

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:9409150071 DOC.DATE: 94/09/07 NOTARIZED: NO DOCKET #

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50-311	Salem Nuclear Generating Station, Unit 2, Public Serv	05000311

AUTH.NAME	AUTHOR AFFILIATION
KINDEN, T.J.	C&D Charter Power Systems, Inc. (formerly C&D Power Systems
RECIP.NAME	RECIPIENT AFFILIATION
	NRC - No Detailed Affiliation Given

SUBJECT: Part 21 rept re defect in latching mechanism of Potter & Brumfield relay on C&D high voltage shut down alarm assembly printed circuit boards. Pull test on relay reset button incorporated into receiving insp procedures.

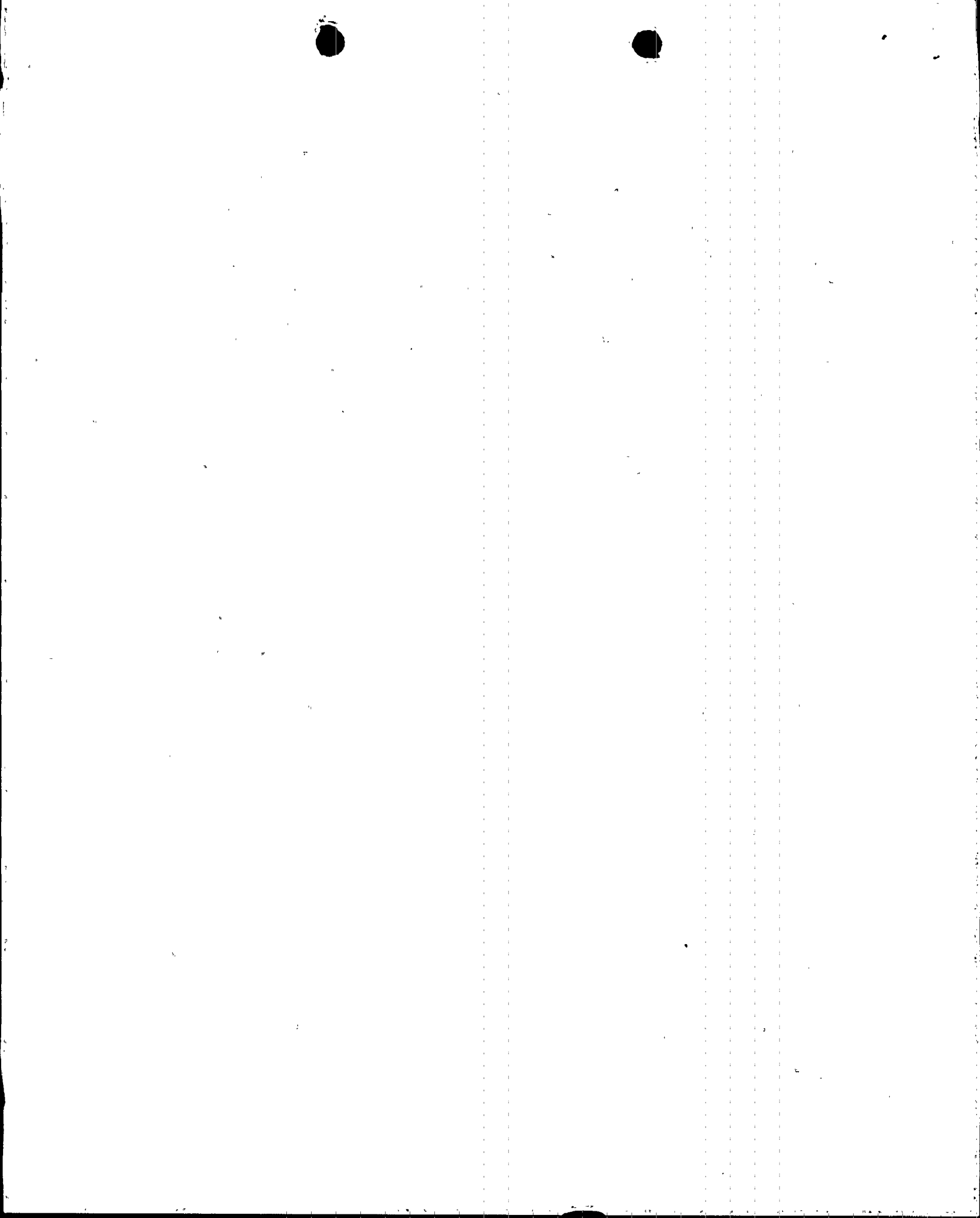
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 TITLE: Part 21 Rept (50 DKT)

NOTES: License Exp date in accordance with 10CFR2,2.109	05000206
Application for permit renewal filed.	05000425
	05000352
Application for permit renewal filed.	05000353

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WEBB, M	1 1	JABBOUR, K	1 1
HOOD, D	1 1	SIEGEL, B	1 1
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DORMAN, D	1 1	RINALDI, F	1 1
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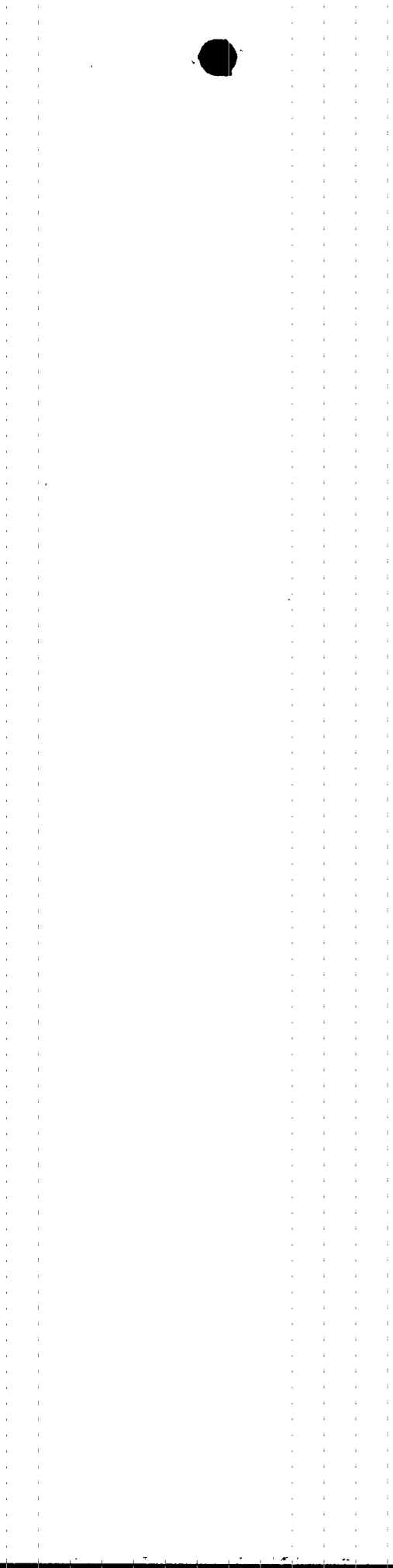
INTERNAL: AEOD/SPD/RAB	1 1	NRR/DRIL/RVIB	1 1
<u>REG FILE</u> 01	1 1	RES/DSIR/EIB	1 1
RGNI	1 1	RGN2	1 1
RGN3	1 1	RGN4	1 1
RGN5	1 1	SECY/PDR	1 1
EXTERNAL: INPO RECORD CTR	1 1	NOAC SILVER, E	1 1
NRC PDR	1 1		

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NOTES:

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LTTR 33 ENCL 33





Event #27954

CHARTER POWER SYSTEMS

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Plymouth Meeting, PA 19462
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TO	<i>NRC Operations Center</i>
FROM	<i>C&D QA</i>
DATE	<i>9-7-94</i>
TIME	<i>10:30 AM</i>
NO. OF PAGES	<i>10</i>

September 7, 1994

NRC Operations Center
Fax 301-492-8187

Dear Sirs;

Based upon field complaints from Southern California Edison on non 1E safety related chargers, we discovered a defect in the latching mechanism of Potter and Brumfield R10-E3286-2 relays (C&D Part Number JR-461-E) which may effect 1E safety related chargers in the field. The relay is found on C&D High Voltage Shut Down Alarm Assembly Printed Circuit Boards (MBC-2920-E) used in C&D ARR Chargers.

The failure has been identified as a dimensional non-conformance in the latching mechanism of the relay. The defect is limited to two date code lots of material identified as lots 9108 and 9242 on the relay. The lot code is located on the front of the relay. Failure of the relay may cause an apparent High Voltage Shut Down of the Charger terminating charging of the battery system until such time as the relay is reset, or it may result in a false alarm without shutdown of the charger. The battery itself will be unaffected unless the shutdown condition is not corrected for a sufficient period of time for the batteries to become discharged. For this reason we do not believe that the failure mode poses an imminent danger.

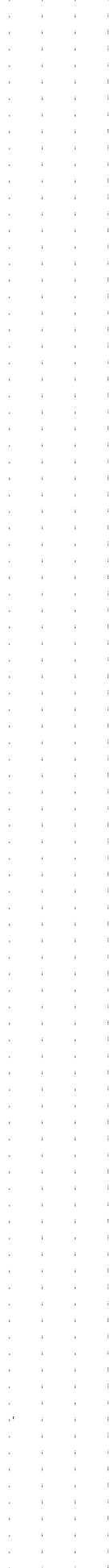
We have identified a time period during which these boards were available, but are not able to trace which boards these particular lots of relays were used on. Lot 9108 was manufactured by Potter & Brumfield on February 22, 1991. Lot 9242 was manufactured by Potter & Brumfield on October 30, 1992. All chargers which use this relay or replacement boards that were sold from February 22, 1991 until the present have been identified and the vendors are listed in attachment A to this report. Each vendor will be notified of the possible hazard and the connection to the 10CFR21 report of this event. They will be advised to check the HVSD Printed Circuit Board in their charger or stock to assure that the relay on the board is not from one of the suspect lots. Any boards which contain relays from the suspect lot may be returned to C&D for testing and repair or replacement.

Means were identified to distinguish the 'good' relays from the 'bad' relays by means of a pull test on the relay reset button. This test has been incorporated into the receiving inspection procedures of both ourselves and our subcontractor for safety related boards. Using this test method, boards were selected for testing by Nuclear Logistics, Inc. under seismic stresses. Results of the testing is attached. These tests demonstrated that the 'pull test' was sufficient to distinguish 'good' boards from 'bad' for this defect mode and that the 'good' boards were able to withstand the seismic test without failure.

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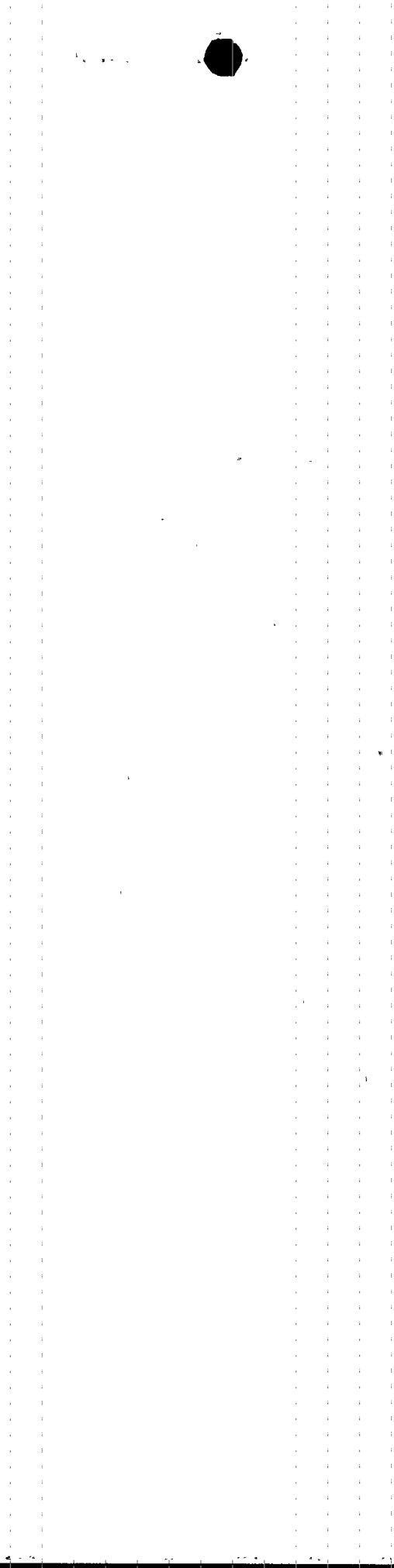
Sincerely,



T.J. Kinden
Director Quality Assurance
C&D Charter Power Systems, Inc..

attachments List of effected utilities
 NLI Report #TR023084-1; Approval Seismic Testing of a High Voltage Shutdown Relay

cc Product Safety Committee, G. Walker, D. Muhlrad, J. Boston
 file: QA6692
 file: Product Safety Committee



List of Effected Utilities

<u>Operating Company</u>	<u>Utility</u>	<u>Nuclear Plant</u>
Southern Nuclear Service Co.	Georgia Power Co.	Vogtle Hatch
	Alabama Power Co.	Farley
Entergy Operations, Inc.	Mississippi Power and Light La. Power and Light	Grand Gulf Waterford 3
Comision Federal de Electricidad	(same)	Laguna Verde
Taiwan Power Co.	(same)	Chin Shan Kuosheng Maanshan
Tennessee Valley Authority	(same)	Browns Ferry
Vermont Yankee Nuc. Power Corp.	(same)	Vermont Yankee
PECO Energy, Inc.	(same)	Limerick
Nebraska Public Power District	(same)	Cooper
So. California Edison Co.	(same)	San Onofre
Public Service Electric & Gas Co.	(same)	Salem
MKW Power Systems, Inc.	(unknown)	(unknown)



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