

# CATEGORY 1

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 FACIL: 50-244 Robert Emmet Ginna Nuclear Plant, Unit 1, Rochester G      05000244  
 AUTH. NAME      AUTHOR AFFILIATION  
 MECREDY, R.C.      Rochester Gas & Electric Corp.  
 RECIP. NAME      RECIPIENT AFFILIATION  
                          NRC - No Detailed Affiliation Given

SUBJECT: Part 21 rept re W DB-75 circuit breakers w/missing Tripper  
 Bar Tabs. Caused by intermittent failure to close in DB-75  
 "B" EDG supply circuit breaker to BUS #16. Licensee Nuclear  
 Engineering personnel are performing vendor document review.

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GINNA STATION.

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ROCHESTER GAS AND ELECTRIC CORPORATION - 89 EAST AVENUE, ROCHESTER, 'N.Y.' 14649-0001  
AREA CODE 716-546-2700

ROBERT C. MECREDY  
Vice President  
Nuclear Operations



August 12, 1998

U.S. Nuclear Regulatory Commission  
Operations Center  
Facsimile Number 301-816-5151  
Telephone Number 301-816-5100

Subject: Initial Notification of 10 CFR Part 21 Defect  
R.E. Ginna Nuclear Power Plant  
Docket No. 50-244

In accordance with 10 CFR Part 21, Reporting of Defects and Noncompliance, Section 21 (d) (3) (i) , which requires "Initial notification by facsimile", the enclosed initial notification is provided. Written notification, in accordance with 10 CFR Part 21, Section 21 (d) (3) (ii) , will be provided by September 11, 1998.

Very truly yours,

Robert C. Mecredy

Enclosures

Terry A. White  
Manager, Operations

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S PDR



## 10CFR21 INITIAL FACSIMILE NOTIFICATION

## I. NAME AND ADDRESS OF THE INDIVIDUAL INFORMING THE COMMISSION:

NAME: Robert C. Mecredy  
Vice President Nuclear Operations Group  
ADDRESS: Rochester Gas & Electric Corporation  
89 East Avenue  
Rochester, New York 14649

## II. IDENTIFICATION OF THE FACILITY, THE ACTIVITY, OR THE BASIC COMPONENT SUPPLIED FOR SUCH FACILITY WHICH FAILS TO COMPLY OR CONTAINS A DEFECT:

The facility is the R.E. Ginna Nuclear Power Plant. The basic component is a Westinghouse DB-75 circuit breaker. This component was installed in a Class 1E Safety Related Bus. The breaker is the 'B' Diesel Generator Supply breaker to Bus 16 (Safety Related Bus).

## III. IDENTIFICATION OF THE FIRM CONSTRUCTING THE FACILITY OR SUPPLYING THE BASIC COMPONENT WHICH FAILS TO COMPLY OR CONTAINS A DEFECT:

The breaker is manufactured by:  
Westinghouse Electric Corporation  
Nuclear Services Integrated Division.  
Box 78  
Pittsburgh, PA 15230-0078

## IV. NATURE OF THE DEFECT OR FAILURE TO COMPLY AND THE SAFETY HAZARD WHICH IS CREATED OR COULD BE CREATED BY SUCH DEFECT OR FAILURE TO COMPLY:

The DB-75 breaker was retrofitted with an AMPTECTOR solid state trip unit per Westinghouse instruction I.B. 33-850-6 that instructed the technician to remove all tripper bar tabs from the tripper bar. Subsequently the instruction bulletin was revised to specifically leave the center tripper bar tab installed. There were no notifications to the plant to re-install the center tripper bar tabs on previously modified breakers. The absence of the center tripper bar tab allowed two tripper bar bushings to fall from their housing and is believed to, over time, bend the tripper bar so that it would not fully reset. The failure of the tripper bar to fully reset caused intermittent failure to close on the DB-75 'B' Diesel generator supply breaker to Safety Related Bus 16. With the identified deficiency in the 'B' Diesel Generator supply breaker it is possible that a single failure could render both safety trains incapable of performing their safety functions (buses 14 and 16). This deficiency constitutes a substantial safety hazard.



V. THE DATE ON WHICH THE INFORMATION OF SUCH DEFECT OR FAILURE TO COMPLY WAS OBTAINED:

The information was obtained on July 27, 1998 after discussions with Westinghouse representatives. The missing tripper bar tabs were discovered March 25, 1998 during troubleshooting of the latest failure. The method of notification by the vendor was not determined until July 27, 1998.

VI. IN THE CASE OF A BASIC COMPONENT WHICH CONTAINS A DEFECT OR FAILS TO COMPLY, THE NUMBER AND LOCATION OF ALL SUCH COMPONENTS IN USE AT, SUPPLIED FOR, OR BEING SUPPLIED FOR GINNA STATION:

There are six Westinghouse DB-75 breakers installed at Ginna in safeguards busses 14 and 16. There is also one Safety Related spare breaker. The Bus 14 and 16 Safety Related bus feeds and the two (2) bus tie breakers between Buses 14 and 16 were correctly modified per the revised instructions. The original Spare DB-75 breaker was also correctly modified prior to being installed into the 'A' Diesel Generator supply breaker position.

Between 3/85 and 2/88 the 'B' Diesel Generator supply breaker was installed with the incorrect modification. In 2/88 the DB-75 breaker installed in the 'A' Diesel Generator supply breaker on Bus 14, was incorrectly modified in the same manner as the 'B' Diesel Generator supply breaker. Between 2/88 and 5/96 both Diesel Generator output breakers to Bus 14 and 16 were installed with incorrect modifications. In 5/96 the spare DB-75 breaker, 96-04, was installed in the 'A' Diesel Generator supply breaker position. Breaker 96-04 was modified correctly per the current revision of the installation instructions. Although the potential for failure existed, the breakers were tested with regular surveillance tests to prove operability and the failure mechanism is of the nature that degrades over time. The missing tripper bar tab would not immediately fail the breaker upon removal.





- VII. THE CORRECTIVE ACTION WHICH HAS BEEN, IS BEING, OR WILL BE TAKEN; THE NAME OF THE INDIVIDUAL OR ORGANIZATION RESPONSIBLE FOR THE ACTION; AND THE LENGTH OF TIME THAT HAS BEEN OR WILL BE TAKEN TO COMPLETE THE ACTION:

All DB-75 breakers were inspected at the point the missing center tripper bar tab was discovered. Maintenance personnel installed center tripper bar tabs on the 'B' Diesel Generator supply breaker and Spare breaker, previously installed in the 'A' Diesel Generator supply breaker position. Nuclear engineering is performing a vendor document review which is in its final stages. The review will verify all breakers are properly configured per applicable vendor documentation. The results of the review is being incorporated into maintenance procedures. All corrective actions are scheduled to be completed by December 31, 1998.

- VIII. ANY ADVICE RELATED TO THE DEFECT OR FAILURE TO COMPLY ABOUT THE FACILITY, ACTIVITY, OR BASIC COMPONENT THAT HAS BEEN, IS BEING, OR WILL BE GIVEN TO PURCHASERS OR LICENSEES:

The tripper bar tab installation is verified by visual inspection, possible with the breaker in service. An industry notification was distributed at the time the tripper bar tab was discovered to be improperly modified.



POWER REACTOR

EVENT NUMBER: 34632

FACILITY: GINNA  
UNIT: [1] [ ] [ ]  
RX TYPE: [1] W-2-LP

REGION: 1  
STATE: NY

NOTIFICATION DATE: 08/12/98  
NOTIFICATION TIME: 14:10 [ET]  
EVENT DATE: 07/27/98  
EVENT TIME: 12:00 [EDT]  
LAST UPDATE DATE: 08/12/98

NRC NOTIFIED BY: BOB MECREDY  
HQ OPS OFFICER: DICK JOLLIFFE

NOTIFICATIONS

EMERGENCY CLASS: NOT APPLICABLE  
10 CFR SECTION:  
CDEG 21.21(c)(3)(i) DEFECTS/NONCOMPLIANCE

DAVID SILK, R1 RDO  
EDWARD McALPINE, R2 RDO  
MARK RING, R3 RDO  
GARY SANBORN, R4 RDO  
VERN HODGE NRR

UNIT	SCRAM CODE	RX CRIT	INIT PWR	INIT RX MODE	CURR PWR	CURR RX MODE
1	N	Y	100	POWER OPERATION	100	POWER OPERATION

EVENT TEXT

10CFR21 - WESTINGHOUSE DB-75 CIRCUIT BREAKERS WITH MISSING TRIPPER BAR TABS

THERE ARE SIX WESTINGHOUSE DB-75 CIRCUIT BREAKERS INSTALLED AT GINNA IN SAFEGUARDS BUSES #14 AND #16 AND ONE UNINSTALLED SAFETY RELATED SPARE.

ON 03/25/98, DURING TROUBLESHOOTING ACTIVITIES, THE LICENSEE DISCOVERED THAT THE CENTER TRIPPER BAR TABS WERE MISSING FROM A WESTINGHOUSE DB-75 CIRCUIT BREAKER INSTALLED IN THE 'B' EMERGENCY DIESEL GENERATOR (EDG) SUPPLY CIRCUIT BREAKER TO THE CLASS 1E SAFETY RELATED BUS #16 AT GINNA.

PRIOR TO 03/25/98, GINNA MAINTENANCE TECHNICIANS HAD RETROFITTED THE 'B' EDG DB-75 SUPPLY CIRCUIT BREAKER WITH AN AMPTECTOR SOLID STATE TRIP UNIT PER WESTINGHOUSE INSTRUCTION I.B. 33-850-6 THAT INSTRUCTED THE TECHNICIANS TO REMOVE ALL TRIPPER BAR TABS FROM THE TRIPPER BAR. SUBSEQUENTLY, THE WESTINGHOUSE INSTRUCTION BULLETIN WAS REVISED TO SPECIFICALLY LEAVE THE CENTER TRIPPER BAR TAB INSTALLED. THERE WERE NO WESTINGHOUSE NOTIFICATIONS TO GINNA TO REINSTALL THE CENTER TRIPPER BAR TABS ON PREVIOUSLY MODIFIED DB-75 CIRCUIT BREAKERS.

THE ABSENCE OF THE CENTER TRIPPER BAR TAB ALLOWED TWO TRIPPER BAR BUSHINGS TO FALL FROM THEIR HOUSING AND IS BELIEVED TO, OVER TIME, BEND THE TRIPPER BAR SO THAT IT WOULD NOT FULLY RESET. THE FAILURE OF THE TRIPPER BAR TO FULLY RESET CAUSED THE INTERMITTENT FAILURE TO CLOSE ON THE DB-75 'B' EDG SUPPLY CIRCUIT BREAKER TO BUS #16.

WITH THE IDENTIFIED DEFICIENCY IN THE 'B' EDG SUPPLY CIRCUIT BREAKER, IT IS POSSIBLE THAT A SINGLE FAILURE COULD RENDER BOTH SAFETY TRAINS INCAPABLE OF PERFORMING THEIR SAFETY FUNCTIONS (BUSES #14 AND #16).

170001 (Continued on next page)



THIS DEFICIENCY CONSTITUTES A SUBSTANTIAL SAFETY HAZARD.

BETWEEN MAR 85 AND FEB 88, THE DB-75 'B' EDG SUPPLY CIRCUIT BREAKER WAS INSTALLED WITH THE INCORRECT MODIFICATION. IN FEB 88, THE DB-75 CIRCUIT BREAKER INSTALLED IN THE 'A' EDG SUPPLY BREAKER ON BUS #14 WAS INCORRECTLY MODIFIED IN THE SAME MANNER AS THE 'B' EDG SUPPLY CIRCUIT BREAKER. BETWEEN FEB 88 AND MAY 96, BOTH EDG OUTPUT CIRCUIT BREAKERS TO BUSES #14 AND #16 WERE INSTALLED WITH THE INCORRECT MODIFICATIONS.

IN MAY 96, THE ORIGINAL SPARE DB-75 CIRCUIT BREAKER, #96-04, WAS INSTALLED IN THE 'A' EDG SUPPLY BREAKER POSITION. CIRCUIT BREAKER #96-04 HAD BEEN MODIFIED CORRECTLY PER THE CURRENT REVISION OF THE WESTINGHOUSE INSTALLATION INSTRUCTIONS PRIOR TO BEING INSTALLED INTO THE 'A' EDG SUPPLY CIRCUIT BREAKER POSITION.

ON 03/25/98, THE LICENSEE INSPECTED ALL WESTINGHOUSE DB-75 CIRCUIT BREAKERS AT GINNA. PLANT MAINTENANCE TECHNICIANS INSTALLED CENTER TRIPPER BAR TABS ON THE 'B' EDG SUPPLY CIRCUIT BREAKER AND THE SPARE CIRCUIT BREAKER, PREVIOUSLY INSTALLED IN THE 'A' EDG SUPPLY CIRCUIT BREAKER POSITION. THE DB-75 CIRCUIT BREAKERS ON BUSES #14 AND #16 AND THE TWO BUS TIE CIRCUIT BREAKERS BETWEEN BUSES #14 AND #16 HAD BEEN CORRECTLY MODIFIED PER THE REVISED WESTINGHOUSE INSTRUCTIONS.

ALTHOUGH THE POTENTIAL FOR FAILURE EXISTED AT GINNA, THE WESTINGHOUSE DB-75 CIRCUIT BREAKERS WERE TESTED WITH REGULAR SURVEILLANCE TESTS TO PROVE OPERABILITY AND THE FAILURE MECHANISM IS OF THE NATURE THAT DEGRADES OVER TIME. THE MISSING TRIPPER BAR TAB WOULD NOT IMMEDIATELY FAIL THE CIRCUIT BREAKER UPON REMOVAL.

LICENSEE NUCLEAR ENGINEERING PERSONNEL ARE PERFORMING A VENDOR DOCUMENT REVIEW TO VERIFY THAT ALL WESTINGHOUSE DB-75 CIRCUIT BREAKERS ARE PROPERLY CONFIGURED IN ACCORDANCE WITH APPLICABLE VENDOR DOCUMENTATION. ALL LICENSEE CORRECTIVE ACTIONS ARE SCHEDULED TO BE COMPLETED BY 12/31/98.

ON 03/25/98, THE LICENSEE DISTRIBUTED A NOTIFICATION OF THIS CONDITION TO INDUSTRY REPRESENTATIVES. THE CENTER TRIPPER BAR TAB INSTALLATION CAN BE VERIFIED BY VISUAL INSPECTION, POSSIBLY WHILE THE CIRCUIT BREAKER IS IN SERVICE.

SPECIFIC INFORMATION FOR THIS REPORT WAS OBTAINED DURING DISCUSSIONS WITH WESTINGHOUSE REPRESENTATIVES ON 07/27/98.

THE LICENSEE PLANS TO SUBMIT A WRITTEN 10CFR21 REPORT OF THIS CONDITION TO THE NRC BY 09/11/98.

