

# CATEGORY 1

## REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 9805140257    DOC.DATE: 98/05/04    NOTARIZED: NO    DOCKET #  
FACIL: 50-410 Nine Mile Point Nuclear Station, Unit 2, Niagara Moha    05000410  
AUTH.NAME    AUTHOR AFFILIATION  
WARD, K.D.    Niagara Mohawk Power Corp.  
DAHLBERG, K.A.    Niagara Mohawk Power Corp.  
RECIP.NAME    RECIPIENT AFFILIATION

SUBJECT: LER 98-007-00: on 980402, TS 3.0.3 entry occurred due to missed logic sys functional testing of loss of voltage & degraded channels. Caused by poor work practices. Applicable contacts were tested. W/980504 ltr.

DISTRIBUTION CODE: IE22T    COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 6  
TITLE: 50.73/50.9 Licensee Event Report (LER), Incident Rpt, etc.

### NOTES:

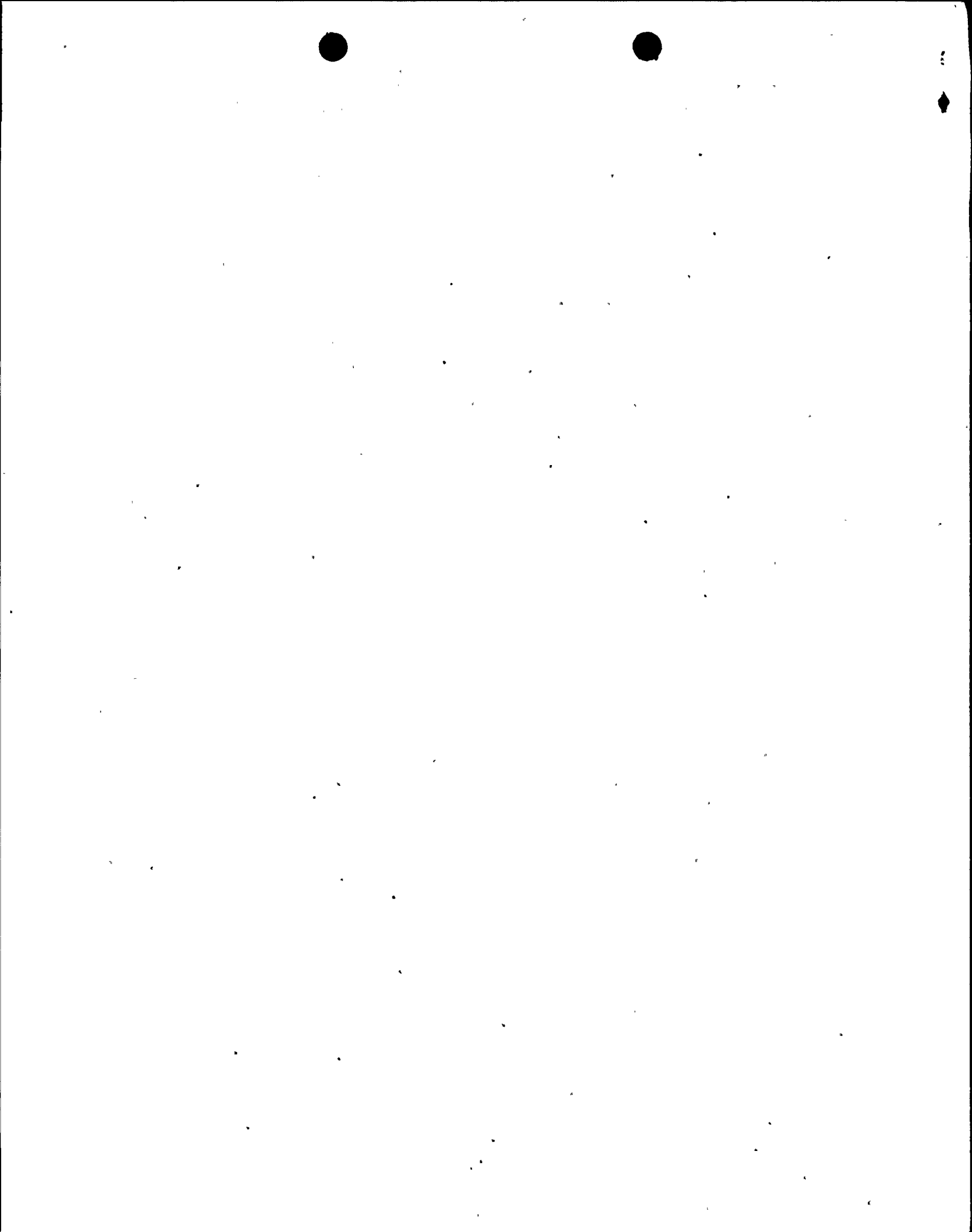
	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL
	PD1-1 PD	1 1	HOOD, D	1 1
INTERNAL:	ACRS	1 1	AEOD/SPD/RAB	2 2
	AEOD/SPD/RRAB	1 1	<del>FTDE-CENTER</del>	1 1
	NRR/DE/ECGB	1 1	NRR/DE/EELB	1 1
	NRR/DE/EMEB	1 1	NRR/DRCH/HHFB	1 1
	NRR/DRCH/HICB	1 1	NRR/DRCH/HOLB	1 1
	NRR/DRCH/HQMB	1 1	NRR/DRPM/PECB	1 1
	NRR/DSSA/SPLB	1 1	NRR/DSSA/SRXB	1 1
	RES/DET/EIB	1 1	RGN1 FILE 01	1 1
EXTERNAL:	L ST LOBBY WARD	1 1	LITCO BRYCE, J H	1 1
	NOAC POORE, W.	1 1	NOAC QUEENER, DS	1 1
	NRC PDR	1 1	NUDOCS FULL TXT	1 1

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NIAGARA MOHAWK

GENERATION  
BUSINESS GROUP

NINE MILE POINT NUCLEAR STATION/LAKE ROAD, P.O. BOX 63, LYCOMING, NEW YORK 13093

May 4, 1998  
NMP2L 1777

United States Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555

RE: Docket No. 50-410  
LER 98-07

Gentlemen:

In accordance with 10CFR50.73 (a)(2)(i)(B), we are submitting LER 98-07, "Technical Specification 3.0.3 Entry Due to Missed Logic System Functional Testing of Loss of Voltage and Degraded Voltage Channels."

Very truly yours,

Kim A. Dahlberg  
Plant Manager - Unit 2

KAD/TWP/kap  
Attachment

xc: Mr. H. J. Miller, Regional Administrator, Region I  
Mr. B. S. Norris, Senior Resident Inspector  
Records Management

JES

9805140257 980504  
PDR ADOCK 05000410  
S PDR



LICENSEE EVENT REPORT (LER)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503

FACILITY NAME (1) Nine Mile Point Unit 2	DOCKET NUMBER (2) 05000410	PAGE (3) 1 OF 5
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TITLE (4)  
Technical Specification 3.0.3 Entry Due to Missed Logic System Functional Testing of Loss of Voltage and Degraded Voltage Channels

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)
04	02	98	98	07	00	05	04	98	N/A	05000
									N/A	05000

OPERATING MODE (9) 1 THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)

POWER LEVEL (10) 91	<input type="checkbox"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(2)(v)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(viii)
	<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(3)(i)	<input type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(x)
	<input type="checkbox"/> 20.2203(a)(2)(i)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 73.71
	<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 20.2203(a)(4)	<input type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> OTHER
	<input type="checkbox"/> 20.2203(a)(2)(iii)	<input type="checkbox"/> 50.36(c)(1)	<input type="checkbox"/> 50.73(a)(2)(v)	<i>(Specify in Abstract below and in Text, NRC Form 366A)</i>
	<input type="checkbox"/> 20.2203(a)(2)(iv)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(vii)	

LICENSEE CONTACT FOR THIS LER (12)

NAME K. D. Ward, Technical Support Manager	TELEPHONE NUMBER (315) 349-1043
---	------------------------------------

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPK	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRPDS

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE)  NO

EXPECTED SUBMISSION DATE (15)

MONTH	DAY	YEAR

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

On April 2, 1998, Niagara Mohawk Power Corporation (NMPC) determined that the Nine Mile Point Unit 2 (NMP2) Logic System Functional Test (LSFT) procedures for the loss of voltage and degraded voltage channels for the emergency bus for Divisions I, II, and III failed to verify the entire circuit. This is a violation of Technical Specification Surveillance Requirement (TS SR) 4.3.3.2, which is required to be performed at least once per 18 months. In addition, this condition required entry into TS Limiting Condition for Operation (LCO) 3.0.3, since the TS do not contain an action statement for more than one channel being inoperable. Since this condition resulted from a failure to adequately perform a TS SR, the action requirements were delayed to permit the completion of the testing in accordance with SR 4.0.3.

The cause of this event has been determined to be poor work practices. The deficiencies should have been identified during initial procedure development. Subsequent reviews also failed to identify the deficiencies.

The applicable contacts were tested and TS LCO 3.3.3 and 3.0.3 were exited. Untested contacts for the alternate feed (which is not in service) will be tested during the upcoming refueling outage. The applicable LSFT procedures will be revised.



LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATIONESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION  
REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE  
RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY  
COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT  
(3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Nine Mile Point Unit 2	05000410	98	- 07	- 00	02 OF 05

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

**I. DESCRIPTION OF EVENT**

On April 2, 1998, at 1909 hours, Niagara Mohawk Power Corporation (NMPC) determined that the Nine Mile Point Unit 2 (NMP2) Logic System Functional Test (LSFT) procedures for the loss of voltage and degraded voltage channels for the emergency bus for Divisions I, II, and III failed to verify the entire circuit. This is a violation of Technical Specification Surveillance Requirement (TS SR) 4.3.3.2, which is required to be performed at least once per 18 months. In addition, this condition required entry into TS Limiting Condition for Operation (LCO) 3.0.3, since the TS do not contain an action statement for more than one channel being inoperable. Since this condition resulted from a failure to adequately perform a TS SR, the action requirements were delayed to permit the completion of the testing in accordance with SR 4.0.3.

This deficiency was identified during a review of logic circuits being performed as a result of commitments associated with Generic Letter (GL) 96-01, Testing of Safety-Related Logic Circuits. During this review, it was determined that one contact in each of the degraded voltage circuits for Divisions I and II had not been tested by the LSFT procedures. The state of these contacts is dependent on whether a LOCA signal is present. The LOCA contact is bypassed by a jumper to enable the degraded voltage time delay relay in series with this contact to be tested. As a result, the associated LOCA contact itself was not properly tested. In addition, adequate testing was not performed for certain contacts indicating bus feeder breaker position in Divisions I, II, and III. The function of these contacts had been masked during testing by a closed contact associated with emergency diesel generator output breaker position, which is wired in parallel. As a result, the contacts for the bus feeder breakers were not properly tested.

TS 3.3.3 requires the emergency core cooling system (ECCS) actuation instrumentation channels shown in Table 3.3.3-1 be operable. With one or more channels inoperable, the action required by the Table must be taken. Table 3.3.3-1 Sections D and E provide the requirements for loss of voltage and degraded voltage to the emergency bus for Divisions I and II and for Division III, respectively. Table 3.3.3-1, Action 39 states that with the number of operable channels one less than the total number of channels (3/Bus), the inoperable channel shall be placed in the tripped condition within one hour. Since all channels were declared inoperable, TS 3.0.3 was entered for this condition on April 2, 1998 at 1909 hours. The provisions of TS 4.0.3 were utilized to permit testing of the missed circuit contacts.

On April 3, 1998, at 1341 hours, the LSFT requirements for loss of voltage and degraded voltage for the normal power supplies for Divisions I, II, and III were completed satisfactorily. Testing was completed to the extent possible on the alternate feed to the divisional switchgear. The alternate feed provides a backup power source from offsite in the event the normal power supply is not available. This alternate feed is provided via a separate breaker cubicle that does not contain a breaker during normal operation. If this alternate feed is required, the divisional switchgear is provided temporary power by the respective emergency diesel generator. The normal supply breaker is then racked out and relocated to the alternate feeder breaker cubicle and is used to provide power to the switchgear, at which time the emergency diesel generator may be



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LICENSEE EVENT REPORT (LER)  
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RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY  
COMMISSION, WASHINGTON, DC 20535, AND TO THE PAPERWORK REDUCTION PROJECT  
(3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
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Nine Mile Point Unit 2	05000410	98	07	00	03 OF 05

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

**I. DESCRIPTION OF EVENT (cont'd)**

secured. The closed position contacts only remained untested for the alternate feed due to the plant configuration required to complete this testing. Holdout tags were hung to ensure that the appropriate testing is completed prior to the alternate feed being declared operable. TS 3.3.3 and 3.0.3 were exited.

**II. CAUSE OF EVENT**

The cause of this event has been determined to be poor work practices. The initial procedure writers did not perform an adequate review to ensure that all the appropriate contacts were tested. The missed contacts in this circuit are at a dividing line between two of the LSFT procedures. This insufficient overlap between the procedures should have been identified during the initial procedure development.

During the review of this event, technical inaccuracies were identified in color coded LSFT drawings that are used for the review of procedures involving LSFT requirements. The missed contacts were not color coded to indicate which procedure tested these contacts. This lack of color coding would provide misleading information with respect to the LSFT requirements. NMPC had performed two previous LSFT reviews (in 1989 and 1995) that were independent of the review for GL 96-01. Neither of these previous reviews identified these deficiencies. The drawing inaccuracies may have influenced the results of the reviews. However, personnel involved in these reviews were knowledgeable of TS SR and LSFT requirements and should have identified these deficiencies.

**III. ANALYSIS OF EVENT**

This event is reportable in accordance with 10CFR50.73(a)(2)(i)(B), "any operation or condition prohibited by the plant's Technical Specifications."

Loss of voltage or degraded voltage conditions are monitored to ensure adequate capability exists to supply power to start and operate emergency loads. If adequate power is not available from the offsite power sources, the emergency diesel generators provide power to the respective switchgear. When the associated contacts were tested using the temporary procedure, all contacts operated correctly, and therefore, all actions that would have been required during a loss of voltage or degraded voltage condition would have occurred. Since this circuitry was demonstrated to be functional, this event did not pose a threat to the health and safety of the public or to plant personnel.



LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 30.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
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TEXT (If more space is required, use additional NRC Form 366A's) (17)

#### IV. CORRECTIVE ACTIONS

1. The applicable contacts were tested and TS LCO 3.3.3 and 3.0.3 were exited.
2. The untested contacts for the alternate feed will be tested prior to startup from refueling outage six (RFO6).
3. The applicable LSFT procedures will be revised to incorporate the appropriate testing requirements prior to their next use but no later than October 1, 1998.
4. The objective of the GL 96-01 review was to ensure that all LSFT components are adequately tested from the sensor through and including the actuated device. The rigor and level of detail of this review identified this missed LSFT requirement and demonstrates the acceptability of current work practices. Upon completion of the GL 96-01 review, a determination will be made as to whether the color-coded LSFT drawings will become controlled documents or considered historical documentation. NMPC will include this determination in its response documenting the completion of the GL 96-01 review. The GL 96-01 review is scheduled for completion prior to startup from RFO6.

#### V. ADDITIONAL INFORMATION

- A. Failed components: none.
- B. Previous similar events:

NMP2 has had a number of instances where procedure preparation or review caused missed or inadequately performed surveillance tests. In accordance with NMPC's Corrective Action Program, a Deviation/Event Report (DER) was initiated to evaluate this trend. A root cause team was assembled to evaluate this overall trend to determine if process problems or other common aspects could be identified. Required corrective actions will be taken as necessary to correct any identified deficiencies in accordance with the corrective action program.

LER 98-04 also involved a missed LSFT. A cause of that event was poor work practices, which led to an incorrect determination of what component served as the actuated device. The rigor and level of detail of the GL 96-01 review identified the missed LSFT described in this LER and should prevent further occurrence.



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LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATIONESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION  
REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE  
RECORDS AND REPORTS MANAGEMENT BRANCH (P-330), U.S. NUCLEAR REGULATORY  
COMMISSION, WASHINGTON, DC 20535, AND TO THE PAPERWORK REDUCTION PROJECT  
(3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)  Nine Mile Point Unit 2	DOCKET NUMBER (2)  05000410	LER NUMBER (6)			PAGE (3)  05 OF 05
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
		98	07	00	

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

V. **ADDITIONAL INFORMATION** (cont'd)

## C. Identification of components referred to in this LER:

COMPONENT	IEEE 803 FUNCTION	IEEE 805 SYSTEM ID
Class 1E Switchgear	SWGR	EB
Emergency Diesel Generators	DG	EK
Circuit Breakers, AC	52	EB
Relays	RLY	EB



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