set at the described taps, the calculated voltages on the Engineered Safeguards 4.16KV and 480V systems will be

6. Program Resolution is:

Acceptable based on the following:

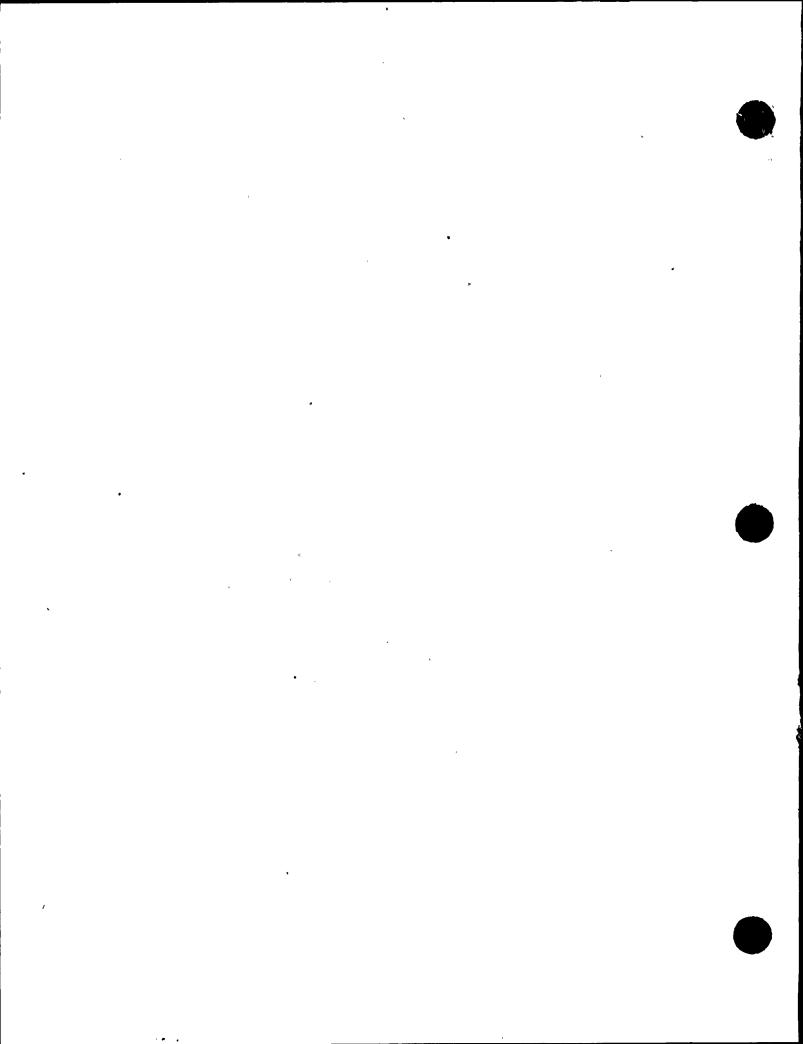
satisfactory for continuous operation of motors.

PGandE to adjust 230KV start-up transformer tap to 215KV and load transformer tap on Buses 1F, 1G, 1H, to 4056V in order to compensate for system voltage drops.

No modifications are required.

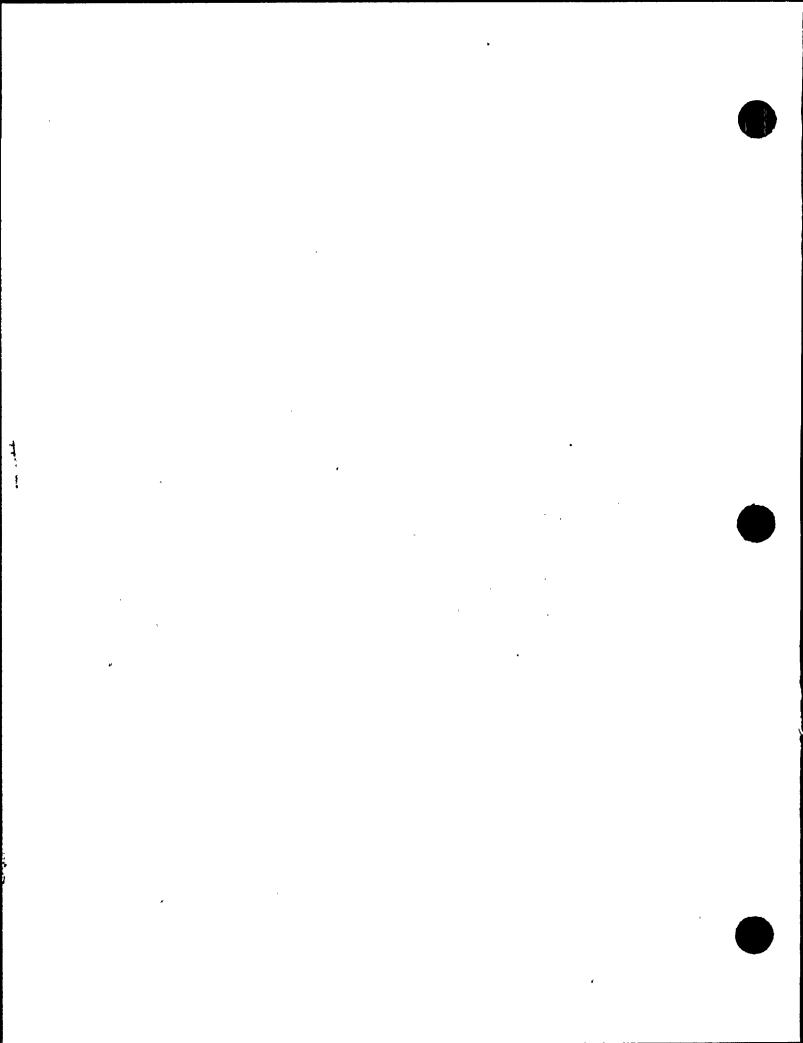
This file is downgraded from an ER/B to a Deviation to more accurately reflect the area of concern. The basis is that since the transformer taps are adjusted, the voltage levels are acceptable.

1		•
7. •	Potential Program Resolution Report signed by John Krechting (SWEC)	on 830311
8.	Signature: Type Name/Organization 830316	Date (Approved/Program Manager)
	-31-	



PROGRAM RESOLUTION REPORT

File No. 8024	
File Revision No. 5	_
1. Resolution of an: Open Item: XX Class Independent Design Verification Program Resolution is as: a. Closed Item b. XX Deviation c. Open Item with future action by PG&E: Task Date Reported to PG&E 830316 Scheduled for TES Semimonthly Report No. April Resolution based on the following documentation:	-
PGandE Completion Package, IDVP File No. 8024, signed February 2, 1983.	
The documentation referenced above includes system data, load data and power system load flow calculations representing the operation of the system from the 230KV source during starting of large motors. SWEC concurs with PGandE's conclusion that with the transformers at the adjusted tap setting and the system operating as described, the calculated voltages at the Engineered Safeguards 480V systems will not cause dropout of the 460V motor starters.	
Final adjustment of tap settings is normally performed during plant test and start-up operations. This file identified the proper adjustments.	7
	4
6. Program Resolution is:	
Acceptable based on the following:	
PGandE to adjust 230KV start-up transformer tap to 215KV and load center transformer tap on Buses 1F, 1G, 1H, to 4056V in order to compensate for system voltage drops.	
No modifications are required.	
This file is downgraded from an ER/B to a Deviation to more accurately reflect the area of concern. The basis is that since the transformer taps are adjusted, the voltage levels are acceptable.	
7. Potential Program Resolution Report signed by John Krechting (SWEC) Type Name/Organization Date	<u>.</u>
8. Signature: 830316 (Approved/Program Manager)	



	File	No.	8025
File	Revision	No.	6

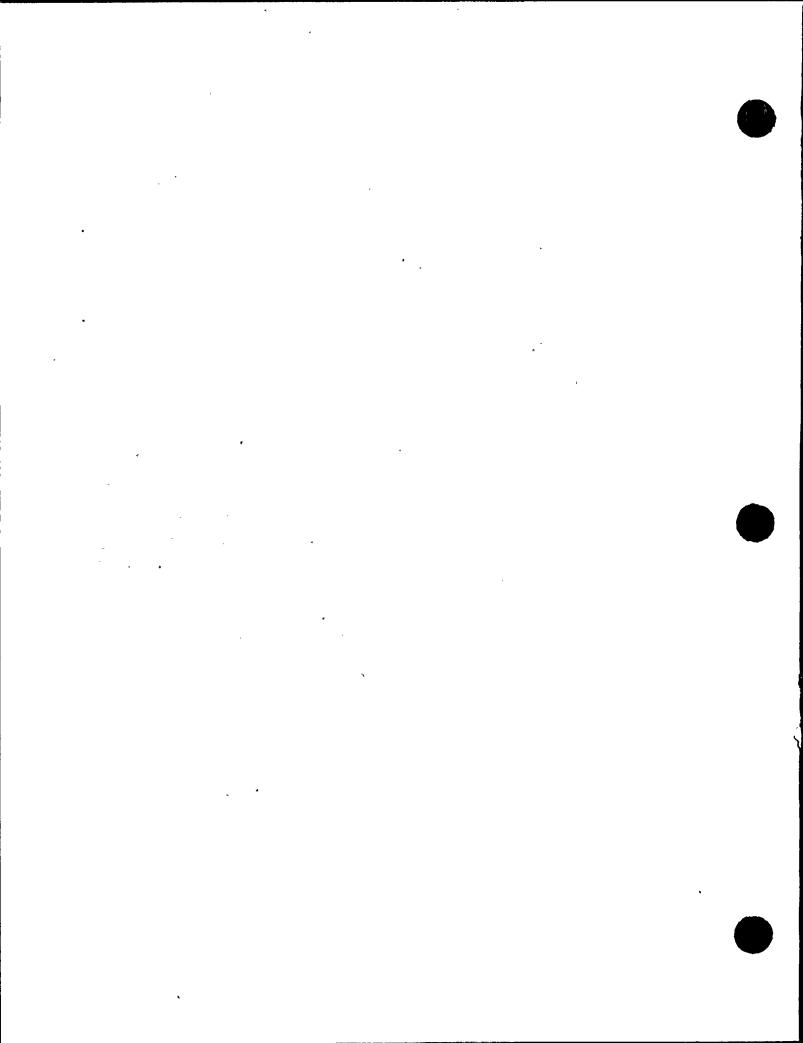
The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

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 extended a Deviation XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
2.	Signature: 21.5 6 830316 Approved/Program Manager

• •

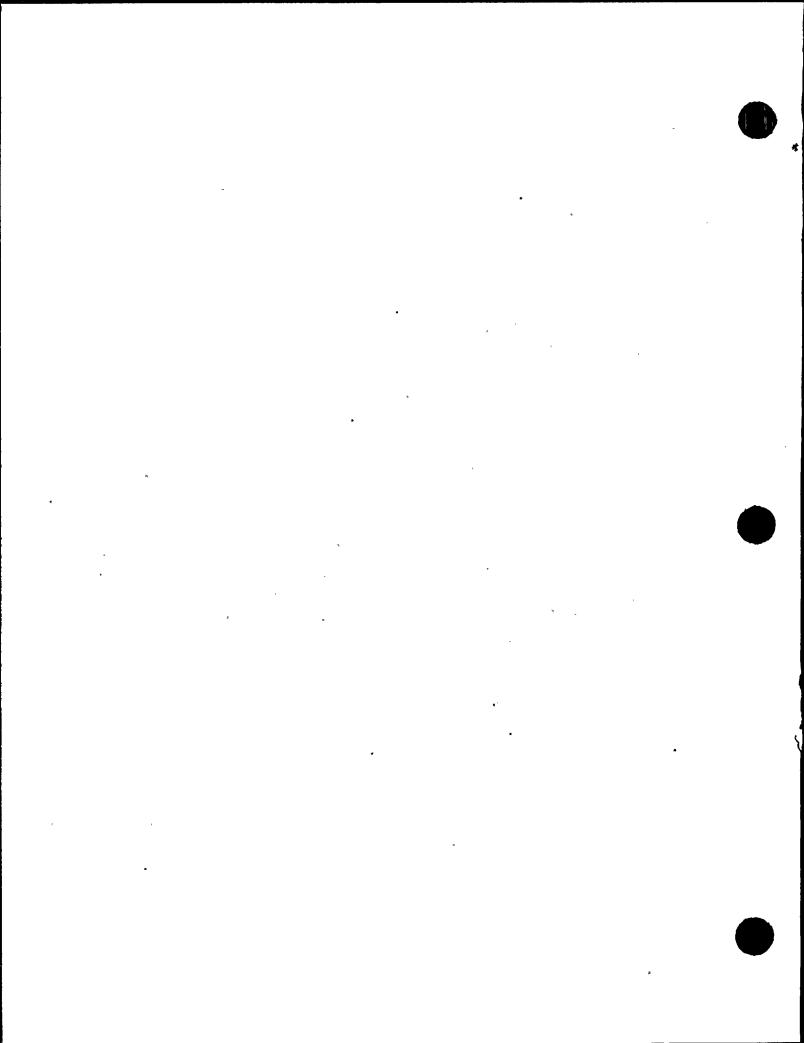
PROGRAM RESOLUTION REPORT File No. 8026		
File Revision No. 5		
 Resolution of an: □ Open Item: ☒ Class B Error Independent Design Verification Program Resolution is as: a. □ Closed Item b. ☒ Deviation 		
c. © Open Item with future action by PG&E: Task 3. Date Reported to PG&E 830316 4. Scheduled for TES Semimonthly Report No. April 5. Resolution based on the following documentation:		
A. PGandE Resolution Sheet, IDVP File No. 8026, dated March 2, 1983.		
B. PGandE Completion Package, IDVP File No. 8026, dated February 2, 1983		
C. PGandE Completion Package, IDVP File No. 8026, dated March 10, 1983.		
The documentation referenced above includes system data, load data and power system load flow calculations representing the operation of the power system, including full auxiliary system load, from the 230KV offsite power source at minimum normal voltage. SWEC concurs with PGandE's conclusion that with the transformers at the adjusted tap settings and with the system operating as described, the calculated voltages at the Engineered Safe-guards 4.16KV and 480V systems are above the required minimum for continuous operation of electrical loads.		
Final adjustment of tap settings is normally performed during plant test and start-up operations. This file identified the proper adjustments.		
6. Program Resolution is:		
Acceptable based on the following:		
PGandE to adjust 230KV start-up transformer tap to 215KV and load transformer tap on buses 1F, 1G, and 1H to 4056V in order to compensate for system voltage drops. In addition, PGandE to adjust the 230KV line voltage between 224V and 227.5KV when plant load is light.		
No modifications are required.		
This file is downgraded from an ER/B to a Deviation to more accurately reflect the area of concern. The basis is that since the transformer taps are adjusted, the voltage levels are acceptable.		

7.	Potential Program Resolution Report signed byJohn Krechting (SWEC)	on	830311	Ŧ
8.	Signature: Type Name/Organization 830316 (Appro	oved/Progi	Date am Manag	er)



	File	No.	8026
File	Revision	No.	6

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 AXXMXX a Deviation OXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
	Sheets, IDVP 8026, signed 830202 and 830310 respectively.
2.	Signature: 2). E. Gogge 830316
	. Approved/Program Manager



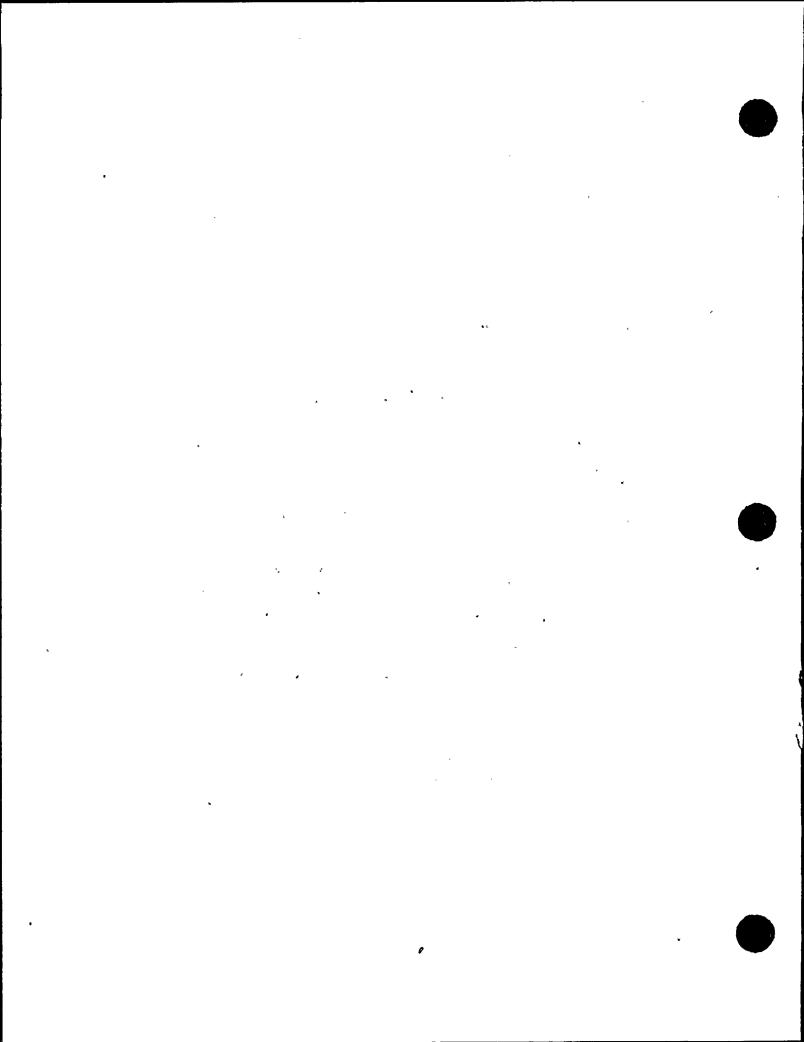
	File	No.	8035
File	Revision	No.	8

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.
were applied by PG&E in response to File R WKXKKXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX		The IDVP has been informed by PG&E that MM physical modifications were applied by PG&E in response to File Revision No7 WMIXMXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

2. Signature:

Approved/Program Manager



	File	No.	8035
File	Revision	No.	9

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

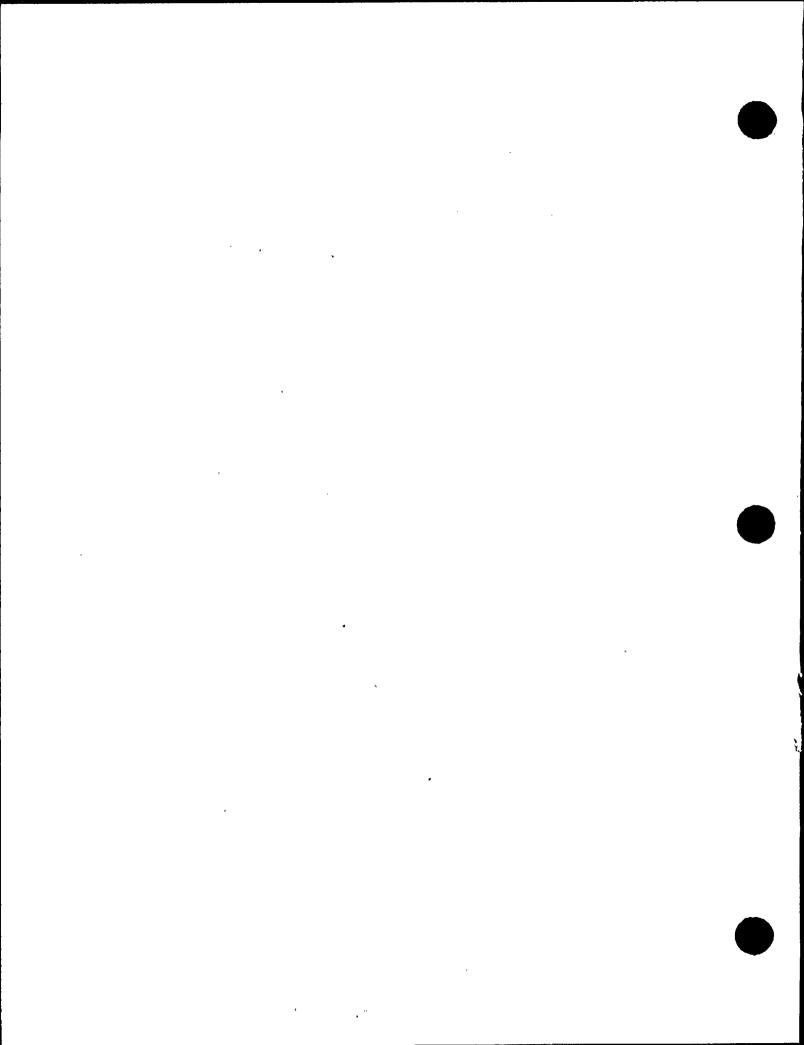
•		
File Revision No.	is a Program Resolution	Report which
recategorized this	item as a Closed Item.	

1. The action which completes the IDVP effort is:

2. Signature: D. States for W.E. Coopen 830407

Approved/Program Manager

NOTE: THIS REV IS ISSUED TO CLARIFY THE STATUS OF THIS FILE AS AN ERROR CLASS C.



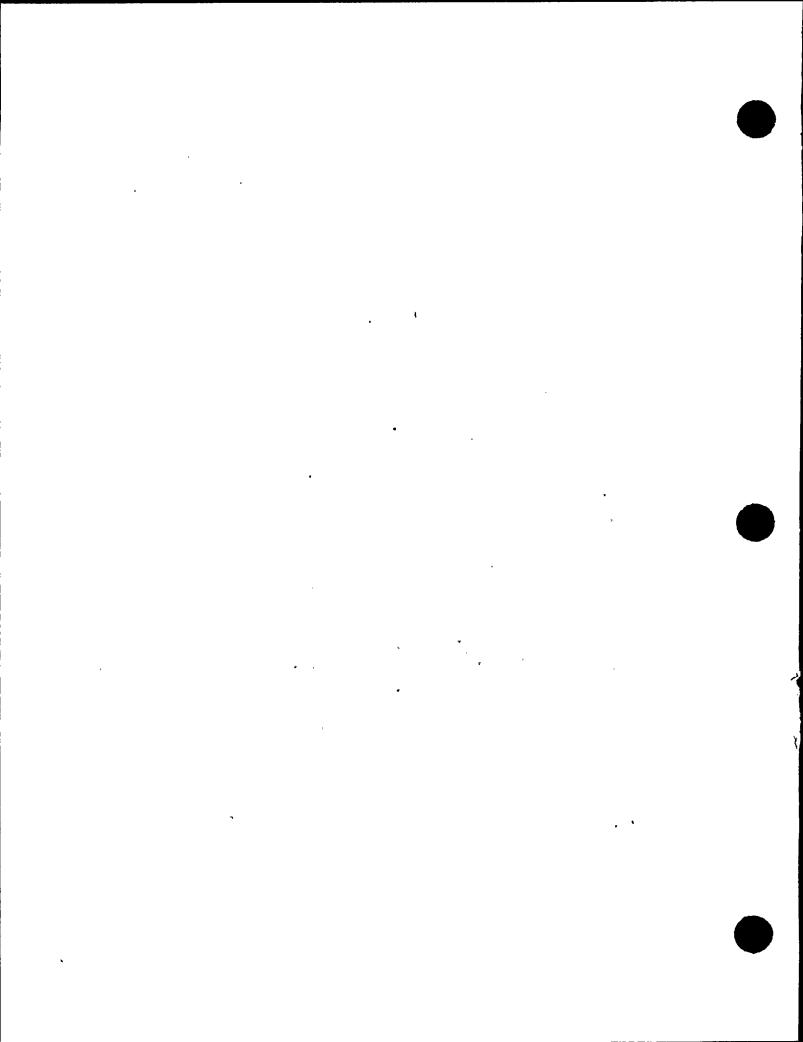
	File No.	8041
	File Revision No.	7
1. 2.	Resolution of an: EX Open Item: Class Error Independent Design Verification Program Resolution is as: a. Closed Item b. Deviation Composition Program Resolution is as: Composition Program Resolution is as:	
3. 4.	Open Item with future action by PG&E: Task Date Reported to PG&E 830311 Scheduled for TES Semimonthly Report No. April	
5.	Resolution based on the following documentation:	
(a)	DCP Completion Sheet, IDVP File 8041, signed 821215.	
(h)	DCP Completion Sheet, IDVP File 8041, signed 830302.	Į6.

6. Program Resolution is:

The response satisfies the concerns of this EOI File. No modifications are required. This file will be closed as a Deviation.

	Potential Program Resolution Report signed byJohn Krechting (SWEC)	on	830309
8.	Signature: Of Mame/Organization 830311 (Approved	- I/Progi	Date ram Manager)

-37- WECONER



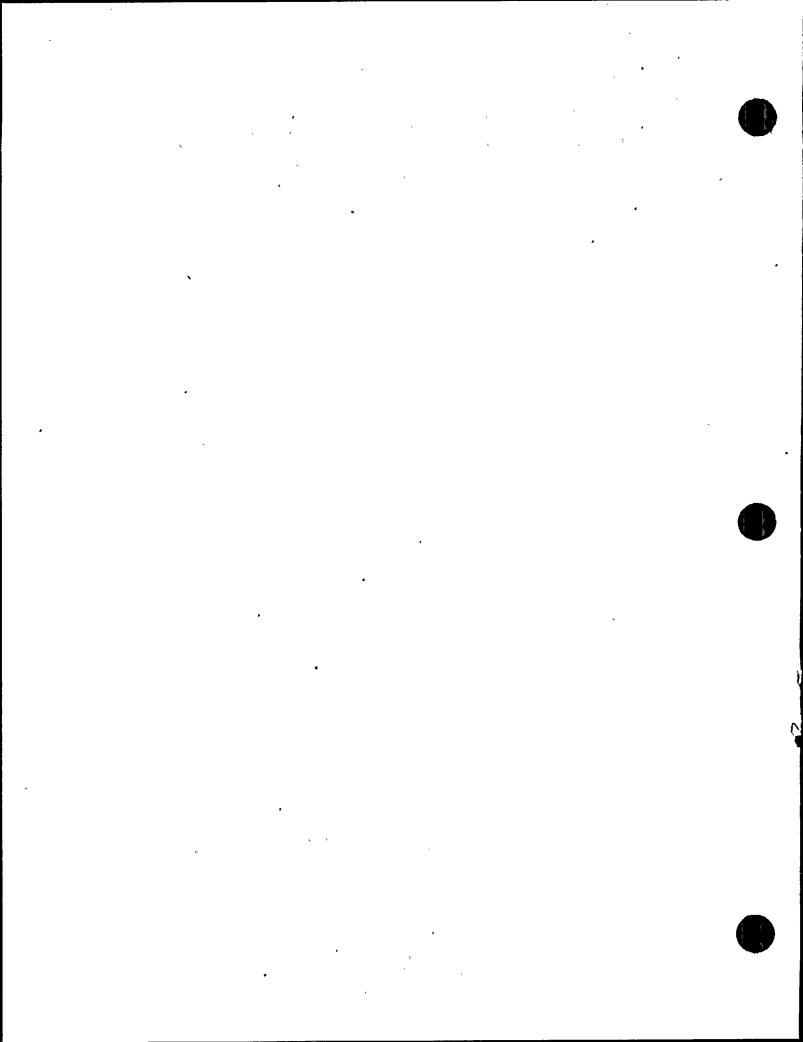
	File	No.	8041
File	Revision	No.	8

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

1.	The a	action which completes the IDVP effort is:
		File Revision No is a Program Resolution Report which recategorized this item as a Closed Item.
٠	X	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 eXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

2. Signature: L. Thasa

-Approved/Program Manager



	·	
	OPEN ITEM REPORT File No. 8044	
_	SWEC File Revision No. 7	
1.	Date reported to PG&E and XXX 830316	
2.	Scheduled for TES (Originator) Semimonthly Report No. April	
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. XX Design Methodology Deficiency	
	f. Other Deficiency	
5.	Structure(s), system(s) or component(s) involved:	
	AFW and CRVP Systems, Cable Splices in Control Circuits.	
	the state of the s	

6. Description of Concern:

Refer to EOI 8044, Revision 0.

7. Significance of Concern:

Refer to EOI 8044, Revision 0.

8. Recommendation:

SWEC to perform a field verification review of splice locations provided by DCP response, IDVP File No. 8044, signed 830218.

Signature:

830316(Originator/Organization)

•

<u></u>	File	No.	8044
File	Revision	No.	9

1.	Resolution	of	an:	囟	Open	Item:	Class	Error
_			-		-,		 V I W J J	L 1 0 0

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

4. Scheduled for TES Semimonthly Report No.

5. Resolution based on the following documentation:

- a) PG&E Completion Package, IDVP File No. 8044, signed Februrary 18, 1983 and addendum signed March 1, 1983.
- b) IDVP field inspection of splice locations, which has verified that no splices are located in areas subject to pipe crack temperatures higher than 340°F.

6. Program Resolution is:

A deviation, because of the lack of previous documentation identifying the locations and potential environments of cable splices in the AFW and CRVP electrical systems.

7. Potential Program Resolution
Report signed by John E. Krechting / SWEC

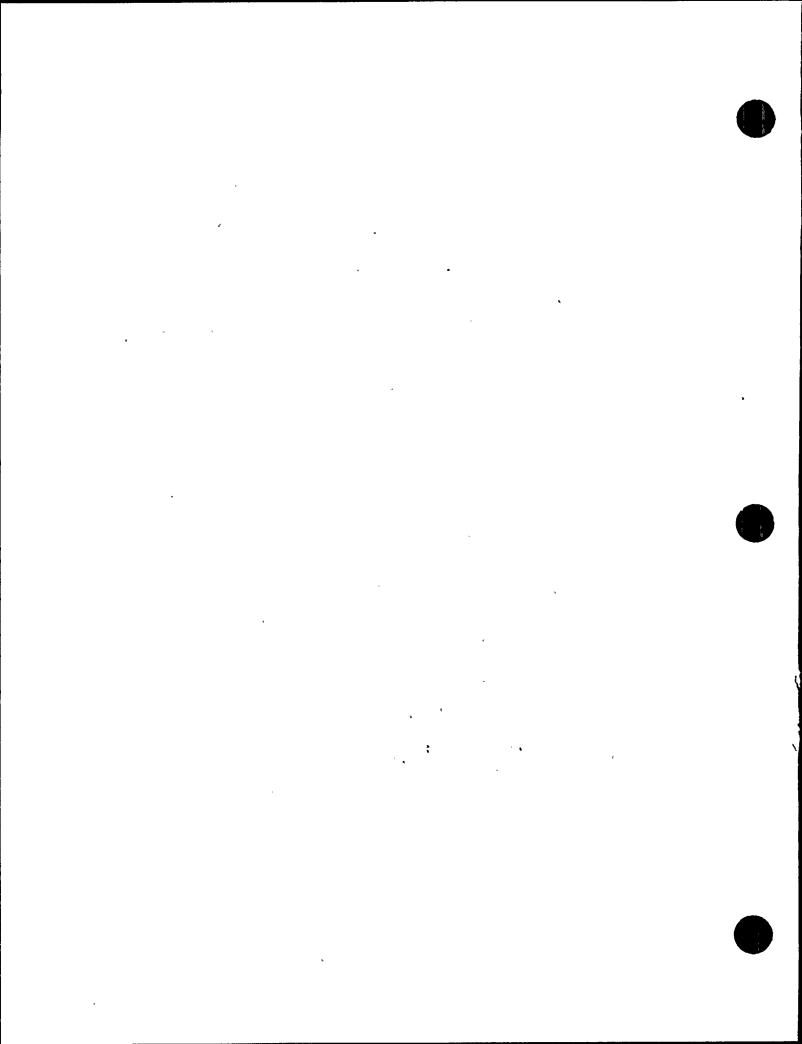
8. Signature:

On 4/7/83

Date

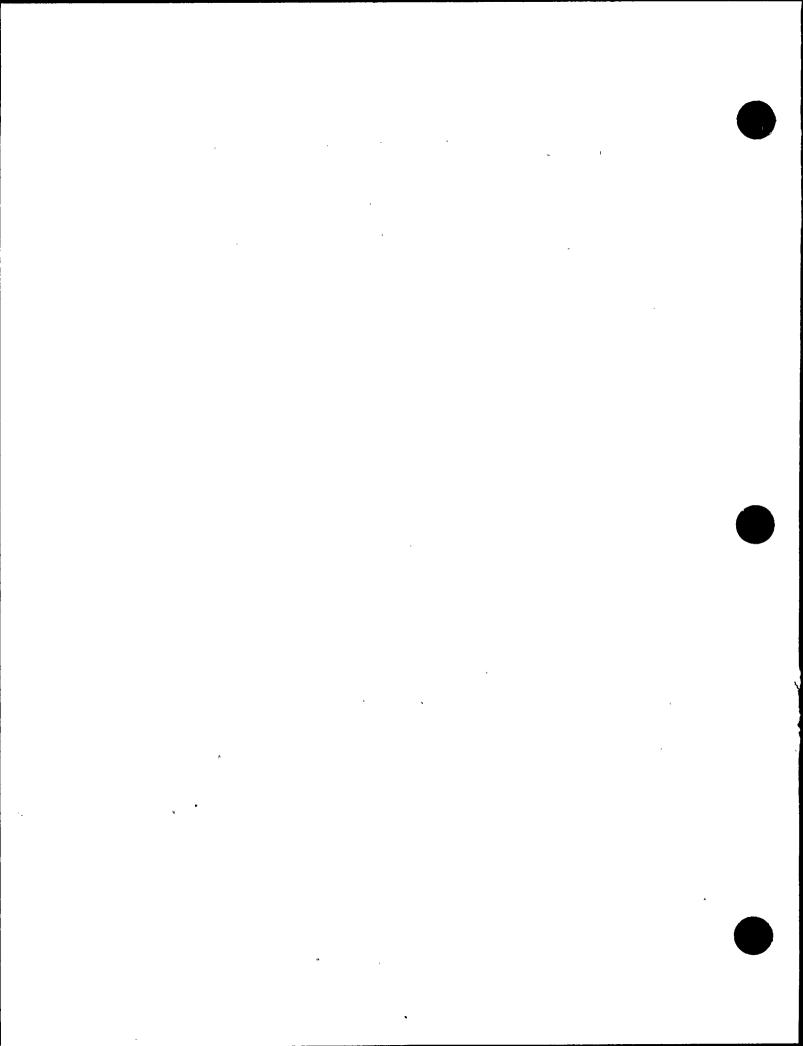
(Approved/Program Manager)

-40- W.F. COOPER



	File	No.	8044
File	Revision	No.	10

•	The action which completes the IDVP effort is:
	[X] File Revision No. 9 is a Program Resolution Report which recategorized this item as a XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
4	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: Of Manager Approved/Program Manager W. F. COOPER



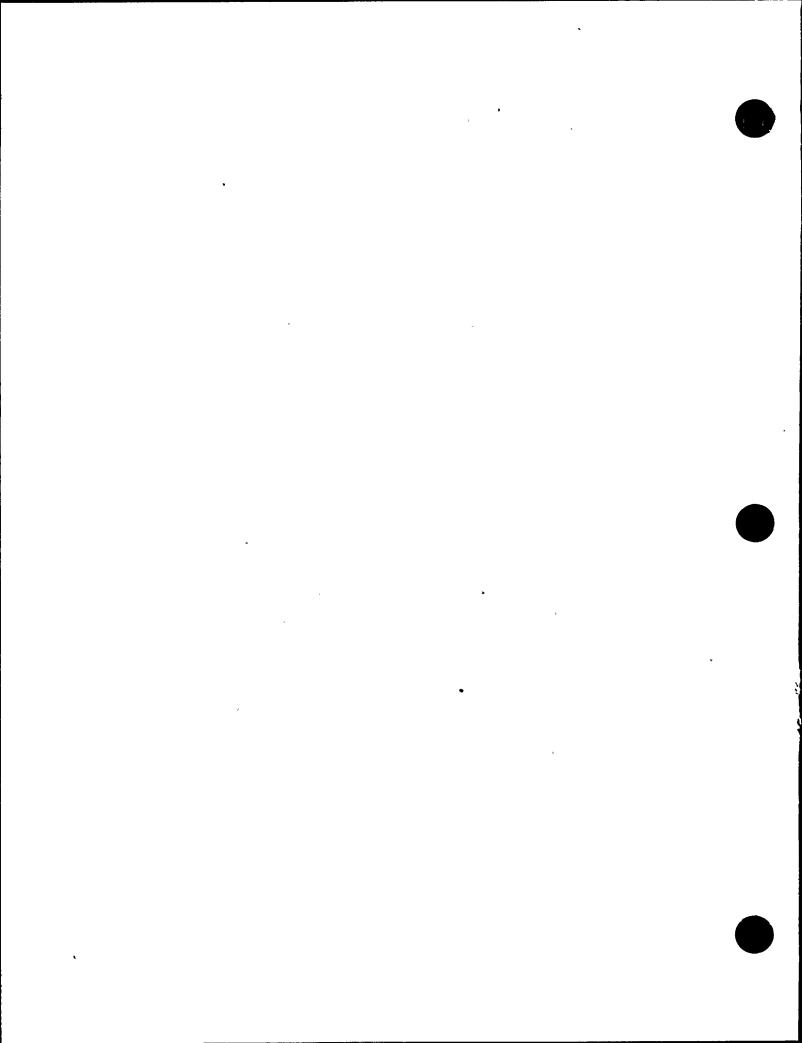
	File No.	8046
	File Revision No.	5
	Resolution of an: Open Item: Class A/B Error Independent Design Verification Program Resolution is as: a. Closed Item b. Deviation c. Open Item with future action by PG&E: Task	
4.	Date Reported to PG&E 830315 Scheduled for TES Semimonthly Report No. April	
	Resolution based on the following documentation: PGandE Completion Sheet. IDVP File No. 8046, dated 821220.	

- (b) PGandE Resolution and Completion Sheets, Revision 1, IDVP File No. 8046 dated 830131.
- (c) PGandE Completion Sheet, Revision 2, IDVP File No. 8046 dated 830225.
- (d) Telecons: R. Hurford (SWEC) and B. Smith (PGandE) on 830216 and 830228, documented in SWEC notes.
- 6. Program Resolution is:

The concern of this EOI is that control power for some safety-related devices is not supplied from the same or related bus as the device's power bus. PGandE recognized this problem and initiated changes (DCO-E-E-446, Rev. 52) on October 1, 1981. The modifications, however, where not completed until May 26, 1982.

- 1. A single failure analysis shows the control power question to have an insignificant effect on the safety related function of the CRVP system after the modification and meets the FSAR requirement. There exists an acceptable arrangement of the Train powering from buses.
- The verification of the modification is transferred to EOI 8012 which is an Error A.
- The generic concerns raised by this EOI are transferred to EOIs 8012 and 8016.
- This EOI is reclassified from an Error A/B to a Deviation and is closed.

7.	Potential Program Resolution Report signed by _John Krechting (SWEC)	on 830311
8.	Signature: Type Name/Organizatio 8303	on 030311 n Date 15 (Approved/Program Manager)

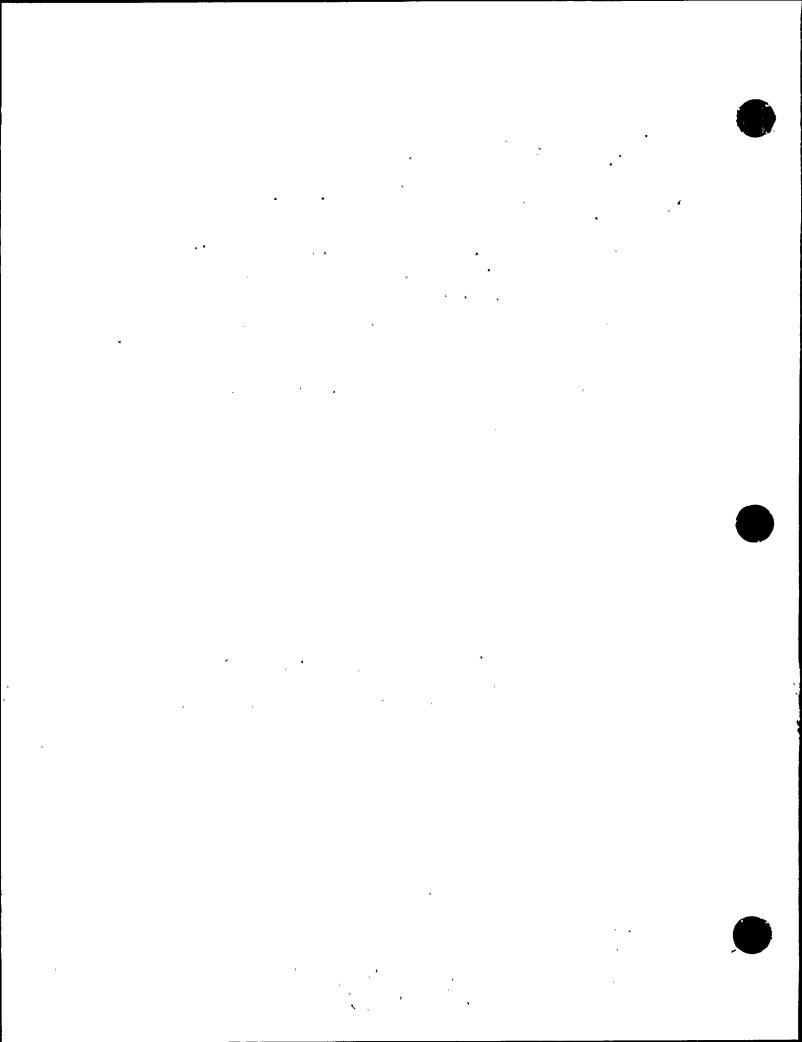


	File	No.	8046
File	Revision	No.	6

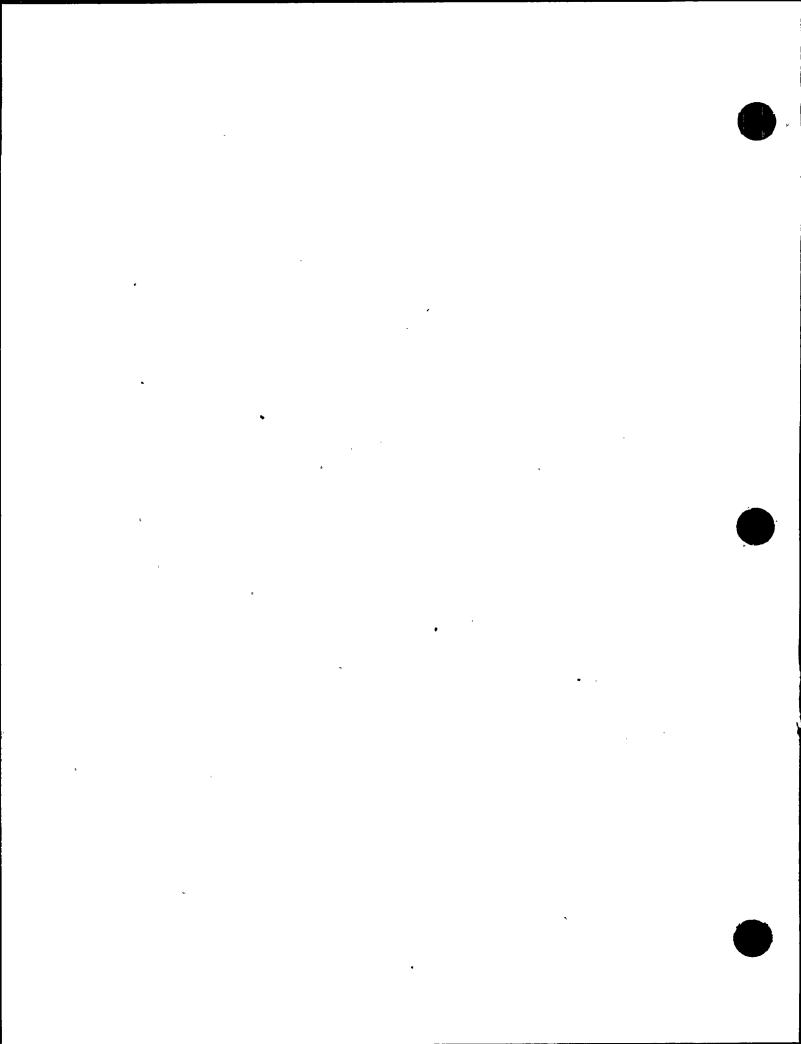
The DCNPP Independent Design Verification Program (IDVP) effort related to the above File Number is complete.

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.
•	X	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 \XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
	,	DCP Completion Sheet, revision 2, IDVP File No. 8046, dated 830225

2. Signature: 830315
Approved/Program Manager

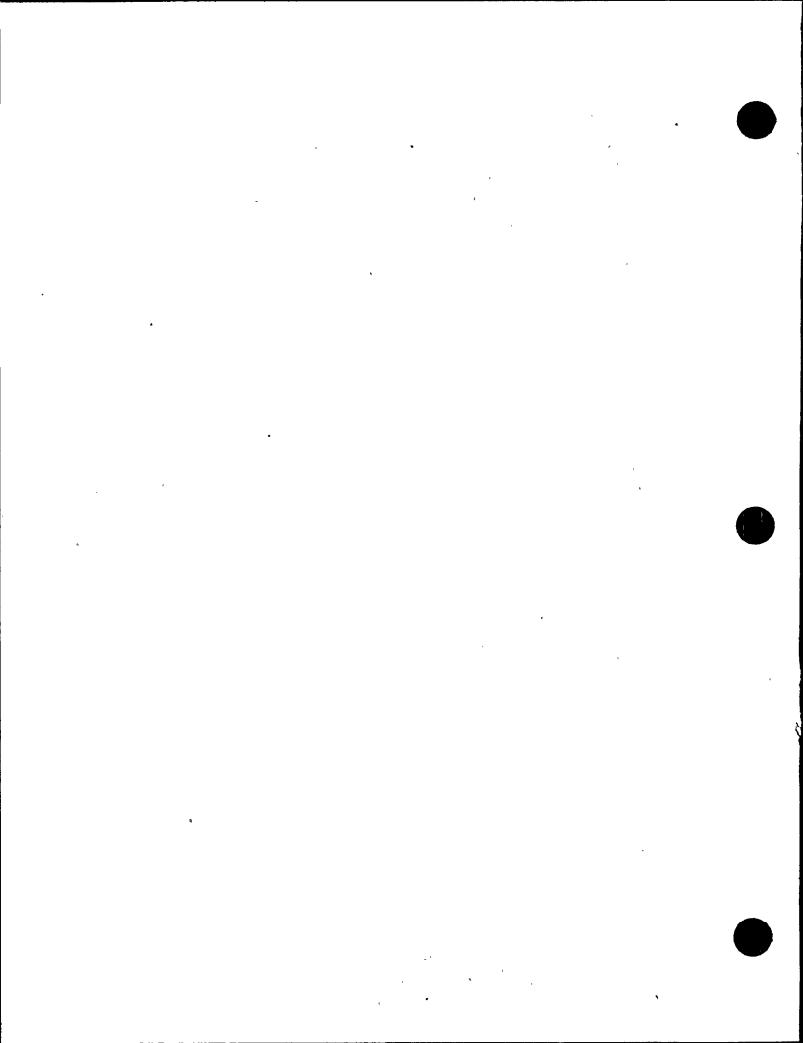


	PROGRAM RESOLUTION REPORT
	File No. 8047
1	File Revision No. 5
1. 2.	Independent Design Verification Program Resolution is as: a. Closed Item b. Deviation
3.	Scheduled for TES Semimonthly Report No. April
	DCP Resolution Sheet and PG & E completion sheet, IDVP File No. 8047 Rev. 2 dated 830203 which states that:
	 Under accident conditions safety-grade signals, other than from Relay 3AFWP, are available to actuate Steam Generator Blowdown Valvés and achieve isolation.
•	 Under other conditions the AFW system has sufficient capacity, even assuming the failure of one auxiliary feedwater pump, to achieve minimum required flow.
-	
6.	Program Resolution is:
	 This file is classified as a deviation due to an inconsistency in the assumptions for the system design requirements.
	 No safety limits or design criteria have been exceeded and no modifications are required.
•	
7.	Potential Program Bosolution
	Potential Program Resolution Report signed by John E. Krechting/SWEC on 830323 All Type Name/Organization Date
8.	Signature: Date Signature: Manager) -44- W. F. Cooper One of the property o



	File	No.	8047
File	Revision	No.	6

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 **xither* a Deviation.oxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
2.	Signature: De Manager 830407 Approved/Program Manager
	W.E. COUPER



<u>.</u>	OPEN ITEM REPORT	File No.	8049
	SWEC	File Revision No.	10
Date reported to PG&E and 1	DEXSX 830406		
Scheduled for TES			
Responsive to PG&E Technica	āl Program: Task	(if app	licable)
Prepared as a result of:	_		
a. □ QA Audit and Review F	Report of		
b. 🛭 Field Inspection Defi			
c. 🗆 Independent Calculati	ion Deficiency		
d. □ Seismic Input Deficie	ency		
e. □ Design Methodology De	eficiency	•	ı
f. □ Other Deficiency			
Structure(s), system(s) or	component(s) inv	olved:	

AFW System - Pipe Break in Line 594.

6. Description of Concern:

2.
 3.

5.

Refer to EOI 8049, revision 6.

DCP Completion Sheet signed 830126 stated that conduit KK792 is flush mounted on the ceiling and jet impingement from longitudinal break on line 594 will not result in any lateral force on this conduit. During Field walkdown by the IDVP on 830330 it was observed that this conduit is not flush but is mounted approximately 12 inches off the ceiling.

7. Significance of Concern:

A postulated break in line 594 and a postulated single failure, i.e. purple power could result in loss of AFW flow.

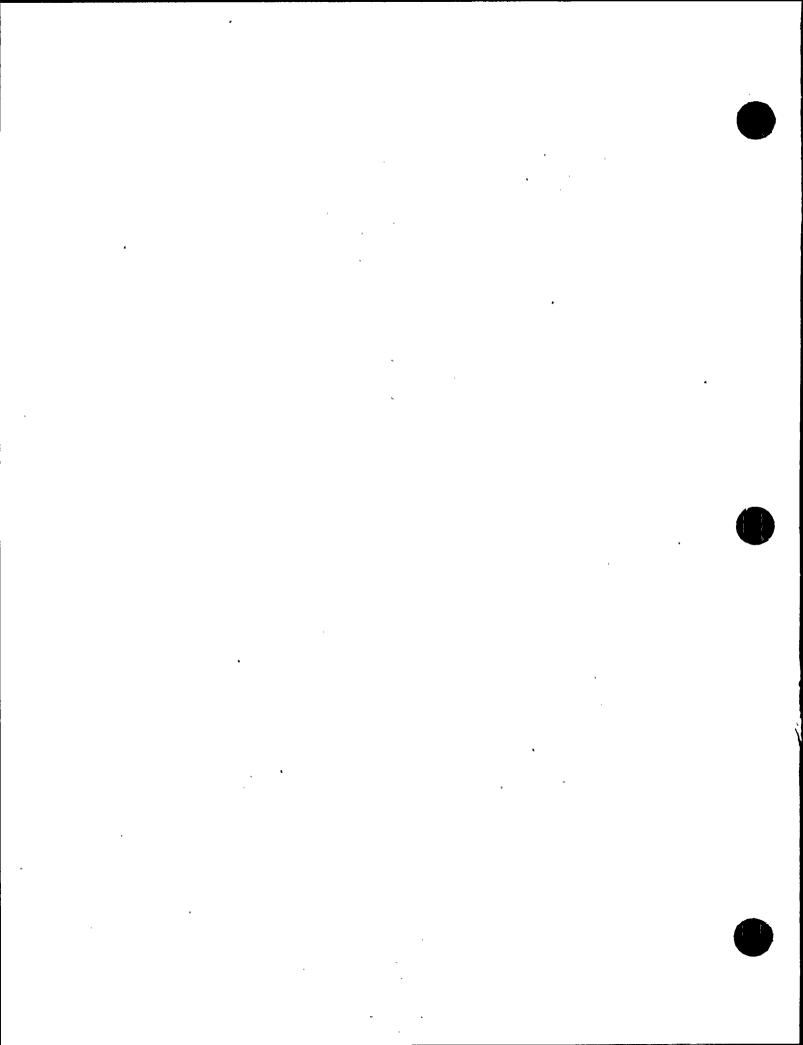
8. Recommendation:

TES requests SWEC to review this condition and provide recommendation for future disposition.

9. Signature:

830406 (Originator/Organization)

-46-



	File No.	8049
	File Revision No.	12
1.	Resolution of an: © Open Item: □ Class Error Independent Design Verification Program Resolution is as: a. □ Closed Item b. □ Deviation c. © Open Item with future action by PG&E: Task	
3. 4.	Date Reported to PG&E 830406 Scheduled for TES Semimonthly Report No. April Resolution based on the following documentation:	

Refer to EOI File No. 8049, Revision 5.

6. Program Resolution is:

To demonstrate compliance with licensing commitments in FSAR Appendix 3.6 the DCP should provide the following:

Re-evaluation of the effects of jet impingement thrust force from postulated break 1800 in line 594, on conduit KK792. The re-evaluation should address the vertical component of the jet force on the conduit, since the as-built condition of the conduit is not flush-mounted on the ceiling as previously indicated in DCP Completion Sheet, IDVP File No. 8049, Revision 5 dated 830126.

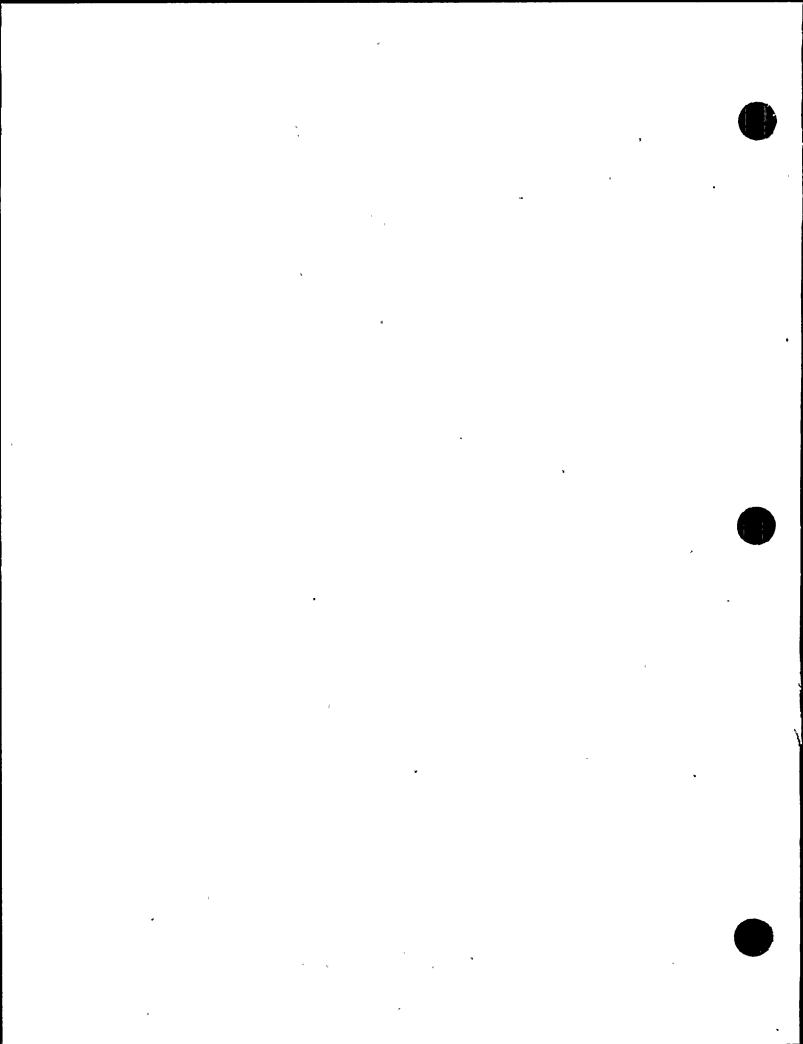
7. Potential Program Resolution
Report signed by John Krechting (SWEC) on 830406

8. Signature:

W. E. Cooper

W. E. Cooper

-47-



	File No.	8050
	File Revision No.	5
1. 2. 3. 4. 5.	Resolution of an: Ø Open Item: ☐ Class Error Independent Design Verification Program Resolution is as: a. ☐ Closed Item b. Ø Deviation c. ☐ Open Item with future action by PG&E: Task Date Reported to PG&E 830315 Scheduled for TES Semimonthly Report No April Resolution based on the following documentation:	

DCP Completion Sheet, signed 830310.

6. Program Resolution is:

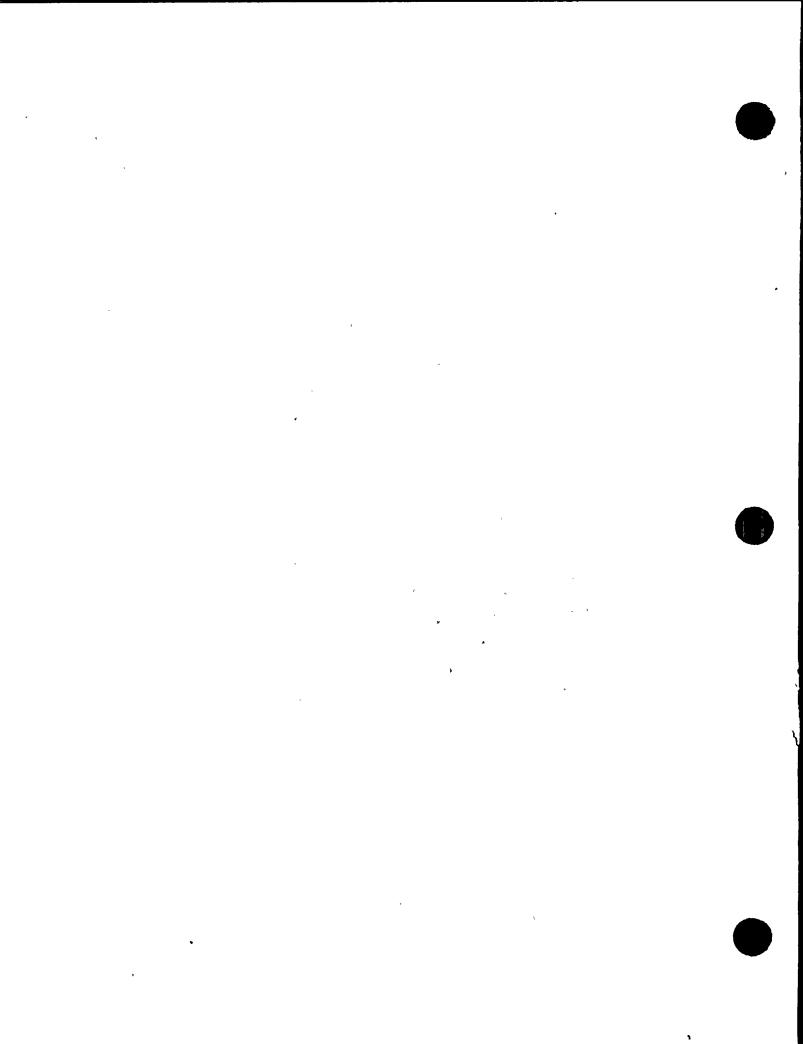
The IDVP has reviewed the document above and concluded that the logic as described satisfies the original concern.

No physical modifications are required.

An IDVP Completion Report will be issued.

This File will be closed as a Deviation.

7.	Potential Program Resolution Report signed byJohn Krechting	(SWEC)	on	830311	
8.	Signature: Type Name/Or	rganization 830315 (Approved/	Prog	Date Jram Manag	jer)

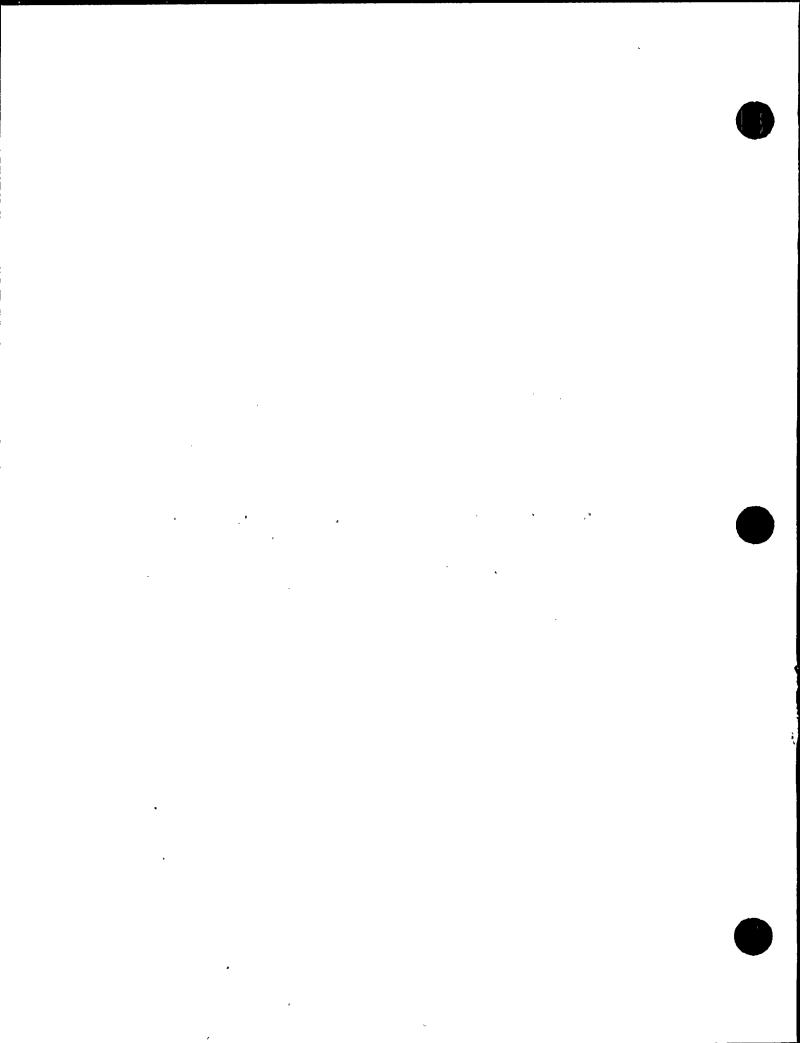


	File	No.	8050	
File	Revision	No.	6	

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 No5_, which recategorized this item as exittee a Deviation announce and announce the IDVP is DCP Completion Sheet dated 830310
2.	Signature: 706 Gay - 830315 Approved/Program Manager

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PROGRAM RESOLUTION REPORT File No. 8054
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 830315 4. Scheduled for TES Semimonthly Report No April 5. Resolution based on the following documentation:
DCP response to EOI File 8054:
A. Resolution and Completion Sheets, dated 830128.
B. Resolution and Completion Sheets, Revision 1, dated 830304.
C. Telecon: R. Reed (SWEC), W. Valstrom (PGandE) on 830301.
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·
•
6. Program Resolution is:
Based on the above, it has been determined that the control circuits identified in the applicable DCP drawings as Class 1E are, in fact, not Class 1E. Therefore:
 This EOI is reclassified from an Error A/B to a Deviation since the drawings reflect incorrect designation.
 No error or violation of the FSAR was made with regard to the separa- tion of cabling.
3. No physical modifications or additional verification is required.
4. This file will be closed.
;
7. Potential Program Resolution Report signed by John Krechting (SWEC) on 830311
Type Name/Organization Date 8. Signature: 2 Congar 830315(Approved/Program Manager)
-50-



	File	No.	8054	
File	Revision	No.	6	

The	DCNP	P Independent Design Verification Program (IDVP) effort related to
the	above	File Number is complete.
1.	The a	action which completes the IDVP effort is:
		File Revision No is a Program Resolution Report which recategorized this item as a Closed Item.
• '	X	The IDVP has been informed by PG&E that no physical modifications will be applied by PG&E in response to File Revision No5, which recategorized this item as xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

Approved/Program Manager

2. Signature:

-51-

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	. <u>ERROR_REPORT</u>	File No	0000
	Class: C	File Revision No.	5
	A,B,C or D	PG&E Task No.	
1.	Dates: Reported to Program Review Committee	NA	
	Program Review Committee Action	NA	
	Reported to PG&E and Originator	830311	
2.	Scheduled for TES Semimonthly Report No. Apr		
	Structure(s), system(s), or component(s) invo	lved:	
	•		

ONEE

Auxiliary Feedwater Controls.

Description of Error:

1

Mutually Redundant Class 1 pressure indicators P153A and P152A located on the main control board are not installed according to FSAR installation and separation criteria.

Significance of Error:

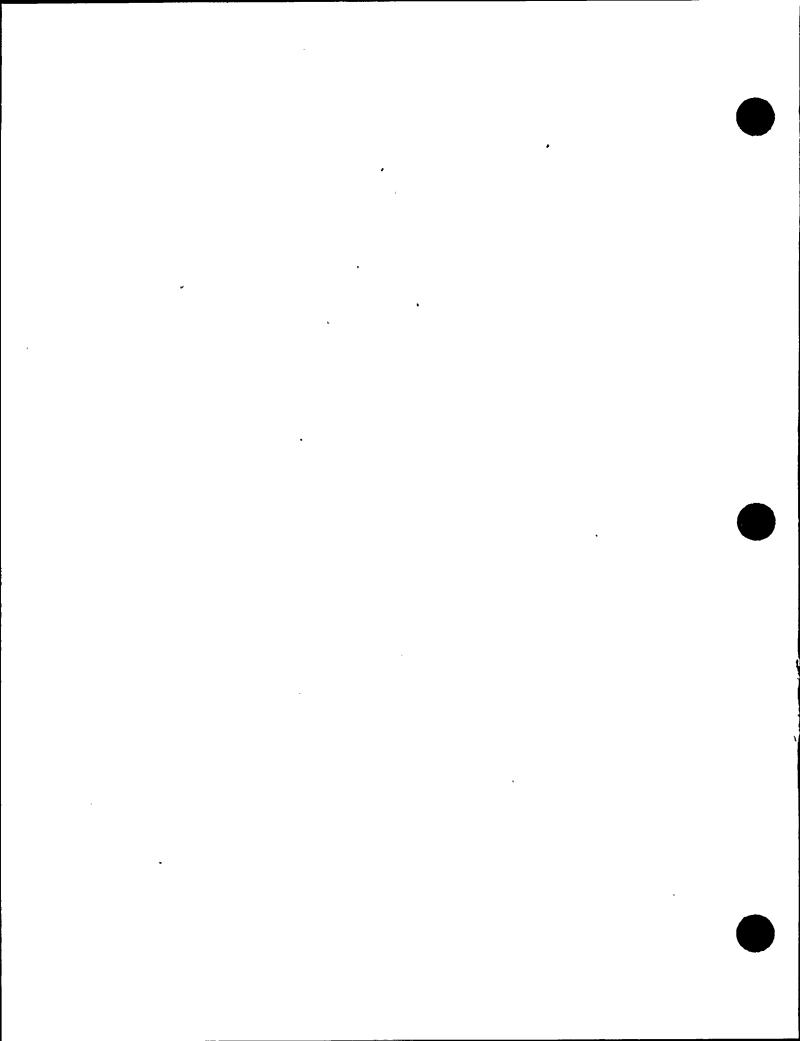
The PGandE response is contained in their Resolution Sheet and supporting material for File No. 8055, Revision 2, and their Completion Sheet, dated 830310.

PGandE responded that the FSAR commitment to separation of mutually redundant Class 1 devices was intended to apply to current carrying portions of mutually redundant controls, and not to low energy and voltage signals. Additional supporting information in PGandE's response included an Interoffice Memo dated February 3, 1983, identified as Letter ICE-2697 requested PGandE's Licensing Group to revise the FSAR to reflect the asbuilt installation, and the approval of the FSAR revision by the Plant Safety Review Committee contained in the Completion Report.

Recommendation:

It is concluded that the modification to the FSAR is a satisfactory resolution to this file. The modification to the FSAR in lieu of a physical modification eliminates the generic concern. This Open Item is downgraded to an error Class "C" which more accurately describes the As no physical modifications are required, no further verification is necessary. This File will be closed.

7.	Potential Er	ror Report signed by	John Krechting	(SWEC) on	830222
8.	Signatures:	NA NA	Type Name Organ	extress for	Date 830311
		For Program Review -52	Committee App	roved/Program E COOPER	Manager



	File	No.	8055
File	Revision	No.	6

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 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
	00 + 10

Approved/Program Manager

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	OPEN ITEM REPORT	File No.	8057
1. Date reported to PG&E and	SWEC 930311	File Revision No.	3
2. Scheduled for TES	(Originator) So	emimonthly Report No	o. <u>April</u>
 Responsive to PG&E Technic Prepared as a result of: 	al Program: Task	(if appl	icable)
a. 口 QA Audit and Review b. 凶 Field Inspection Def			
c. □ Independent Calculat d. □ Seismic Input Defici	ion Deficiency		
e. □ Design Methodology [Deficiency		
f. □ Other Deficiency5. Structure(s), system(s) or	component(s) inv	olved:	
Control panels for Auxiliary and Pressurization.	Feedwater System	and Control Room Ve	ntilation
6. Description of Concern:			
	•		
See EOI File 8057, Revision	0.		
• • • •			
	F		
,			
7. Significance of Concern:	•		
See EOI File 8057, Revision	0.		

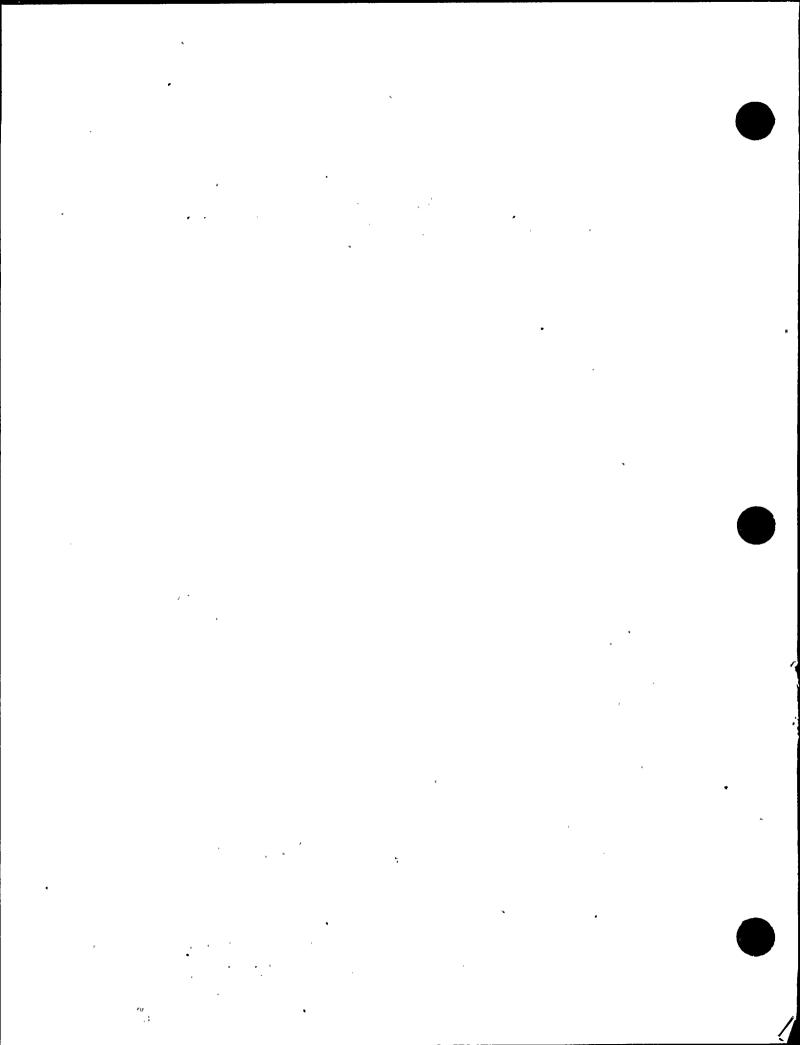
8. Recommendation:

SWEC to review PGandE response (Ref. Resolution Sheet, IDVP File No. 8057, dated 830307) and recommend disposition.

9. Signature: U.C. Mrs

for 83

830311 (Originator/Organization)



	ERROR REPORT	File No.	8057
	· Class: A	File Revision No.	5
	A,B,C or D	PG&E Task No.	
1. Dates		NA	
•	Program Review Committee Action	NA	
	Reported to PG&E and Originator	830315	
 Sched Structure 	<pre>luled for TES Semimonthly Report No. Apr ture(s), system(s), or component(s) invo</pre>	il .	

AFW and CRVP System Controls.

4. Description of Error:

Control panels associated with the AFW System and the CRVP System contain circuits which do not meet the separation criteria established in FSAR section 8.3.3.

5. Significance of Error:

Class IE circuits do not meet single failure criteria due to lack of physical separation.

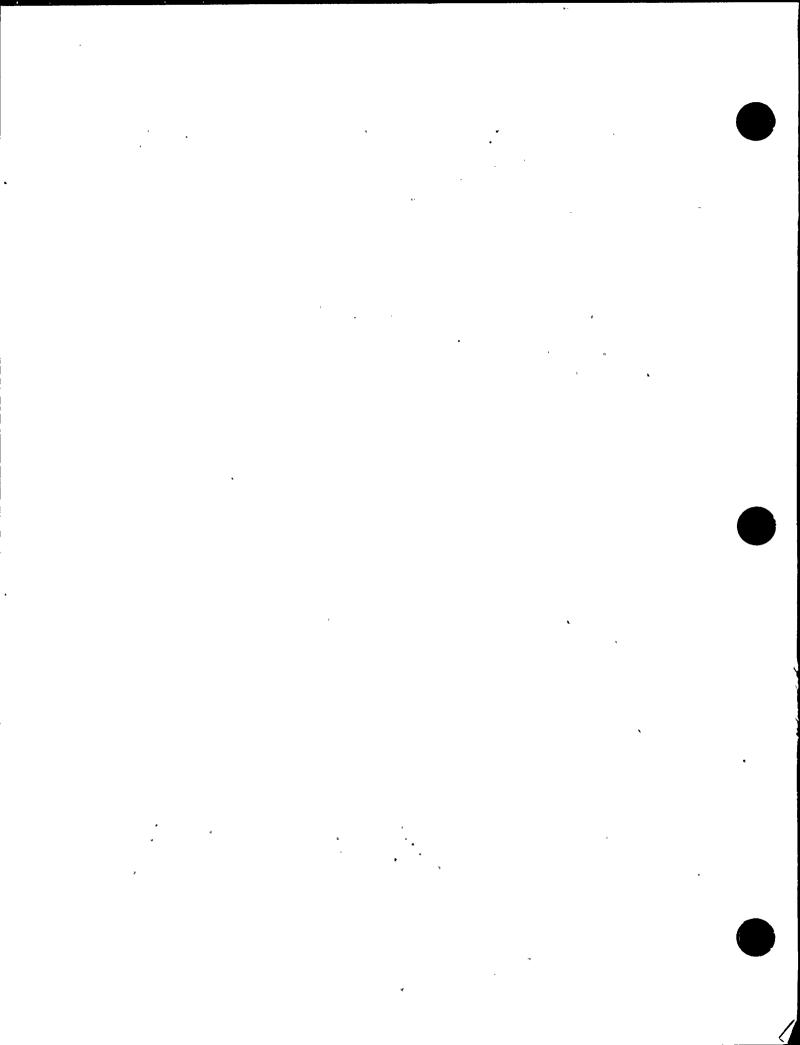
The DCP response, PGandE Resolution Sheet, IDVP File No. 8057, dated 830307, has been reviewed and found to address the Concern of the Open Item. The proposed modification to each of specific discrepancies identified, is adequate. The DCP also proposed (Ltr. DCVP-TES-869, dated 830308) that the generic concerns of the Open Item and their resolution be the subject of additional verification.

6. Recommendation:

PGandE to comply with the separation criteria established in FSAR section 8.3.3.

The Open Item is reclassified from an Error A/B to an Error A since modifications are required. The modifications made to correct the specific Errors identified by this EOI File will be verified.

7.	Potential Er	ror Report signed by	John Krechting	(SWEC) on 830311
8.	Signatures:	NA	Type Name/Organ	Date 830315 roved/Program Manager
		For Program Review	Committee Appr	roved/Program Manager



	OPEN ITEM REPORT File No.	8059
4	SWEC File Revision No.	3
1.	pace reported to race and MAD	n. April
2.	Scheduled for <u>TES</u> (Originator) Semimonthly Report No	
3.	Responsive to PG&E Technical Program: Task (if appl	icable)
4.	Prepared as a result of:	•
	a. □ QA Audit and Review Report of	
	b. 🛱 Field Inspection Deficiency	
	c. D 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, Control Room Ventilation, Pressurization System Control Panels and Raceways	

6. Description of Concern:

See EOI 8059, Rev.0

7. Significance of Concern: See EOI 8059, Rev.0

8. Recommendation:

SWEC to review DCP Resolution Sheet, IDVP File 8059, signed 830210 and DCP letter, Files 8055 and 8059 dated 830311, and provide recommendation for dispsition.

9. Signature: 225. Corp. (830401) (Originator/Organization)

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	ERROR REPORT	File No. 8059	
	Class: C A,B,C or D	File Revision No. 5 PG&E Task No.	
 2. 3. 	Dates: Reported to Program Review Committee Program Review Committee Action Reported to PG&E and Originator Scheduled for TES Semimonthly Report No. Apri Structure(s), system(s), or component(s) invol	N/A N/A 830407 T	
	AFW and CDVP system control panels and paceu		

AFW and CRVP system control panels and raceways.

4. Description of Error:

Color coding of some non-safety-related circuits affiliated with safety-related devices conflicts with the general description of the identification of electrical circuits in Section 8.3-3 of the FSAR.

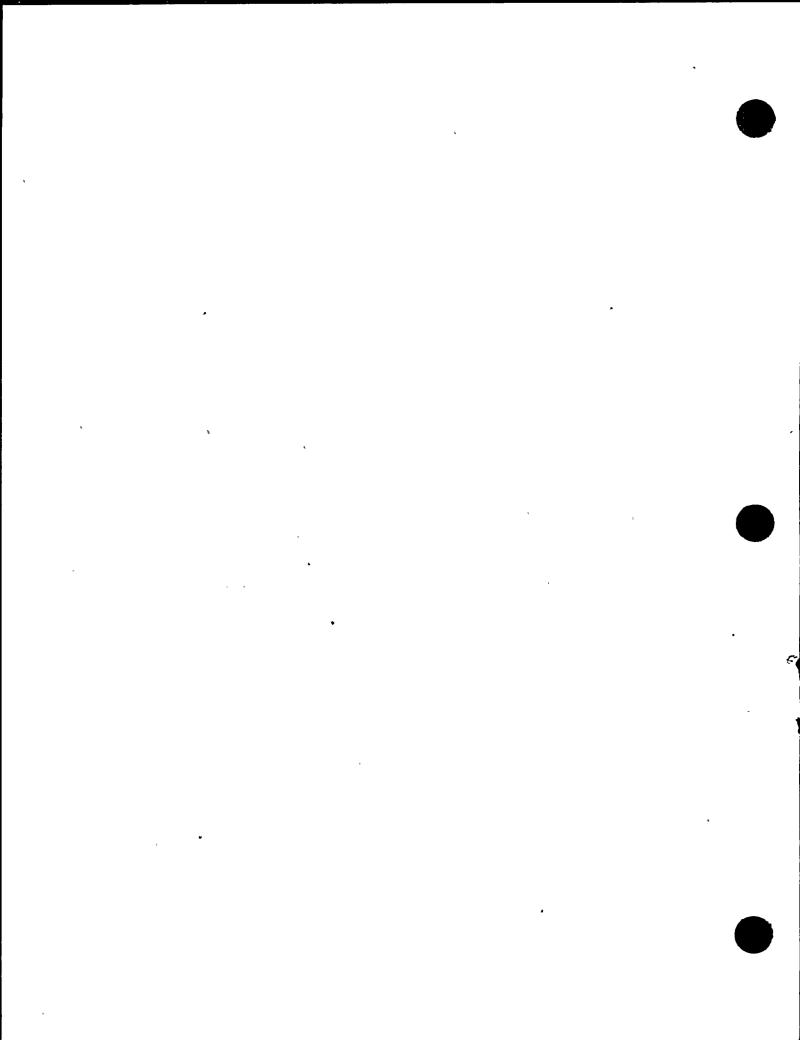
5. Significance of Error:

Safety-related circuits are not readily identifiable from non-safety related circuits. A unique identification system for safety-related circuits is necessary for proper installation and maintenance of such circuits.

6. Recommendation:

The DCP completion sheet IDVP-8059 signed 830325 provided additional wording for the FSAR Section 8.3-3 which describes the method of color coding of circuits affiliated with safety-related devices, trains, or circuits, and also an explanation that the color-coding of these circuits is not based solely on their electrical power source. The IDVP has determined that this modification to the FSAR will accurately reflect the as-built condition of the plant. This open item is classified as an Error C because the electrical system identification defined in FSAR Section 8.3-3 did not accurately reflect the actual installed control wiring for equipment in the CRVP and AFW systems.

7.	Potential Error Report signed by	John E. Krechting/SWEC _{on} 830404
8.	Signatures: N/A	Type Name/Organization/ Date 830407
	For Program Review Co -57-	Ommittee Approved/Program Manager



	File	No.	8059
File	Revision	No.	6

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 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%% Error. The PG&E document so informing the IDVP is DCP completion sheet, Rev.1, IDVP-8059 signed 830325.
2.	Signature: Signature: W. F. Cooper 830407 for Approved/Program Manager

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ERROR REPORT	File No.	8060
. Class:C	File Revision No.	5
A,B,C or D	PG&E Task No.	
Reported to Program Review Committee	NA	
Program Review Committee Action	NA	
Reported to PG&E and Originator	830315	
d for TES Semimonthly Report No. Apri	1,	

Scheduled for TES Semimor Structure(s), system(s), or component(s) involved:

Auxiliary Feedwater System Controls for limiting flow to a depressurized Steam Generator.

Description of Error:

Dates:

PGandE committed to provide a safety grade flow limiting control scheme to prevent the motor driven auxiliary feedpumps from running out on its pump curve in the event of a depressurized steam generator. The system as designed may result in the level control signal and the pressure control signal to command the valve to perform opposite functions simultaneously. The original setpoints for the runout control system could have adversely affected the AFW system operation due to runout control system interaction (pressure and level control loops linked to one valve) with normal function of the valves. This could have resulted in limiting AFW flow to less than the minimum acceptable flow under certain conditions. The effected electrohydraulic valves, as originally designed, and as shown on the instrument loop diagrams may also have been dynamically unstable due to the specified setpoints during certain accident conditions.

Significance of Error:

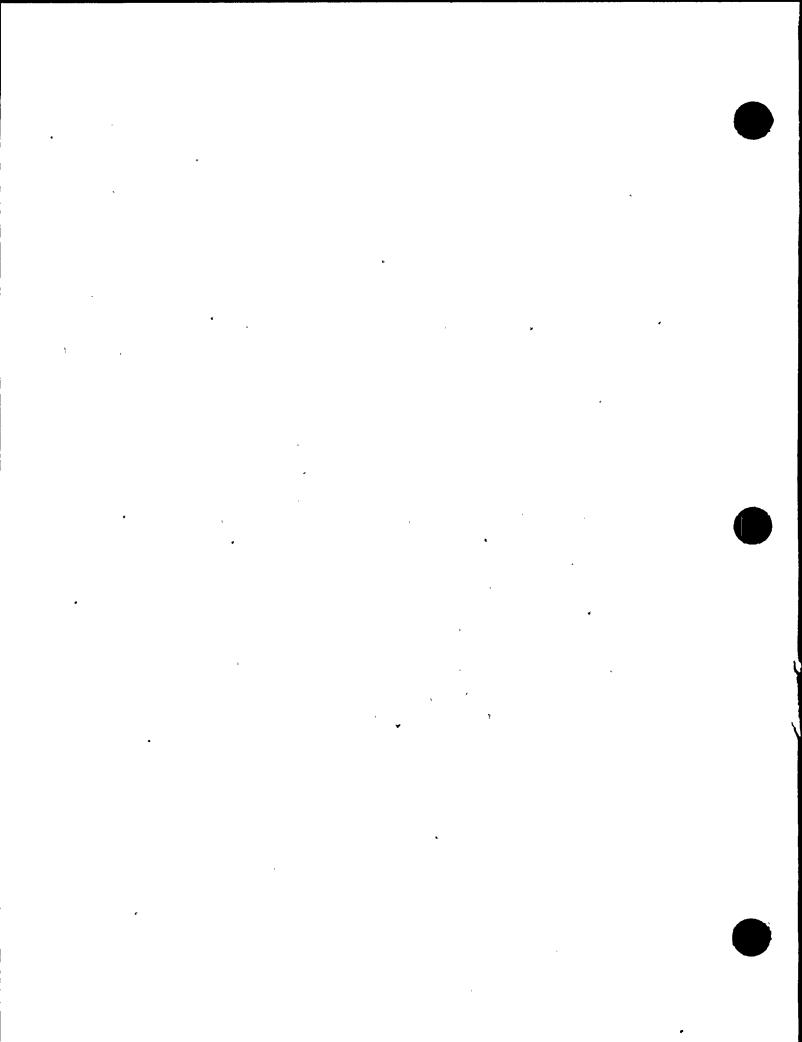
The runout control design could have limited auxiliary feedwater flow to less than minimum values under certain operating conditions. This adverse interaction or potential dynamic instability could have compromised the ability of the AFW system to perform its safety function.

6. Recommendation:

The DCP Completion sheets dated March 8, 1983 and March 10, 1983 and the DCP Resolution Sheet dated February 17, 1983 have been reviewed. The DCP has completed calculations determining revised runout control setpoints and has instructed the field to complete modifications. calculations were reviewed by the IDVP and were found to adequately address the concerns identified by this EOI file. The setpoint change also opened the proportional band of the runout control pressure controllers, decreasing the probability of dynamic instability. PGandE has further PGandE has further committed to verify system stability during AFW system startup testing.

Based on the above, the DCP response is acceptable. No generic concern exists due to the uniqueness of the runout control system and no further verification is required. This file will be closed.

7.	Potential Err	or Report signed by	John Krechting	(SWEC) o	n 830311
8.	Signatures:	NA	Type Name/0/3	frecholy	Date 830315
		For Program Review C	Committee Ap	proved/Prog	ram Manager



	, File	No.	8060
File	Revision	No.	6

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

l.	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 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
2.	Signature: Mestock for 830315 Approved/Program Manager WE Cooled

PROGRAM RESOLUTION REPORT

	File No	8061	
	File Revision No.	9	
	Resolution of an: Ø Open Item: ☐ Class Error Independent Design Verification Program Resolution is as: a. ☐ Closed Item b. Ø Deviation		
4.	C. D Open Item with future action by PG&E: Task Date Reported to PG&E 830315 Scheduled for TES Semimonthly Report No. April Resolution based on the following documentation:		

DCP Completion Package, IDVP File No. 8061, signed 830307.

6. Program Resolution is:

Acceptable based on referenced documentation which indicates the satisfactory capability of the safety related motors to start and accelerate to rated speeds with 80% rated voltage applied at the terminals.

File is reclassified as a Deviation to more accurately reflect the significance of concern, and on the basis that there is no mistake in analysis, design, or contruction.

This file will be closed.

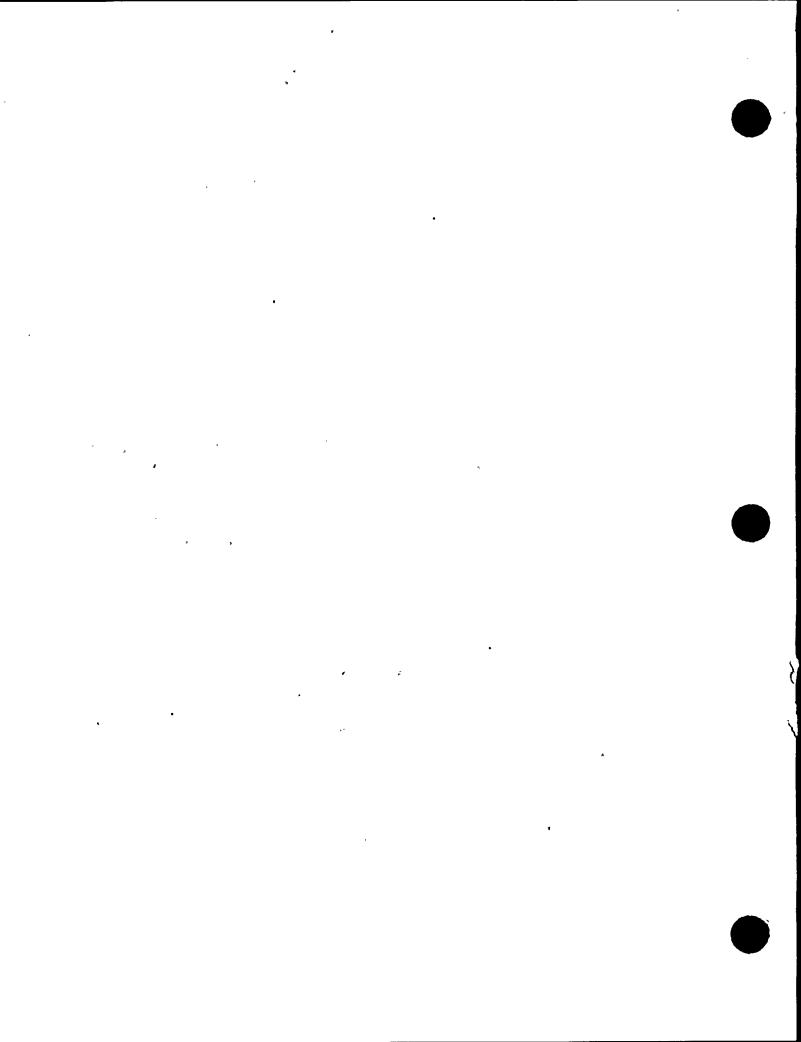
7.	Potential Program	Resolution	(0)(50)			
	Report signed by _	John Krechting	(SWEC)	on	830311	
8.	Signature:	Type Name/Org	ganization 830315 (Approved/Prog	Date ram Manage	er)

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		File NoOUDI
		File Revision No. 10
		IDVP COMPLETION REPORT
		•
The	DCNP	Independent Design Verification Program (IDVP) effort related to
the	above	e File Number is complete.
1.	The a	action which completes the IDVP effort is:
		File Revision No is a Program Resolution Report which
		recategorized this item as a Closed Item.
	X	The IDVP has been informed by PG&E that no physical modifications
•	لبنية	will be applied by PG&E in response to File Revision No. 9,
		which recategorized this item as XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
		THE TOTAL COURT OF THE COURT OF

2. Signature: 830315 Approved/Program Manager

DCP Completion Sheet, IDVP File No. 8061, signed 830307



	File	No.	8063
File	Revision	No.	8

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 , WMXXMXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
	DCP Completion Sheet, IDVP File 8063, signed 830321
2.	Signature: D.C. The land for 830407

W. E. COOPER

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.PROGRAM RESOLUTION REPORT File No. 8064
File Revision No. 5
1. Resolution of an: Ø Open Item: ☐ Class Error 2. Independent Design Verification Program Resolution is as: a. ☐ Closed Item b. Ø Deviation c. ☐ Open Item with future action by PG&E: Task 3. Date Reported to PG&E 830407 4. Scheduled for TES Semimonthly Report No. April 5. Resolution based on the following documentation:
PG&E Resolution Sheet, IDVP File No. 8064 Rev. 2 and PG&E Completion Sheet, IDVP File No. 8064 dated 830322:
 Moore Industries Potentiometer Transmitters, Tag POM 110, 111, 113 and 115 are not classified as Class 1E devices since they do not have a safety-related function.
 There is sufficient documentation of testing and analysis to assure that they will not fail in such a way as to jeopardize the safety-related circuit to which they are connected.
 No significant threat to the safety-related circuit arises from these devices.
6. Program Resolution is:
This file is classified as a deviation since the design documents improperly reported the classification of the POM's as safety-related. PG&E to revise Environmental Qualification files and Instrument Schematic 102036 to reflect Class II status for POM's.
This file will be closed.

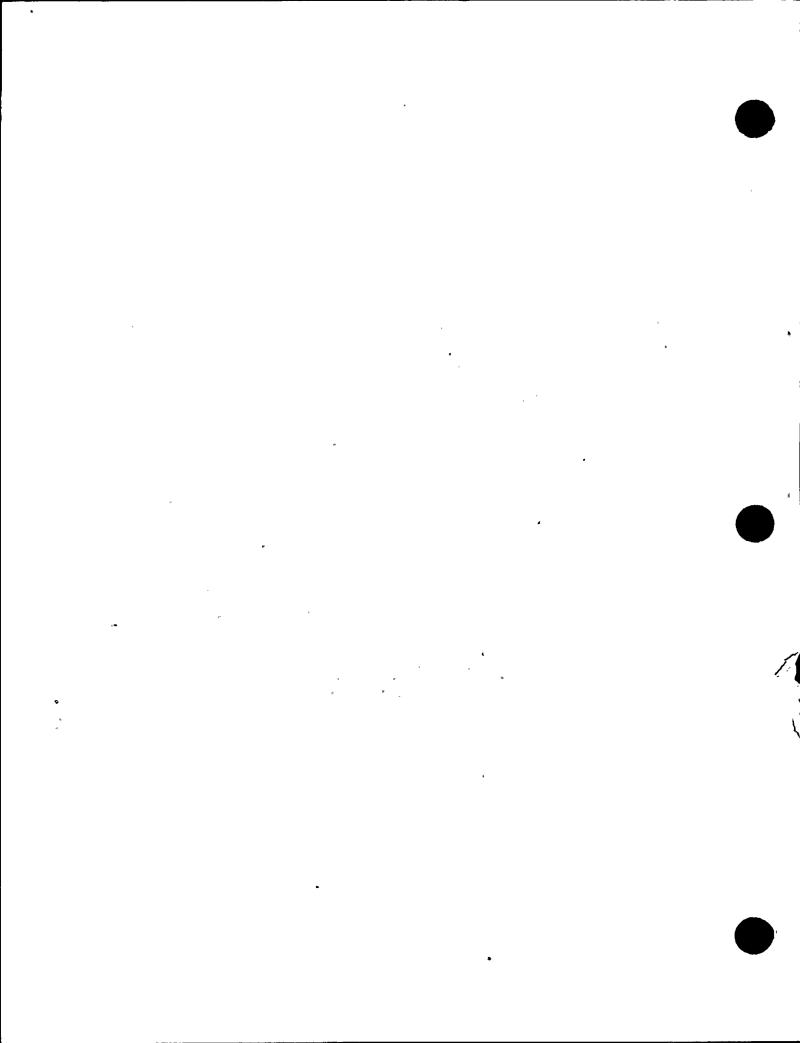
7. Potential Program Resolution
Report signed by John Krechting/SWEC on 830328

8. Signature: Definition Date

8. Signature: Signature: 6- 830407 (Approved/Program Manager)

W. F. Cooper

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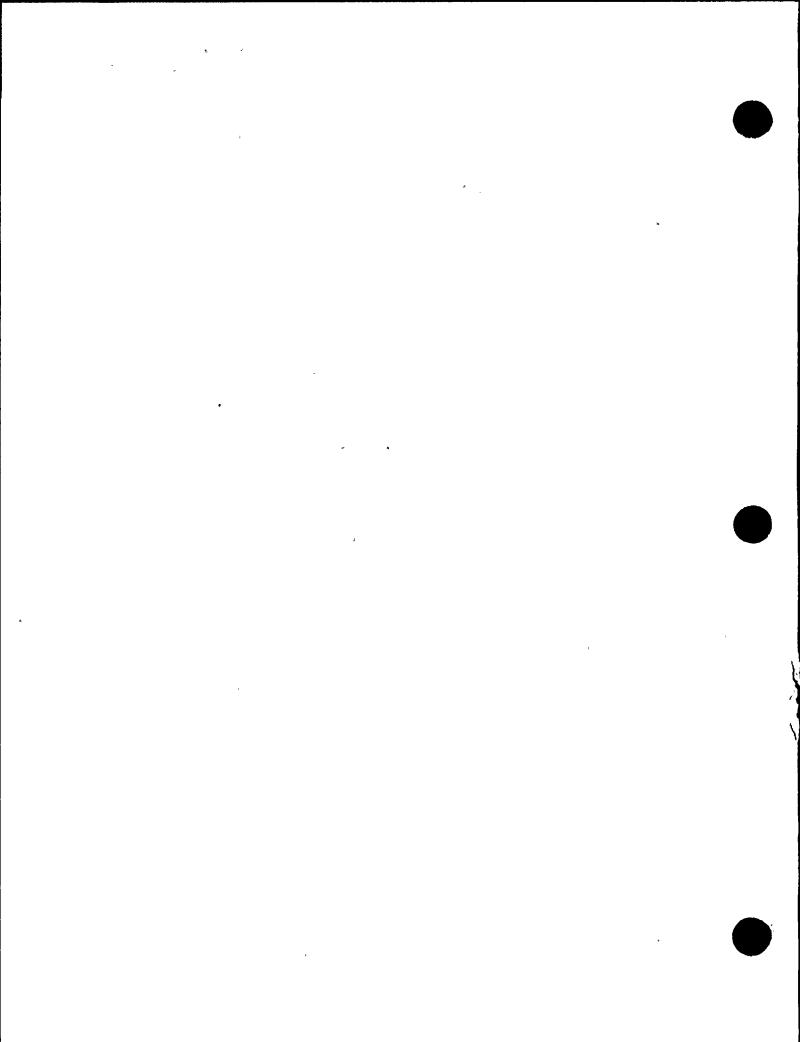


	File	No.	8064
File	Revision	No.	6

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 without a Deviation.@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
2.	Signature: D. Mahaly for 830407

Approved/Program Manager
W. F. CooPER





APPENDIX A LOOKAHEAD

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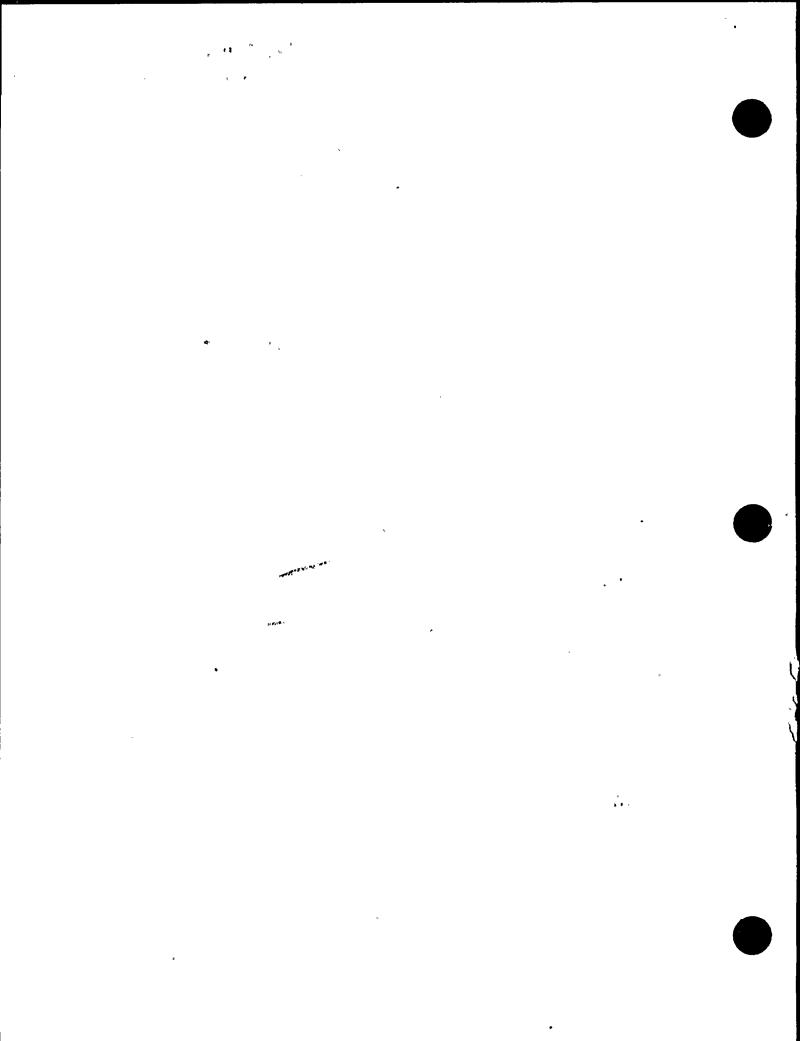




LOOKAHEAD REPORT

APRIL 8, 1983 THROUGH MAY 13, 1983

DATE(S)	LOCATION	SUBJECT	PARTICIPANTS
4/11/83	San Francisco	Technical Meeting - Piping	TES/RLCA/DCP
4/26-27/83	San Francisco	Status of All Structures	TES/RLCA/DCP



TELEDYNE ENGINEERING SERVICES

TABLE A-2

IDVP SCHEDULE RELATIVE TO

DCNPP-1 3-STEP LICENSING

5	IDVP REPORTS		
ACTIVITY	FUEL LOAD	LOW POWER	FULL POWER
Phase I	Status 4-30-83	Final 6-15-83	-
Phase II	Status 4-30-83	Status 5-15-83	Final 6-30-83
ITP-QA	Final 4-15-83	-	- ^
Construction QA	Final* 3-18-83	-	-
PG&E/ <u>W</u> Interface	Final* 3-23-83	-	- ; ;
Hosgri Spectra	Final 5-20-83	-	· -
Non-Hosgri Spectra	Final 5-20-83		-
Supplement for As-Built Verification	Status 6-15-83	Status 6-30-83	Status 6-30-83

^{*} Completed

