

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)
Design of Manhole #5

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	2	9	8	6	8	6	0	2	6	1	0	7	0	7	8	7	N/A	0 5 0 0 0 . . .
																		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)																				
POWER LEVEL (10) 0 0 0	<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.405(a)(1)(i)	<input type="checkbox"/> 20.405(a)(1)(ii)	<input type="checkbox"/> 20.405(a)(1)(iii)	<input type="checkbox"/> 20.405(a)(1)(iv)	<input type="checkbox"/> 20.405(a)(1)(v)	<input type="checkbox"/> 20.406(c)	<input type="checkbox"/> 50.36(c)(1)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input checked="" type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 50.73(a)(2)(vi)	<input type="checkbox"/> 50.73(a)(2)(vii)(A)	<input type="checkbox"/> 50.73(a)(2)(vii)(B)	<input type="checkbox"/> 50.73(a)(2)(ix)	<input type="checkbox"/> 73.71(b)	<input type="checkbox"/> 73.71(c)	<input type="checkbox"/> OTHER (Specify in Abstract below and in Text, NRC Form 366A)

LICENSEE CONTACT FOR THIS LER (12)		TELEPHONE NUMBER	
NAME Robert G. Randall, Supervisor Technical Support	AREA CODE 31115	31491-121415	

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		

SUPPLEMENTAL REPORT EXPECTED (14)			EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)	<input checked="" type="checkbox"/> NO					

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

On December 29, 1986 it was discovered that conduit seals inside manhole #5 did not meet internal flooding criteria. If an internal flooding event occurred, water could flood the manhole with a developed hydrostatic head sufficient to fail the conduit seals. Therefore, water could flow through the conduits, and result in flooding safety related equipment. Loss of this equipment could impair the stations ability to attain a safe shutdown.

A report in accordance with 10CFR21 was initiated on January 23, 1987. A 10CFR50.72 report was made on January 26, 1987.

From 12/29/86 to 1/26/87, the reactor has been at 0% power and at ambient temperature and pressure.

Corrective Actions Taken:

- The two covers to manhole #5 have been redesigned to meet internal flooding criteria.
- A review was conducted of similar flood paths.
- Engineering procedure NEL-029 is being revised to include an Operations Department notification upon determining a condition is 10CFR21 reportable.

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

I. DESCRIPTION OF EVENT

(Refer to Attached Figure)

On December 29, 1986 conduit seals inside manhole #5 were discovered to be in noncompliance with internal flooding criteria (as discussed in FSAR section 3.4.1.1.3) during an engineering design review of various plant penetrations.

If an internal flooding event occurred, such as a circulating water line break at the condenser the manhole would flood and a sufficient hydrostatic head would be developed to fail the conduit seals. Therefore, water could flow through the conduits and flood (assuming no other mitigating actions are taken) the control building elevations below elevation 261' and the service water pump bays. This would result in the Reactor Protection System (RPS) and Main Steam Isolation Valve (MSIV) logic power supplies being lost along with service water capability. Loss of the Service Water system could impair the ability of the station to attain a safe shutdown.

A report in accordance with 10CFR21 was initiated on January 23, 1987. A 10CFR50.72 report was made on January 26, 1987.

The reactor from 12/29/86 to 1/26/87 has been at 0% power and at ambient temperature and pressure.

II. CAUSE OF EVENT

The root cause of this event is a design deficiency which allowed installation of conduit seals which were not in compliance with the internal flooding criteria as specified by FSAR section 3.4.1.1.3. However, this design deficiency is not generic. A review of similar manhole installations has verified that these installations are in compliance with the design criterion for the function they serve. Therefore, the non-compliance of the conduit seals in manhole #5 is an isolated case.

This condition was not reported as required by 10CFR50.72 until three days after the Nuclear Regulatory Commission was notified for 10CFR21 reportability. The cause of this is a procedural deficiency. The procedure used to determine 10CFR21 reportability (NEL-029) does not require prompt notification of the Operations department for 10CFR50.72 or 50.73 applicability.

This procedural deficiency delayed the 10CFR50.72 report being made in a timely manner.

III. ANALYSIS OF EVENT

As stated, the conduit seals inside manhole #5 were not designed to provide a water tight seal in an internal flooding event.



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Therefore, in the case of a circulating water line break, the lower control building elevations (below 261'-0") and all associated equipment could be flooded. Additionally the service water pump bays could be flooded. Flooding the lower control building elevations (below 261'-0") would result in failure of the RPS and MSIV logic power supplies which would result in the conservative protective actions of a reactor scram and an MSIV isolation. Flooding the service water pump bays would disable the service water pumps, resulting in the loss of the Service Water system. With the reactor at 0% power, with no power history, and at ambient temperature and pressure, the loss of these systems would not result in any danger to the plant or public.

However, at full power operation, assuming that manhole #5 was not brought into compliance, the loss of the Service Water system would result in the loss of cooling water to various safety related equipment including the standby diesel generator coolers and control building coolers. At a minimum the cooling capability of the station would be impaired. This event is bounded by the station blackout event described in Licensing Information Position Statement (LIPS) #19.

The above events (at full power) are not expected to occur since manhole #5 has been brought into compliance with internal flooding criteria.

IV. CORRECTIVE ACTIONS

1. It was decided that it would be more expedient to ensure that the manhole covers would provide adequate sealing rather than modify the conduit seals. Therefore, the two covers for manhole #5 have been modified by Engineering & Design Coordination Report C25578. The manhole installation is now in compliance with internal flooding criteria.
2. As a preventative measure, a review of similar manhole installations was conducted. All installations reviewed are in compliance with design criteria.
3. Engineering procedure NEL-029 is being revised to include a statement which will require immediate notification of the Operations department supervision of a non-compliance condition upon determining that it is reportable under 10CFR21. The Operations supervision will then determine if the condition is also reportable under 10CFR50.72 and 10CFR50.73. The anticipated revision date is March 31, 1987.



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V. ADDITIONAL INFORMATION

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

Identification of Components Referred to in this LER

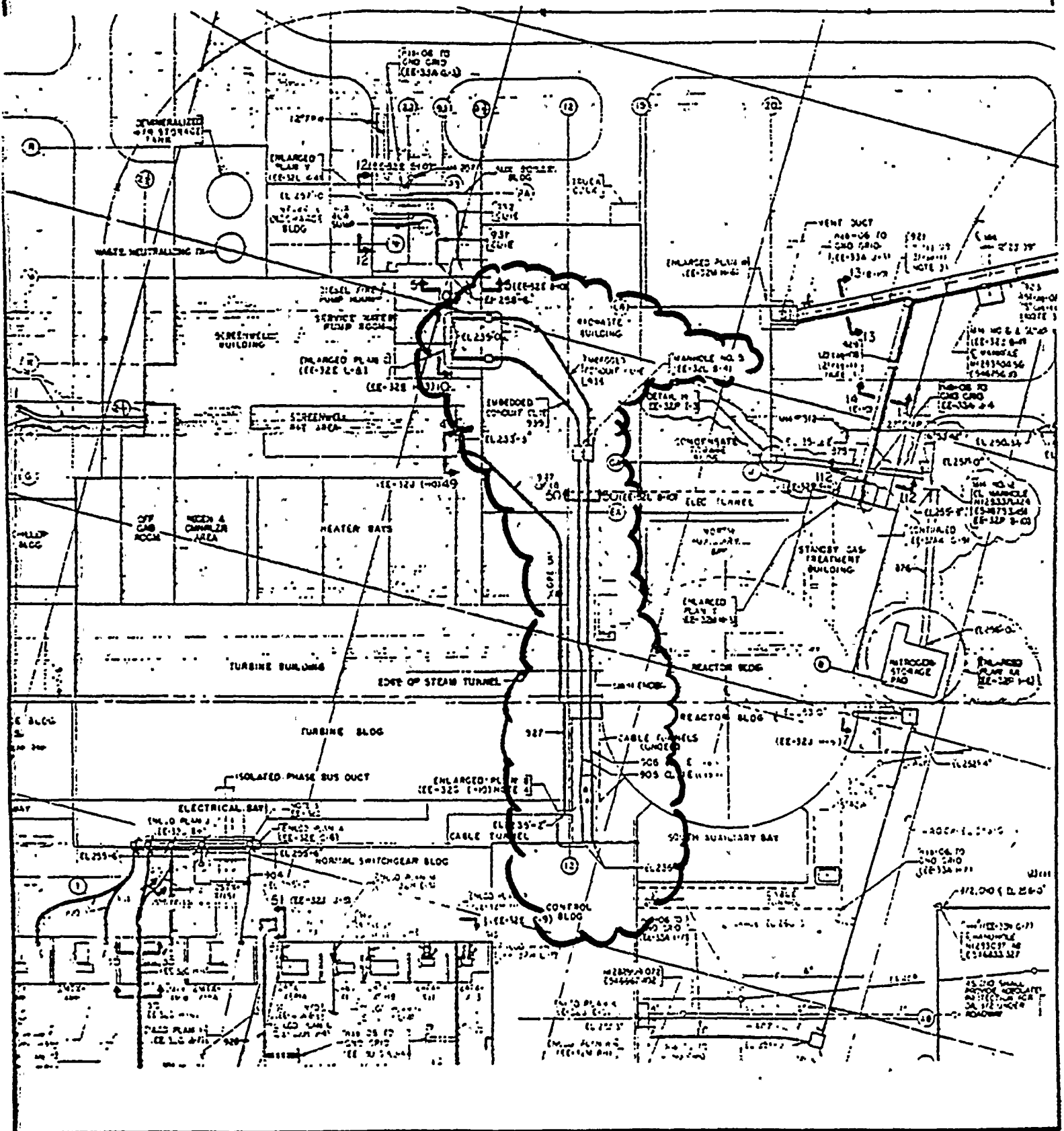
Component	IEEE 803 EIIS Funct	IEEE 805 System ID
Manhole Cover	SEAL	FA
Circulating Water System	N/A	KE
Service Water System	N/A	BI
Service Water Pump	P	BI
Reactor Protection System	N/A	JC
Main Steam Isolation Valve (Logic)	N/A	JC
Standby Diesel Generators	DG	EK
Unit Cooler	CLR	VI
Conduit	CND	FA
Penetration	PEN	FA



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