

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Nine Mile Point Unit 2	DOCKET NUMBER (2) 0 5 0 0 0 4 1 0	PAGE (3) 1 OF 0 5
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TITLE (4)
Division I, II, III Diesel Generators Inoperable

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)
1	2	86	86	22	01	7	0	87	N/A		0 5 0 0 0
1	2	86	86	22	01	7	0	87	N/A		0 5 0 0 0

OPERATING MODE (9) 4

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

20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
20.405(a)(1)(i)	50.36(c)(1)	<input checked="" type="checkbox"/> 50.73(a)(2)(v)	73.71(c)
20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vi)	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)(vii)(A)	
20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(vii)(B)	
20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME Robert G. Randall, Supervisor Technical Support	TELEPHONE NUMBER
	AREA CODE: 3 1 5 3 4 9 - 2 4 4 5

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE) NO

EXPECTED SUBMISSION DATE (15)

MONTH	DAY	YEAR

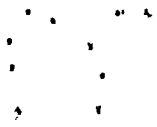
ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

On December 22, 1986 the three standby diesel generators (DG) at Nine Mile Point Unit 2 (NMP2) were declared inoperable as a result of simultaneous draining of each DG day tank during a chemistry surveillance test. The reactor was at 0% power, with the mode switch in "SHUTDOWN". Additionally, plant operations were in compliance with NMP2 Technical Specification section 3.8.1.2 action statement "a". No transients occurred while the standby DG's were inoperable.

CORRECTIVE ACTIONS TAKEN

- (1) Chemistry surveillance procedure N2-CSP-8 will be revised.
- (2) The parties involved have been counseled on event severity and consequences.
- (3) A letter has been written to the chemistry technicians re-enforcing the need to communicate any identified procedural deficiencies to supervision.
- (4,5) All chemistry surveillance procedures will be promptly reviewed for plant impact. A general revision will also be conducted.
- (6) A letter has been written to operators to ensure adequate assessment of procedures prior to authorization by the control room supervision.
- (7) As of January 19, 1987 the control room will not allow any surveillance or maintenance procedures to be run without plant impact statements. (There may be exceptions as described in the text.)

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

I. DESCRIPTION OF EVENT

On December 22, 1986 at 0910 the three standby diesel generators (DG) at Nine Mile Point Unit 2 (NMP2) were declared inoperable. The reactor was at 0% power level with the mode switch in "SHUTDOWN". Plant operations were in compliance with the action statement of NMP2 Technical Specification 3.8.1.2: (1) no core alterations were being performed, (2) no irradiated fuel was being handled in the secondary containment, (3) any operations that could drain the reactor vessel were suspended, (4) no crane operations over the spent fuel storage pool were being performed.

The three standby DG's were simultaneously made inoperable due to the fuel oil day tanks being drained down (at the same time) below the limits in NMP2 Technical Specification section 3.8.1.2. This occurred while a chemistry surveillance test was being conducted on the standby DG fuel oil systems.

No transients occurred while the standby DG's were inoperable. The day tank levels were restored and the standby DG's were declared operable later the same morning.

II. CAUSE OF EVENT

There were multiple root causes for this event. The contributing factors are: (1) procedural deficiency, (2) failure to follow procedure, (3) inadequate procedure revision, (4) inadequate procedural review, and (5) inadequate communication.

Procedural Deficiency

Chemistry Surveillance Procedure N2-CSP-8 requires a fuel oil sample to be taken from each DG fuel oil system. The sample is to be taken while fuel oil is flowing from the main storage tank to the DG day tank. This is in compliance with ASTM D2276-78 sampling requirements.

The intent of N2-CSP-8 was to run a fuel oil transfer pump to recirculate fuel oil from the main storage tank, through the day tank overflow line, back to the main storage tank. The technician would then take a fuel oil sample while the fuel oil transfer system was in this recirculation mode.



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

Believing that the DG day tank would overflow its vent line, the chemistry technician took actions to modify the sampling method without revising N2-CSP-8. This sampling method (developed prior to receipt of the NMP2 operating license) consisted of; (1) opening the day tank drain valve, and (2) draining the day tank while bypassing the automatic start feature of the fuel oil transfer pumps (pump auto-starts on low tank level), until the day tank was drained to the desired level. The drain valve would then be closed and the transfer pumps would be started, transferring fuel oil from the main storage tank to the day tank. The sample would be taken while the transfer pumps were running. The level at which the day tank was drained, was chosen to ensure that the transfer pump ran long enough (to ensure a good sample) before the day tank would overflow.

This technique had the potential of causing a standby diesel generator to be inoperable, by draining the DG day tanks below the levels required for DG operability as defined by NMP2 Technical Specifications. At the time when this sampling method was developed DG operability requirements were not required, since the Technical Specifications were not yet in effect.

N2-CSP-8 was also not specific enough to prevent various interpretations of the sampling technique. Specifically it did not; (1) prohibit the simultaneous draining of all three DG day tanks, which occurred on December 22, 1986, (2) prohibit the bypassing of the auto-start feature of the fuel oil transfer pumps, (3) set limits as to the lowest level the day tank can be drained, or (4) include a plant impact statement describing the significance of draining the day tank.

Failure to Follow Procedure

For the reasons described above the chemistry technician did not follow the procedure as written. Additionally, the equipment operator assisting in the surveillance did not familiarize himself with the procedure or ensure that the equipment manipulations he was performing were called for in the procedure. Furthermore, the Station Shift Supervisor (SSS) was not notified by the Chemistry technician as required by the procedure prior to starting the surveillance. The SSS did not have an opportunity to review the test procedure, or make comments.

Inadequate Procedure Revision

The chemistry technician did not communicate to supervision any deficiency in N2-CSP-8. Therefore, the procedure was not revised to account for any changes in the sampling method.

Inadequate Procedural Review

Chemistry surveillance procedure N2-CSP-8 was not adequately reviewed for possible plant impact of the sampling technique.



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TEXT (If more space is required, use additional NRC Form 368A's) (17)

Inadequate Communication

The chemistry technician did not inform the Chief Shift Operator (CSO) of the exact nature of the sampling procedure. The CSO also did not challenge the chemistry technician to ensure he had an adequate understanding of the plant impact of the sampling procedure. Therefore, the CSO was not able to assign a properly experienced operator to assist in the surveillance test or make an adequate assessment of the sampling technique on system operability.

III. ANALYSIS OF EVENT

This event did not impact plant safety for the following reasons; (1) the reactor was in cold shutdown, at ambient temperature and pressure, (2) the reactor did not have a power history, (3) no operations were being performed which required standby DG operability, (the action statement of Technical Specification 3.8.1.2 was satisfied) and (4) the inoperable status of the DG's was immediately apparent, testing was stopped, and the first DG was restored to operable status by operations within twelve minutes from the receipt of the first DG inoperable alarm.

Had this event occurred at normal (full power) operation, the sequence of events would be similar to that described above: (1) the chemistry surveillance would be terminated, (2) the situation would be quickly assessed, and (3) corrective actions would be taken to restore the DG's to an operable status within the time frame specified by the action statements of Technical Specification section 3.8.1.1.

IV. CORRECTIVE ACTIONS TAKEN

Procedural Deficiency

- (1) A temporary change notice has been written against the standby fuel oil chemistry surveillance procedure N2-CSP-8 to ensure; (a) the SSS is notified and signs off on the procedure prior to testing, (b) the surveillance test is performed only on one standby DG at a time, and (c) a plant impact statement has been added. Furthermore, N2-CSP-8 will be revised to ensure that the fuel oil day tanks are not drained below the Technical Specification operability levels, and the automatic start feature of the fuel oil transfer pumps are not bypassed. This revision will be implemented prior to the next use of this procedure.

Failure to Follow Procedure

- (2) The parties involved have been counseled on the severity of this event and consequences of their actions. Further disciplinary actions will be implemented as deemed necessary.



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

Inadequate Procedure Revision

- (3) A letter has been written to the chemistry technicians re-enforcing the need to communicate any identified procedural deficiencies to supervision. This will ensure timely procedure revisions so that the procedure adequately covers the work required.

Inadequate Procedural Review

- (4) All chemistry surveillance procedures will be reviewed for impact of the test procedure on plant systems. The results of this review will be implemented prior to the next use of these procedures.
- (5) A general review of the chemistry surveillance procedures for procedural controls will be conducted. The estimated completion date for this general review is May 1, 1987.

Inadequate Communication

- (6) A letter has been written to Operations personnel to ensure that the duty CSO and SSS assess the plant impact of all procedures brought for their approval, prior to giving authorization to conduct the procedure.
- (7) As of January 19, 1987 the control room will not allow any surveillance or maintenance procedures to be run without plant impact statements. (The SSS/CSO may give approval to conduct certain classifications without plant impact statements, but only after he adequately assesses plant impact prior to giving his authorization.)

V. ADDITIONAL INFORMATION

No other LER's cover events similar to that discussed in this report.

Identification of Components Referred to in this LER

Component	IEEE 803 EIIS Funct	IEEE 805 System ID
Diesel Generator	DG	EK
Pump	P	DC
Drain	DRN	DC
Tank	TK	DC



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