Power Reactor

Event#

47872

Site: DIABLO CANYON

Notification Date / Time: 04/29/2012 17:35

(EDT)

Unit: 1

Region: 4

State: CA

Event Date / Time: 04/29/2012 Last Modification: 04/29/2012 (PDT)

Reactor Type: [1] W-4-LP,[2] W-4-LP

Containment Type: DRY AMB DRY AMB

Notifications: DAVID PROULX

NRC Notified by: DENNIS PETERSEN

R4DO

**Emergency Class: NON EMERGENCY** 

**HQ Ops Officer:** DONALD NORWOOD

PART 21 GRP BY EMAIL

10 CFR Section:

21.21(d)(3)(i)

**DEFECTS AND NONCOMPLIANCE** 

Unit	Scram Code	RX Crit	Init Power	Initial RX Mode	Curr Power	Current RX Mode
1	N	No	0	Refueling	0	Refueling

#### PART 21 REPORT - CONTROLLERS DID NOT MEET EMI / RFI GUIDELINES

"This report constitutes a 10 CFR Part 21 notification. On March 23, 2012, Scientech (a business unit of Curtis Wright Flow Control), sent a 10 CFR Part 21 report (Letter Number 12-09-BB) to Pacific Gas & Electric Company. Diablo Canyon Nuclear Plant (DCPP) entered this report into its corrective action program on April 23, 2012. This Part 21 report identified that eight AMS286 and AMS287 hand controllers supplied to DCPP had a deviation from the purchase specification. DCPP specified the controllers to be qualified to meet electromagnetic interference (EMI) / radio frequency interference (RFI) emissions and susceptibility in accordance with NRC Regulatory Guide 1.180, Rev. 1. Contrary to this requirement, Scientech did not perform the EMI / RFI testing on the AMS286 controllers shipped to DCPP with a Certificate of Conformance to DCPP's specification. Scientech tested the AMS287 controllers, which failed some of the required testing, but were shipped to DCPP with a Certificate of Conformance nonetheless. DCPP accepted the controllers based on the Certificates of Conformance, but did not install them. Following acceptance of the controllers, DCPP identified the nonconformance with its specification, and had another vendor modify the controllers to subsequently pass required testing.

"DCPP determined the deviation could have potentially created a substantial safety hazard if the controllers were installed at DCPP. The controllers were intended to control auxiliary feedwater from the Unit 1 control room and the hot shutdown panel as part of an upcoming process control system modification. Following a postulated fire in the control room, plant shutdown would be managed from the hot shutdown panel. In this instance, radios would be used to communicate with operators at the panel. The controllers would be susceptible to EMI/RFI interference and could potentially affect the operators' ability the safely shut down the plant and maintain it in a safe shutdown condition. DCPP notified Scientech of this conclusion on 4/27/12."

The licensee notified the NRC Resident Inspector.



Power Reactor Event # 47872

### HOO Hoc

From: Sent: Padovan, Mark [MLPY@pge.com] Sunday, April 29, 2012 5:58 PM

To:

HOO Hoc

Cc: Subject: Baldwin, Thomas (DCPP); Petersen, Dennis Diablo Canyon Part 21 Report - EN# 47872

Attachments:

NRC Form 361 - 50 72 Report Scientech Flow Controllers.pdf; Scientech Part 21 Report.pdf

#### HOO (Donald),

Here is a .pdf copy of the Part 21 report (EN# 47872) we telephoned in from Diablo Canyon Nuclear Power Plant. As we discussed, I'm also attaching the Part 21 report that Diablo Canyon received from Scientech. Please let me know if you have any questions.

## L. Mark Padovan

Regulatory Services Supervisor Diablo Canyon Power Plant 104/5/22A (805) 545-4540 (w) mark.padovan@pge.com

PAGE 1 OF 2 U.S. NUCLEAR REGULATORY COMMISSION NRC FORM 361 **OPERATIONS CENTER** (12-2000) **REACTOR PLANT** EN # 47872 **EVENT NOTIFICATION WORKSHEET** NRC OPERATION TELEPHONE NUMBER: PRIMARY -- 301-816-5100 or 800-532-3469\*, BACKUPS -- [1st] 301-951-0550 or 800-449-3694\*, \*Licensees who maintain their own ETS are provided these telephone numbers. [2nd] 301-415-0550 and [3rd] 301-415-0553 NOTIFICATION TIME FACILITY OR ORGANIZATION LINIT NAME OF CALLER CALL BACK # 1735 EDT Diablo Canyon Power Plant Dennis Petersen (805) 545-4022 1 POWER/MODE BEFORE EVENT TIME & ZONE EVENT DATE POWER/MODE AFTER 04/29/2012 N/A N/A AINA **EVENT CLASSIFICATIONS** 1-Hr. Non-Emergency 10 CFR 50.72(b)(1) (v)(A) Safe S/D Capability AINB GENERAL EMERGENCY **GEN/AAEC** TS Deviation (v)(B) RHR Capability SITE AREA EMERGENCY SIT/AAEC AINC 4-Hr. Non-Emergency 10 CFR 50.72(b)(2) (v)(C) Control of Rad Release ALERT ALE/AAEC (v)(D) Accident Mitigation AIND TS Required S/D ASHL UNUSUAL EVENT UNU/AAEC ACCS AMED ECCS Discharge to RCS (xii) Offsite Medical (iv)(A) 50.72 NON-EMERGENCY ACOM RPS Actuation (scram) ARPS (see next columns) (iv)(B) (xiii) Loss Comm/Asmt/Resp PHYSICAL SECURITY (73.71) Offsite Notification APRE  $\alpha$ (xi) 60-Day Optional 10 CFR 50.73(a)(1) MATERIAL/EXPOSURE Invalid Specified System Actuation AINV 8-Hr. Non-Emergency 10 CFR 50.72(b)(3) FITNESS FOR DUTY неп Other Unspecified Requirement (Identify) (ii)(A) Degraded Condition **ADEG** OTHER UNSPECIFIED REQMT. AUNA (see last column) (ii)(B) Unanalyzed Condition NONR INFORMATION ONLY NNF (iv)(A) Specified System Actuation AĖSF NONR DESCRIPTION Include: Systems affected, actuations and their initiating signals, causes, effect of event on plant, actions taken or planned, etc. (Continue on back) This report constitutes a 10 CFR Part 21 notification. On March 23, 2012, Scientech (a business unit of Curtis Wright Flow Control), sent a 10 CFR Part 21 report (Letter Number 12-09-BB) to Pacific Gas & Electric Company. Diablo Canyon Nuclear Plant (DCPP) entered this report into its corrective action program on April 23, 2012. This Part 21 report identified that eight AMS286 and AMS287 hand controllers supplied to DCPP had a deviation from the purchase specification. DCPP specified the controllers to be qualified to meet electromagnetic interference (EMI) / radio frequency interference (RFI) emissions and susceptibility in accordance with NRC Regulatory Guide 1,180, Rev. 1. Contrary to this requirement, Scientech did not perform the EMI / RFI testing on the AMS286 controllers shipped to DCPP with a Certificate of Conformance to DCPP's specification. Scientech tested the AMS287 controllers, which failed some of the required testing, but were shipped to DCPP with a Certificate of Conformance nonetheless. DCPP accepted the controllers based on the Certificates of Conformance, but did not install them. Following acceptance of the controllers, DCPP identified the nonconformance with its specification, and had another vendor modify the controllers to subsequently pass required testing. DCPP determined the deviation could have potentially created a substantial safety hazard if the controllers were installed at DCPP. The controllers were intended to control auxiliary feedwater from the Unit 1 control room and the hot shutdown panel as part of an upcoming process control system modification. Following a postulated fire in the control room, plant shutdown would be managed from the hot shutdown panel. In this instance, radios would be used to communicate with operators at the panel. The controllers would be susceptible to EMI/RFI interference and could potentially affect the operators' ability the safety shut down the plant and maintain it in a safe shutdown condition. DCPP notified Scientech of this conclusion on 4/27/12.

NOTIFICATIONS	YES	NO	WILL BE	ANYTHING UNUSUAL OR	VEC (Evalaia abava)	[7 NO
NRC RESIDENT	✓	<u> </u>		NOT UNDERSTOOD?	YES (Explain above)	✓ NO
STATE(s)		✓		DID ALL SYSTEMS	✓ YES	D NO (Fundain about)
LOCAL		<b>✓</b>		FUNCTION AS REQUIRED?	<b>✓</b> YES	NO (Explain above)
OTHER GOV AGENCIES		<b>/</b>		MODE OF OPERATION	ESTIMATED	ADDITIONAL INFO ON BACK
MEDIA/PRESS RELEASE		✓		UNTIL CORRECTED:	RESTART DATE:	YES NO

F	ADIOLOGICAL RELEA										in eve	i i	
L	LIQUID RELEASE	GAS	EOUS RELEASE	UNPL	ANNED RELEASE	PL/	ANNED	RELEASE	4	ONGOING		TERM	MINATED
	MONITORED	UNM	ONITORED	OFFS	ITE RELEASE	Т. 8	S. EXCE	EDED	F	RM ALARN	1S	ARE	AS EVACUATED
	PERSONNEL EXPOS	ED OR C	CONTAMINATED	OFFS	ITE PROTECTIVE	ACTION	S RECO	MMENDED	1	State releas	e path in	description	
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H	loble Con		Release Rate (	CI/Sec)	% T. S. LIMIT		GUIDE	Total Ac	tivit	ty (CI)	% T.	S. LIMIT	HOO GUIDE
-	loble Gas				<b>}</b>	0.1 C						_	1000 Ci
_	odine articulate				<del> </del>	10 uC	Ci/sec						0.01 Ci 1 mCi
	iquid (excluding tritic	ım and	<del></del>										
٥	issolved noble gases)						Ci/min						0.1 Ci
_	iquid (tritium)					0.2 C	i/min						5 Ci
L	otal Activity						_		_				
		'	PLANT STACK	cor	NDENSER/AIR EJE	CTOR	MAIN	STEAM LINI	ΕÌ	SG BL	owdo	WN	OTHER
R/	AD MONITOR READING	GS											
AL	ARM SETPOINTS												
%	T. S. LIMIT (if applica	able)			,								
ŖŒ	S OR SG TUBE LEAK	S: CHE	CK OR FILL IN APP	LICABLE	ITEMS: (specific	details/e	xplanati	ons should l	be c	overed in	event	descriptio	on)
_	CATION OF THE LEAK (e.g.												
LE	AK RATE		UNITS: gpm/gpd	T. S. LIN	MITS		SUDDEN	OR LONG-TERM	/ DE	VELOPMENT			<del></del>
LΕ	AK START DATE		TIME			MARY	I			Si	ECONDA	RY	
L				AND U	wio;								
LIS	T OF SAFETY RELATED EQ	UIPMENT N	NOT OPERATIONAL										
			<del></del>										
				EV	ENT DESCRIPTION (Co	ntinued fr	om front)						
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Instrumentation & Controls Division 200 S. Woodruff Ave. Idaho Falls, ID 83401 (208) 529-1000

March 23, 2012

Letter Number: 12-09-BB

PG&E – Diablo Canyon Power Plant C/O The PG&E Procurement Assessment Supervisor @ DCPP PO Box 56 Avila Beach, CA 93424

Mailstop 115/2

SUBJECT: Evaluation of Deviation for 10 CFR Part 21 Reportability

Dear PG&E Procurement Assessment Supervisor:

Scientech opened 10 CFR Part 21 Evaluation 21-12-03 (attached) on January 23, 2012, and has concluded that our organization is unable to determine if the deviation constitutes a defect as defined in 10 CFR Part 21. This letter in conjunction with a letter to the Quality Verification Department Manager, formally forwards our Part 21 investigation to Diablo Canyon Power Plant for further evaluation.

Please feel free to contact the Scientech Engineering Manager Jim Saunders, at (208)524-9245, with any technical questions you may have regarding this issue, or Vince Chermak, the Quality Assurance Manager for any quality related questions. You may contact me directly, using the information provided below, for any other issues.

Sincerely,

Brian Braithwaite
Applications Engineer

**I&C** Division

Scientech, a business unit of Curtiss-Wright Flow Control Company

Office (208) 524-9337 | Fax (208) 524-9238

Attachment: 10CFR21 Evaluation 21-12-03 Rev. 0

NF 15.1-1

Revision 1

Page 1 of 2

## 10CFR21 Evaluation No. 21-12-03 Rev. 0

<u>Background</u>
The I&C division of Scientech, a business unit of Curtiss Wright Flow Control Services Corporation, provides safety related instrumentation to commercial nuclear power plants for use in safety related applications.

<u> </u>	
Problem Reported On: 02/02/2012	Problem Documented In: CAR 12-010,
Description of Item: (name, manf, model, part no, serial	NCR 12N-013, NCR 12N-014
AMS826 P/N: NUS-A228PA-1 Rev. 0 S/N: 1101685-110	
	71V171, \$1V171U, \$1V171U
AMS827 P/N: NUS-A276PA-1, Rev. 1101021-1101032	Postions (CMI/DEF Tosting) on Ented in automorphism
Description of Problem: The modules did not meet specifications document 10083-J-NPG, Rev. 4.	realisms (Cavid Ref. resting) as instea in customer supplied
10CFR21: Deviation means a departure from the technic	ral requirements included in a procurement document, or
specified in early site permit information, a standard des	
•	
Is the problem a <u>deviation</u> ? (include justification for ans	wer) Yes 🖾 No 🗌
Justification: Modules did not meet specifications.	
	ONCLUSION SECTION
IF YES, C  Has an item with the <u>deviation</u> been supplied to a plant a	ONTINUE s a safety-related item?  Yes ⋈ No □
rias an item with the deviation occur supplied to a plant a	is a safety-related field: 108 🖂 100 📋
	ONCLUSION SECTION
IF YES, INCLUDE PLANT INF	ORMATION AND CONTINUE
Plants supplied with item: Diablo Canyon	
10CFR21: <u>Defect</u> means:	
(1) A deviation in a basic component delivered to a purc	
regulations in this part if, on the basis of an evaluation, I (2) The installation, use, or operation of a basic compon	
(2) The instattation, use, or operation of a basic compon (3) A deviation in a portion of a facility subject to the ea	
design approval, construction permit, combined license of	or manufacturing licensing requirements of part 50 or
part 52 of this chapter, provided the deviation could, on	the basis of an evaluation, create a substantial safety
hazard and the portion of the facility containing the devi	
(4) A condition or circumstance involving a basic compo limit, as defined in the technical specifications of a licen	
timu, as aejinea in the technical specifications of a ticen.   chapter; or	se for operation tasued under pure 50 or pure 52 of this
(5) An error, omission or other circumstance in a design	
basis of an evaluation, could create a substantial safety	hazard.
10CFR21: <u>Substantial safety hazard</u> means a loss of saf	ety function to the extent that there is a major reduction
in the degree of protection provided to public health and	
approved or regulated by the NRC	
Can Scientech determine if the deviation is a defect?	Yes 🗌 No 🛛
IFNO PROCEDITO	CONCLUSION SECTION
	ONTINUE
Is the deviation a defect? (include justification for answ	

1			Т
CURTISS			1
WRIGHT			1
Flow Contro	/ Con	npan	у.
St	115%	111	让

# NF 15.1-1

Revision 1

Page 2 of 2

10CFR21 Evaluation No. 21-12-03 Rev. 0

Justification	n:	
ONCLUSI	<u>ÔN</u>	
- Ther	re is no deviation. No report is required.	
- Ther requ	and the second s	ny saféty-related item delivered to a plant. No report is
- The	re is a deviation, but it does not constitute	a defect. No report is required.
- Ther	re is a deviation, but Scientech cannot det	ermine if it is a defect. Forward to plant for evaluation.
- Then	re is a defect. Report to the NRC per 100	CFR21,
repared:	Signature (Date)	Evaluated: Signature Date
Print Name: Title;	Vince Chermak QA Manager	Print Name : Jim Saunders Title: Engineering Manager
pproved:	Signature / Date	·
rint Name: Title:	Bob Queenan Division Manager	Approval required for Category 4 and 5 only.