NRC Form 366 (9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
R. E. Ginna Nuclear Power Plant	0 5 0 0 0 2 4 4	1 OF 0 3

TITLE (4)
Automatic Actuation of Reactor Protection System

EVENT DATE (5)			LER NUMBER (6)					REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR		SEQUENTIAL NUMBER		REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES	DOCKET NUMBER(S)
0 4	0 8	8 5	8 5	-	0 1 0	-	0 0	0 5	0 8	8 5		0 5 0 0 0
												0 5 0 0 0

OPERATING MODE (9)	N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
POWER LEVEL (10)	0 0 0	20.402(b)	20.405(c)	X 50.73(a)(2)(iv)	73.71(b)
		20.405(a)(1)(i)	50.36(a)(1)	50.73(a)(2)(v)	73.71(c)
		20.405(a)(1)(ii)	50.36(a)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
		20.405(a)(1)(iii)	50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
		20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	
		20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
G. F. Larizza, Operations Manager	AREA CODE 3 1 5 5 2 4 - 4 4 4 6

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	
B	I G	- R L Y	W 1 2 0	Y							

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO				

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

On April 8, 1985, during an operational test of the nuclear instrumentation system intermediate range channel N-35, a variable test signal was applied in accordance with the applicable steps of procedure PT-6.2 (N.I.S. Intermediate Range Channels.) Upon reaching the reactor trip setpoint the "B" reactor trip breaker opened with no annunciation of a reactor trip "first out." A computer printout was used to verify the source of the reactor trip. The cause of the event has been attributed to a faulty relay coil in the "B" train logic for NIS source range channel N-31, which is physically located adjacent to an intermediate range relay which was actuated during the testing. The faulty coil allowed intermittent opening of a relay contact if the relay was vibrated. The relay failure was in the safe direction and at no time was a safety function inoperable.

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TEXT (If more space is required, use additional NRC Form 366A's) (17)

At 0945 hours on April 8, 1985, during an operational test of the Nuclear Instrumentation System (NIS) intermediate range channel N-35, a variable test signal was applied in accordance with the applicable steps of procedure PT-6.2 (N.I.S. Intermediate Range Channels.) The variable test signal is used to verify the reactor trip setpoint and is applied while the level trip switch is in the bypass position, to prevent an actual reactor trip. Upon reaching the reactor trip setpoint the "B" reactor trip breaker opened with no annunciation of a reactor trip "first out." The plant was in the hot shutdown mode of operation with the shutdown bank of control rods at 50 steps and being withdrawn in accordance with plant startup procedure. All other banks of control rods were fully inserted. Upon repeating the test sequence, the "B" reactor trip breaker opened again and a reactor trip "first out" annunciation of "SOURCE RANGE HI FLUX LEVEL REACTOR TRIP" was received, although no indication of this was observed on the source range instrumentation. The manual reactor trip pushbutton was also actuated to verify that the "A" reactor trip breaker would open, which it did.

The cause of the event has been attributed to a faulty coil for source range channel N-31, relay N-31D which was sensitive to vibration. The faulty relay was physically located in the "B" reactor trip protection train rack adjacent to a relay actuated by NIS intermediate range instrument N-35. The actuation of the N-35 intermediate range relay during the operability test would vibrate the N-31D relay, resulting in momentary opening of its contacts. The momentary opening of contacts caused a one out of two logic in one reactor trip train to be established. This one out of two logic in only the "B" train caused only the "B" reactor trip breaker to open. Due to the small amount of time of the loss of contact (one cycle) in the N-31D relay in the initiating event, the "first out" annunciator was not illuminated, although the computer did acknowledge the signal.

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TEXT (If more space is required, use additional NRC Form 366A's) (17)

The momentary loss of contact was caused by a faulty coil which would allow vibration of the contacts if the relay was jarred or shaken. The actuation of the intermediate range relay during the testing would induce enough vibration to the 31D relay to allow the contacts to open intermittently. Operations personnel were successful in repeating this failure several times and Instrument and Control technicians were able to cause the 31D relay to fail by merely tapping it. The 31D relay was replaced with a new relay and the NIS instrumentation was successfully tested. The relay failure was in the safe direction and at no time was a safety function inoperable.

A review has been made of the reactor protection and annunciation system. The system performed in accordance with design and no modifications are deemed necessary at this time.

RGE AND

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May 8, 1985

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

Subject: LER 85-010, Automatic Actuation of the Reactor Protection System (RPS)
R.E. Ginna Nuclear Power Plant
Docket No. 50-244

In accordance with 10 CFR 50.73, Licensee Event Report System, item (a)(2)(iv) which requests a report of, "any event or condition that resulted in manual or automatic actuation of any Engineered Safety Feature (ESF), including the Reactor Protection System (RPS)," the attached Licensee Event Report LER 85-010 is hereby submitted.

Very truly yours,

Roger W. Kober

Roger W. Kober

RWK/eeg

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