

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) D.C. COOK PLANT, UNIT - 1	DOCKET NUMBER (2) 0 5 0 0 0 3 1 5	PAGE (3) 1 OF 0 3
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TITLE (4)
INOPERABLE FIRE BARRIERS

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	6	0	4	8	5	8	5	0	2	7	0 0 0 7 0 3 8 5	0 5 0 0 0

OPERATING MODE (9) NA		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(e)	50.73(a)(2)(iv)	73.71(b)							
	20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)							
	20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)							
	20.405(a)(1)(iii)	X 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 J.F. STIETZEL - QUALITY CONTROL SUPERINTENDENT	TELEPHONE NUMBER AREA CODE 6 1 6 4 6 5 1 - 5 9 0 1
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COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDs	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDs

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO	EXPECTED SUBMISSION DATE (15)

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

ON JUNE 4, 1985, AT 0630 HOURS, WITH THE UNIT SHUTDOWN FOR REFUELING AND FUEL REMOVED FROM THE CORE, THREE EIGHT INCH DIAMETER FIRE PENETRATIONS WERE FOUND TO BE NONFUNCTIONAL (I.E., THE SILICONE FOAM HAD BEEN REMOVED). THE PENETRATIONS WERE LOCATED IN THE BORON INJECTION TANK ROOM (FIRE ZONES 38 AND 44N) AND CONSTITUTED INOPERABLE FIRE BARRIERS AS ADDRESSED IN TECHNICAL SPECIFICATION 3.7.10.

THE UNACCEPTABLE PENETRATION SEALS WERE DISCOVERED DURING HYDROSTATIC TESTING. A FIRE WATCH WAS ESTABLISHED WITHIN ONE HOUR AND THE OPENINGS SEALED ON JUNE 4, 1985, AT 1450 HOURS. THESE SEALS WERE LAST INSPECTED ON APRIL 24, 1985, BY THE PLANT QC DEPARTMENT AS REQUIRED BY THE EIGHTEEN MONTH TECHNICAL SPECIFICATION INSPECTION. INVESTIGATION COULD NOT ASCERTAIN WHY THE SILICONE SEALS HAD BEEN REMOVED SUBSEQUENT TO THIS DATE.

A SAFETY EVALUATION WAS PERFORMED FOR THIS EVENT AND CONCLUDED THAT THESE DEFICIENT PENETRATIONS DID NOT HAVE A SIGNIFICANT IMPACT ON THE SAFE SHUTDOWN OF THE PLANT OR ON EXISTING FIRE PROTECTION MEASURES.

THE UNIT NO. 2 BIT TANK ROOM WAS INSPECTED. SIMILAR OPENINGS DID NOT EXIST.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/85

FACILITY NAME (1) D.C. COOK PLANT, UNIT - 1	DOCKET NUMBER (2) 0 5 0 0 0 3 1 5 8 5 - 0 2 7 - 0 0 0 2 OF 0 3	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			

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

ON JUNE 4, 1985, AT 0630 HOURS, WITH THE UNIT SHUTDOWN FOR REFUELING AND FUEL REMOVED FROM THE CORE, THREE EIGHT INCH DIAMETER FIRE PENETRATIONS WERE FOUND TO BE NONFUNCTIONAL (I.E., THE SILICONE FOAM HAD BEEN REMOVED). THE PENETRATIONS WERE LOCATED IN THE BORON INJECTION TANK ROOM (FIRE ZONES 38 AND 44N) AND CONSTITUTED INOPERABLE FIRE BARRIERS AS ADDRESSED IN TECHNICAL SPECIFICATION 3.7.10.

THE UNACCEPTABLE PENETRATION SEALS WERE DISCOVERED DURING HYDROSTATIC TESTING. A FIRE WATCH WAS ESTABLISHED WITHIN ONE HOUR AND THE OPENINGS SEALED ON JUNE 4, 1985, AT 1450 HOURS. THESE SEALS WERE LAST INSPECTED ON APRIL 24, 1985, BY THE PLANT QC DEPARTMENT AS REQUIRED BY THE EIGHTEEN MONTH TECHNICAL SPECIFICATION INSPECTION. INVESTIGATION COULD NOT ASCERTAIN WHY THE SILICONE SEALS HAD BEEN REMOVED SUBSEQUENT TO THIS DATE.

THE UNIT NO. 2 BIT TANK ROOM WAS INSPECTED. SIMILAR OPENINGS DID NOT EXIST.

FIRE PROTECTION EVALUATION

THE BIT ROOM IS CONSTRUCTED OF POURED CONCRETE AND CONCRETE BLOCK WALLS WHICH EXTEND FROM FLOOR TO CEILING. THE NORTH WALL OF THE ROOM FORMS A LABYRINTH DESIGN AROUND A WIRE GATE OPENING. WITH THE EXCEPTION OF THE WIRE GATE, THE WALLS HAVE A THREE HOUR RATING. DUE TO THE HIGH RADIATION CLASSIFICATION GIVEN TO THE BIT ROOM, THE WIRE GATE IS LOCKED AND ACCESS TO THE AREA IS THEREFORE RESTRICTED.

A FIRE IS NOT LIKELY TO HAVE SPREAD THROUGH THE OPENINGS FROM FIRE ZONE 44N TO FIRE AREA 38 DUE TO THE LACK OF CONTINUITY OF FIXED COMBUSTIBLES IN THE BIT ROOM (WHICH HAS A ZERO COMBUSTIBLE LOADING). DUE TO THIS LACK OF FIXED COMBUSTIBLES, A FIRE ORIGINATING IN OR COMMUNICATING THROUGH THE BIT ROOM COULD ONLY OCCUR FROM TRANSIENT COMBUSTIBLES. A TRANSIENT FIRE IN THE BIT ROOM COULD SPREAD THROUGH THE OPENINGS INTO FIRE ZONE 44N. HOWEVER, DUE TO DETECTION AND SUPPRESSION SYSTEMS LOCATED IN BOTH AREAS, A FIRE WOULD HAVE BEEN CONTROLLED OR EXTINGUISHED WITHIN THESE AREAS.

BOTH FIRE AREA 38 AND FIRE ZONE 44N HAVE FIRE DETECTION SYSTEMS. FIRE AREA 38 HAS IONIZATION (SMOKE) AND INFRA-RED (FLAME) TYPE DETECTORS. FIRE ZONE 44N HAS ONLY IONIZATION TYPE DETECTORS. THE PRESENCE OF EITHER FIRE OR SMOKE IN THESE FIRE AREAS WOULD HAVE ACTUATED ALARMS IN THE CONTROL ROOM WHICH WOULD HAVE RESULTED IN NOTIFICATION OF THE FIRE BRIGADE TO BEGIN FIRE FIGHTING ACTIVITIES. MANUAL FIRE FIGHTING HOSE STATIONS AND PORTABLE FIRE EXTINGUISHERS WERE AVAILABLE FOR USE BY THE FIRE BRIGADE.

THE ABOVE DESCRIPTION OF THE POTENTIAL FIRE SPREAD THROUGH THE SUBJECT PENETRATION OPENINGS DOES NOT TAKE CREDIT FOR THE POSITIVE EFFECTS OF THE CO2 SYSTEM LOCATED IN FIRE AREA 38 OR THE AUTOMATIC PREACTION SPRINKLER SYSTEM IN FIRE ZONE 44N. THE CO2 SUPPRESSION SYSTEM WAS AVAILABLE FOR EITHER AUTOMATIC OR MANUAL ACTUATION. THIS SYSTEM IS ACTUATED BY THE PREVIOUSLY MENTIONED DETECTORS. HAD THE SYSTEM BEEN ACTUATED, THE OPENINGS WOULD HAVE HAD NO EFFECT ON THE CO2 SYSTEM'S ABILITY TO EXTINGUISH A FIRE IN THE ROOM VOLUME BELOW THE OPENING. FOR THE ROOM VOLUME ABOVE THE OPENING, LEAKAGE OF CO2 THROUGH THE OPENING WOULD HAVE REDUCED THE CONCENTRATION SOMEWHAT. IF ADEQUATE CONCENTRATION WAS NOT MAINTAINED FOR THE

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		8 5	- 0 2 7	- 0 0	0 3	OF	0 3

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LENGTH OF TIME REQUIRED FOR EXTINGUISHMENT, THE SYSTEM WOULD STILL CONTROL OR LIMIT THE SPREAD OF FIRE UNTIL ARRIVAL OF THE FIRE BRIGADE. THE PREACTION SPRINKLER SYSTEM INSTALLED FOR APPENDIX "R" COMPLIANCE WAS ALSO AVAILABLE FOR EITHER AUTOMATIC OR MANUAL ACTUATION SINCE BEING DECLARED OPERATIONAL IN JUNE OF 1984. THIS SYSTEM IS ACTUATED BY ITS DRY PILOT DETECTION SYSTEM (HEAT ACTUATED) WHICH IS INDEPENDENT OF THE ABOVE MENTIONED SMOKE DETECTION SYSTEM.

SAFE SHUTDOWN EVALUATION

BOTH FIRE AREA 38 AND FIRE ZONE 44N CONTAIN SAFE SHUTDOWN EQUIPMENT AND COMPONENTS. ENGINEERING PLANNING AND MANAGEMENT, INC., HAS CONFIRMED THAT A SINGLE FIRE INVOLVING BOTH FIRE AREA 38 AND FIRE ZONE 44N WOULD NOT AFFECT THE SAFE SHUTDOWN OF THE PLANT. ALTERNATE SHUTDOWN CAPABILITY WOULD BE MAINTAINED OUTSIDE OF THESE AREAS.

PREVIOUS OCCURRENCES OF A SIMILAR NATURE INCLUDE: 315/85-24, 315/85-18 AND 316/85-6.



INDIANA & MICHIGAN ELECTRIC COMPANY

DONALD C. COOK NUCLEAR PLANT
P.O. Box 458, Bridgman, Michigan 49106
(616) 465-5901

July 3, 1985

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

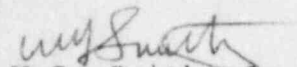
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Docket No. 50-315

Document Control Manager:

In accordance with the criteria established by 10CFR50.73
entitled Licensee Event Reporting System, the following
report/s are being submitted:

RO 85-027-0

Sincerely,


W.G. Smith, Jr.
Plant Manager

/cbm

Attachment

cc: John E. Dolan
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