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ACCESSION NBR:8903010306 DOC.DATE: 89/02/10 NOTARIZED: NO DOCKET #
 FACIL:50-315 Donald C. Cook Nuclear Power Plant, Unit 1, Indiana & 05000315
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 RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: LER 88-012-01:on 881111,turbine room sump not sampled &
 analyzed per Tech Spec due to personnel error. W/8 ltr.

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 TITLE: 50.73 Licensee Event Report (LER), Incident Rpt, etc.

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LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) D. C. Cook Nuclear Plant - Unit 1										DOCKET NUMBER (2) 0 5 0 0 0 3 1 5					PAGE (3) 1 OF 0 4	
TITLE (4) Turbine Room Sump Not Sampled and Analyzed in Accordance with Technical Specifications as a Result of Personnel Cognizant Error																
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	1	1	8	8	0 1 2	0	1	0	D. C. Cook Plant Unit 2				0 5 0 0 0 3 1 6			
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) 0 9 0			20.402(b)				20.405(c)				50.73(a)(2)(iv)				73.71(b)	
			20.405(a)(1)(i)				50.38(c)(1)				50.73(a)(2)(v)				73.71(c)	
			20.405(a)(1)(ii)				50.38(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)(viii)(A)					
			20.405(a)(1)(iv)				50.73(a)(2)(ii)				50.73(a)(2)(viii)(B)					
			X 20.405(a)(1)(v)				50.73(a)(2)(iii)				50.73(a)(2)(ix)					
LICENSEE CONTACT FOR THIS LER (12)																
NAME J. T. Wojcik - Technical Physical Sciences Department Superintendent										TELEPHONE NUMBER						
										AREA CODE 6 1 6 4 6 5 - 5 9 0 1						
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)						
YES (If yes, complete EXPECTED SUBMISSION DATE)										X NO						

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

This revision is being submitted to report additional information and analysis resulting from our continued investigation into this event, as a result, it has been which has determined that the normal discharge of the Turbine Room Sump is to an owner controlled unrestricted area.

On November 11, 1988, during a review of plant Technical Specifications and the Off-site Dose Calculation Manual (ODCM), it was identified that the Turbine Room Sump had not been sampled and analyzed in accordance with Technical Specification 4.11.1.1.1, Table 4.11.1 as identified in the ODCM. As a result: 1) composite samples for the Turbine Room Sump have never been directly analyzed for Sr-89, Sr-90, Fe-55 and Gross Alpha, and; 2) monthly grab samples of the Turbine Room Sump have never been sampled or analyzed for dissolved and entrained gases; 3) reporting requirements for exceeding Technical Specification and 10 CFR limits were not met.

The root cause of this event was the failure to designate the Turbine Room Sump liquid effluent as a release pathway to an unrestricted area and, implement all requirements of Technical Specifications. Based on historical data reviewed it is our belief that the regulatory limits of 10 CFR 20, Appendix B, (when averaged over a year) were not exceeded.

To prevent recurrence procedures have been updated to list the required sampling frequencies and analysis for the Turbine Building Sump System, per Technical Specification Table 4.11-1.

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LICENSED EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/88

FACILITY NAME (1) D. C. Cook Nuclear Plant Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 3 1 5	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		8 8	0 1 2	0 1	0 2	OF	0 4

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

This revision is being submitted to report additional information and analysis resulting from our continued investigation into this event, as a result, it has been determined that the normal discharge of the Turbine Room Sump is to an owner controlled unrestricted area.

CONDITIONS PRIOR TO OCCURRENCE

Unit 1 at 90 percent thermal power, Unit 2 in refueling mode with no fuel in reactor vessel.

DESCRIPTION OF EVENT

On November 11, 1988, during a review of plant Technical Specifications and the Off-site Dose Calculation Manual, it was identified that the Turbine Room Sump System (EIIIS/WH), which discharges to an absorption pond (diagram attached) had not been sampled and analyzed in accordance with Technical Specification 4.11.1.1.1, Table 4.11-1, as required by the Off-site Dose Calculation Manual.

In the past, composite samples of the Turbine Room Sump have been sampled and directly analyzed for principal gamma emitters, I-131 and H-3 on a daily basis. However, the Turbine Building Sump System was not identified as a plant continuous release point. As a continuous release point it is subject to the analysis program given in Table 4.11-1 of the Plant Technical Specifications. As a result: 1) composite samples for the Turbine Room Sump have never been directly analyzed for strontium-89, strontium-90, iron-55 and Gross Alpha; 2) monthly grab samples of the Turbine Room Sump have never been sampled or analyzed for dissolved and entrained gases (gamma emitters); and 3) reporting requirements for exceeding Technical Specifications and 10 CFR limits were not met.

CAUSE OF EVENT

The root cause of this event was the failure to designate the Turbine Room Sump as a radioactive liquid effluent release pathway to an unrestricted area and as a result fail to implement all requirements of Technical Specification Table 4.11.1 when procedures for implementing the radioactive liquid waste sampling and analyses program were prepared.

ANALYSIS OF EVENT

This event is considered reportable under the criteria of 10 CFR 50.73 (a)(2)(i)(B) as a literal violation of Technical Specifications, under 10 CFR 50.73(a)(2)(viii)(B) for releasing in excess of two times the limiting combined Maximum Permissible Concentration when averaged over a one hour period under 10 CFR 20.405 (a)(I)(v) for exceeding ten times the Technical Specification limit to an unrestricted area.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) D. C. Cook Nuclear Plant Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 3 1 5	LER NUMBER (6)			PAGE (3)		
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TEXT (If more space is required, use additional NRC Form 366A's) (17)

The only potential source of radioactive influent to the Turbine Building Sump System is secondary system leakage. The secondary system with highest concentration of radioactivity is the steam generator blowdown system. Based on these facts and the conservative assumption that iron-55, strontium-89 and strontium-90 release concentrations for the turbine room sump were equal to the maximum release concentrations for the steam generator blowdown flash tank, a comparison of steam generator blowdown flash tank quarterly composite data and turbine room sump daily composite data to 10 CFR 20 limits were performed for nine fifteen-day periods spanning from 1981 to 1987 when primary to secondary leakage was the greatest and when releases to the unrestricted areas occurred. This comparison identified: 1) on five occasions the limits of Technical Specification 3.11.1.1 were exceeded; 2) on three of the five occasions the reporting requirements of 10 CFR 50.72 (b)(2)(iv)(B) would have been applicable; and, 3) on one of the five occasions the reporting requirements of 10 CFR 20.405 (a)(1)(v) would have been applicable. As a result of the failure to recognize that releases via the Turbine Room Sump were to an unrestricted area the reporting requirements as previously identified were not met. The Maximum Permissible Concentration (MPC) fractions for the five occasions ranged from 1.03 to 10.09. It is our belief based on data reviewed that the regulatory limits of 10 CFR 20, Appendix B, when averaged over a year were not exceeded and therefore did not result in any impact on the health and safety of the public.

CORRECTIVE ACTION

To prevent recurrence procedures have been updated to list the required sampling frequencies and analysis for the Turbine Room Sump System, per Technical Specification Table 4.11-1.

FAILED COMPONENT IDENTIFICATION

None.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/88

FACILITY NAME (1)

D. C. Cook Nuclear Plant
Unit 1

DOCKET NUMBER (2)

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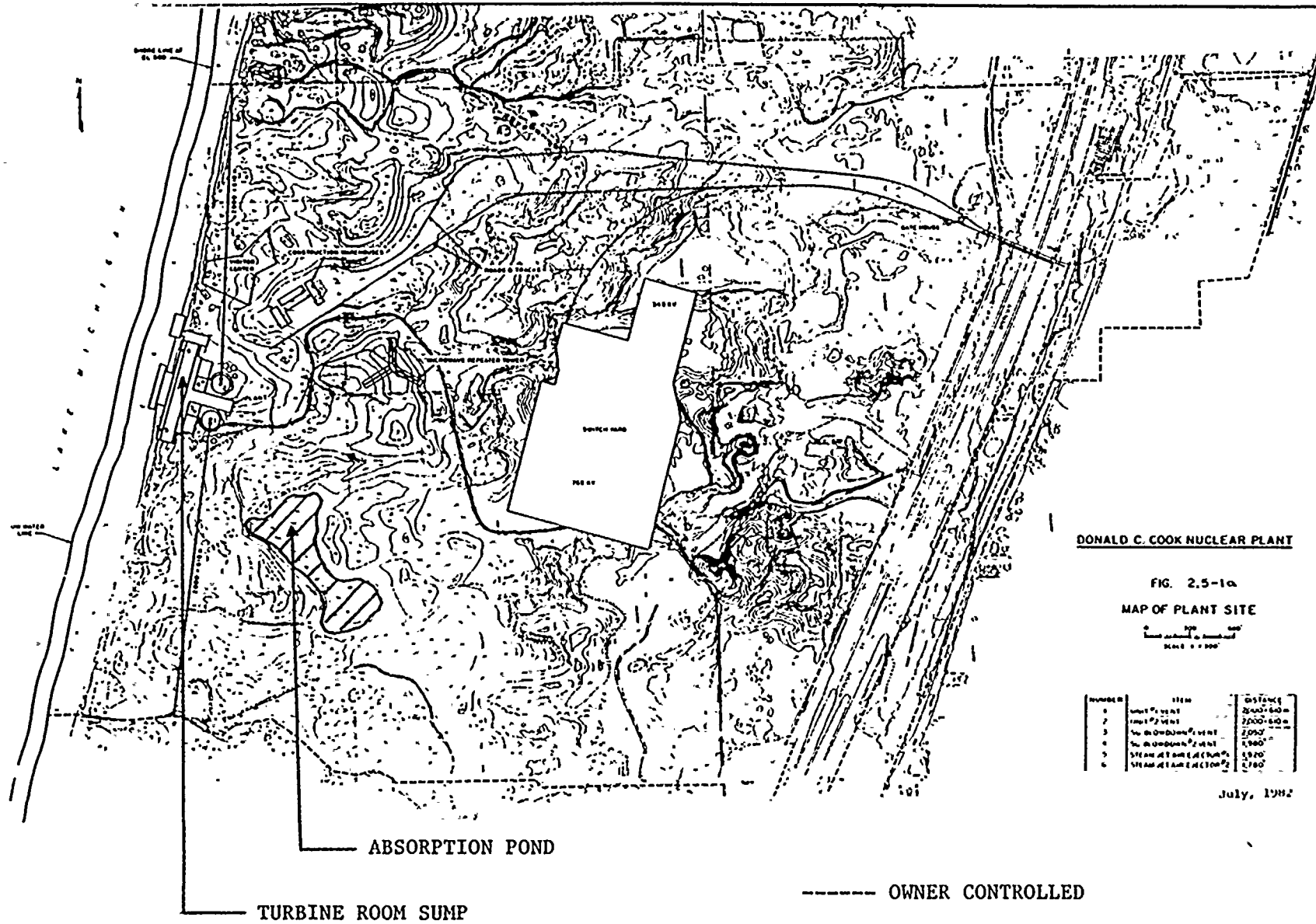
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NUMBER

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



Indiana Michigan
Power Company
Cook Nuclear Plant
P.O. Box 458
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616 465 5901



February 10, 1989

United States Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555


Operating License DPR-58
Docket No. 50-315

Document Control Manager:

In accordance with the criteria established by 10 CFR 50.73
entitled Licensee Event Reporting System, the following
report is being submitted:

88-012-01

Sincerely,


W. G. Smith, Jr.
Plant Manager

WGS:clw

Attachment

cc: D. H. Williams, Jr.
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