

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) DONALD C. COOK, UNIT 1 DOCKET NUMBER (2) 0510003115 PAGE (3) 1 OF 14

TITLE (4) INOPERABLE FIRE DOORS EXCEEDING THE LIMITING CONDITION FOR OPERATION

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	0	6	8	4	8	4	0	3	3	0	1	0	2	1	1	8	5	D. C. COOK UNIT 2	0	5	1	0	0	3	1	1	6	
																					0	5	1	0	0				

OPERATING MODE (9) 1

POWER LEVEL (10) 11010

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 50. (Check one or more of the following) (11)

20.402(b)	20.406(e)	90.73(a)(2)(iv)	73.71(b)
20.406(a)(1)(i)	90.38(a)(1)	90.73(a)(2)(v)	73.71(c)
20.406(a)(1)(ii)	90.38(a)(2)	90.73(a)(2)(vi)	OTHER (Specify in Abstract below and in Text, NRC Form 368A)
20.406(a)(1)(iii)	X 90.73(a)(2)(i)	90.73(a)(2)(vii)(A)	
20.406(a)(1)(iv)	90.73(a)(2)(ii)	90.73(a)(2)(vii)(B)	
20.406(a)(1)(v)	90.73(a)(2)(iii)	90.73(a)(2)(viii)	

LICENSEE CONTACT FOR THIS LER (12)

NAME N. C. WILLIAMS - MAINTENANCE DEPARTMENT SUPERINTENDENT TELEPHONE NUMBER 6116 46151-15191011

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
A	K	Q	DRK	146	-	N			

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)

THIS IS A REVISION TO LER 84-033 PREVIOUSLY SUBMITTED ON JANUARY 4, 1985. THE PURPOSE OF THIS REVISION IS TO INCLUDE THE SAFETY ASSESSMENT OF THE EVENT.

ON 12/6/84, WITH UNITS 1 AND 2 AT 100 PERCENT POWER, IT WAS DISCOVERED DURING A POST-MAINTENANCE REVIEW OF TECHNICAL SPECIFICATION FIRE DOOR SURVEILLANCE TEST AND REPAIR DOCUMENTATION THAT ROLL-UP FIRE DOORS #313 (UNIT 1 PRESSURIZER HEATER TRANSFORMER ROOM), #343 (UNIT 1 4KV SWITCHGEAR ROOM) AND #314 (UNIT 2 PRESSURIZER HEATER TRANSFORMER ROOM) HAD NOT MET THE SURVEILLANCE TEST PROCEDURE ACCEPTANCE CRITERIA. THE DOORS HAD NOT BEEN DECLARED INOPERABLE AND THE REQUIREMENTS OF TECHNICAL SPECIFICATION 3.7.10 ACTION ITEM (A) HAD NOT BEEN MET DUE TO A PERSONNEL ERROR IN INTERPRETING THE SURVEILLANCE TEST PROCEDURE ACCEPTANCE CRITERIA. FIRE DOORS 313 AND 314 HAD BEEN IN NON-COMPLIANCE FOR 13 DAYS AND DOOR 343 FOR 5 DAYS.

TO PREVENT RECURRENCE THE INSPECTOR INVOLVED WITH THE EVENT HAS BEEN REINSTRUCTED, AND IS NOW KNOWLEDGEABLE OF FIRE DOOR OPERABILITY

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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TEXT (If more space is required, use additional NRC Form 388A's) (17)

THIS IS A REVISION TO LER 84-033 SUBMITTED ON JANUARY 4, 1985.

ON 12/06/84, WITH UNIT 1 AND UNIT 2 AT 100 PERCENT POWER, A POST-MAINTENANCE REVIEW OF THE SEMI-ANNUAL SURVEILLANCE TEST OF TECHNICAL SPECIFICATION-RELATED FIRE DOORS (DR) AND REPAIR DOCUMENTATION INDICATED THAT NON-COMPLIANCE WITH RESPECT TO TECHNICAL SPECIFICATION 3.7.10 MAY HAVE OCCURRED BETWEEN THE TIME THAT THE SEMI-ANNUAL TEST WAS PERFORMED AND THE TIME THAT REPAIRS WERE EFFECTED TO CORRECT DEFICIENCIES IDENTIFIED DURING THE TEST. UNIT 1 AND 2 WERE IN MODE 1 AND AT VARIOUS POWER LEVELS BETWEEN INITIAL TESTING AND REPAIRS.

INVESTIGATION OF THE DETAILS OF THE TESTING ESTABLISHED THE FOLLOWING SEQUENCE OF EVENTS. WHILE PERFORMING SURVEILLANCE TEST PROCEDURE (12MHP4030.STP.027) ON TECHNICAL SPECIFICATION RELATED FIRE DOORS, THREE OVERHEAD ROLLING STEEL FIRE DOORS WERE DECLARED OPERABLE WHEN IN FACT THE THREE DOORS DID NOT CLOSE COMPLETELY AND SHOULD HAVE BEEN DECLARED INOPERABLE IN ACCORDANCE WITH THE ACCEPTANCE CRITERIA OF THE PROCEDURE. THE REQUIREMENTS OF ACTION STATEMENT (A) OF TECHNICAL SPECIFICATION 3.7.10 WERE NOT MET BECAUSE THE INSPECTOR JUDGED INCORRECTLY THAT THE THREE DOORS WERE OPERABLE DESPITE THEIR FAILURE TO FULLY CLOSE.

CLASS "A" ROLLING STEEL FIRE DOORS 313 AND 314 ARE THERMALLY ACTIVATED AND LEAD TO UNIT 1 AND UNIT 2 PRESSURIZER HEATER TRANSFORMER ROOMS AT ELEVATION 591. CLASS "A" ROLLING STEEL FIRE DOOR 343 IS CARDOX (KQ) ACTIVATED AND LEADS TO UNIT 1 ELECTRICAL SWITCHGEAR ROOM AT ELEVATION 609. SURVEILLANCE TEST OF FIRE DOORS 313 AND 314 ON 11/21/84 INDICATED THAT THE DOORS REMAINED OPEN APPROXIMATELY 5 TO 10 INCHES WHEN TESTED USING THE AUTOMATIC RELEASE MECHANISM. FIRE DOOR 343 WAS INITIALLY IN THE FULLY CLOSED POSITION PRIOR TO TESTING ON 11/28/84 WITH A TAG STATING THAT THE OPERATIONS SHIFT SUPERVISOR OR THE SECURITY DEPARTMENT WAS TO BE CONTACTED IF THE DOOR NEEDED TO BE OPENED. AFTER CONTACTING THE SECURITY DEPARTMENT THE DOOR WAS TESTED. IT REMAINED OPEN APPROXIMATELY 5 INCHES WHEN ACTUATED BY THE AUTOMATIC RELEASE MECHANISM. FOLLOWING THE TEST THE DOOR WAS LEFT FULLY CLOSED AND WITH THE TAG INTACT. THE SURVEILLANCE TESTS ON ALL THREE FIRE DOORS DEMONSTRATED THAT THE DOORS DID NOT FULLY CLOSE, BUT THE INSPECTOR DID NOT DECLARE THEM INOPERABLE ALTHOUGH HE RECOGNIZED THE NEED TO EFFECT REPAIRS. ON 12/03/84 THE SAME INSPECTOR REQUESTED THAT REPAIRS BE PERFORMED ON THE SUBJECT DOORS. SURVEILLANCE TESTS WERE CONDUCTED AGAIN ON 12/04/84, FOLLOWING REPAIRS TO THE DOORS, AND THE ACCEPTANCE CRITERIA WERE SATISFIED. FIRE DOORS 313 AND 314 WERE INOPERABLE FOR 13 DAYS. FIRE DOOR 343 WAS INOPERABLE FOR 6 DAYS. ACTION REQUIREMENTS OF TECHNICAL SPECIFICATION 3.7.10 WERE NOT MET DURING THE PERIODS OF INOPERABILITY. THIS NON-COMPLIANCE WAS DUE TO PERSONNEL ERROR ON THE PART OF THE INSPECTOR INTERPRETING INCORRECTLY THE SURVEILLANCE TEST PROCEDURE ACCEPTANCE CRITERIA.

THE EVENT HAS BEEN DISCUSSED AT LENGTH WITH THE INSPECTOR AND HE NOW HAS A CLEAR UNDERSTANDING OF THE ACCEPTANCE CRITERIA OF THE PROCEDURE. THE ACTIONS DESCRIBED ABOVE CORRECTED THE PROBLEM AND SHOULD PREVENT RECURRENCE.

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

A SAFETY EVALUATION WAS PERFORMED THAT ADDRESSES THE INOPERABLE FIRE DOORS. THE EVALUATION CONCLUDED THAT ADEQUATE FIRE PROTECTION EXISTED IN ALL INSTANCES IN SPITE OF THE INOPERABLE FIRE DOORS. ON THE BASIS OF THE EVALUATION, PUBLIC HEALTH AND SAFETY WERE NOT AFFECTED.

THE FOLLOWING INFORMATION DETAILS THE EVALUATION PERFORMED TO ASSESS THE SAFETY CONSEQUENCES OF THIS EVENT.

FIRE DOORS NOS. 313 AND 314:

FIRE DOOR NO. 313 PROVIDES A FIRE BARRIER SEPARATION BETWEEN FIRE AREA 14 (PRESSURIZER HEATER TRANSFORMER ROOM UNIT 1) AND FIRE AREA 79 (TURBINE ROOM UNIT 1).

FIRE DOOR NO. 314 PROVIDES A FIRE BARRIER SEPARATION BETWEEN FIRE AREA 20 (PRESSURIZER HEATER TRANSFORMER ROOM UNIT 2) AND FIRE AREA 85 (TURBINE ROOM UNIT 2).

FIRE PROTECTION EVALUATION

WE HAVE EVALUATED BOTH FIRE DOORS NOS. 313 AND 314 TO DETERMINE THE POSSIBILITY OF A FIRE PROPAGATING FROM EITHER SIDE OF THE DOOR TO THE OTHER SIDE. SINCE THE FIRE AREAS ASSOCIATED WITH THESE DOORS ARE MIRROR IMAGES TO EACH OTHER, WE ARE COMBINING THE EVALUATION. THE CONCLUSIONS DRAWN ARE APPLICABLE TO EACH.

THE INFORMATION IN THIS FIRE PROTECTION EVALUATION OF THE FACILITY WAS COMPILED FROM INFORMATION IN THE MARCH 31, 1977 "FIRE HAZARDS ANALYSIS"; THE MARCH 1983 "SAFE SHUTDOWN CAPABILITY ASSESSMENT AND PROPOSED MODIFICATIONS"; AND INFORMATION OBTAINED BY A VISUAL INSPECTION OF THE AREA.

IT IS OUR OPINION THAT THE FIRE PROTECTION OF THE FACILITY WAS NOT HAMPERED BY THE INOPERABLE FIRE DOOR NOS. 313 AND 314.

WE FEEL THAT THE FIRE WOULD NOT PROPAGATE OUT OF FIRE AREA 14 OR 20 BECAUSE; 1) THE DOOR WOULD HAVE CLOSED TO AT LEAST WITHIN 10 INCHES OF THE FLOOR; 2) THE COMBUSTIBLE LOADING OF THESE FIRE AREAS IS EXTREMELY LOW AND FIRE SEVERITY IS CALCULATED TO BE LESS THAN FIVE MINUTES; 3) THE ASKAREL INSULATING FLUID IN THE TRANSFORMERS IS CONSIDERED TO BE NON-COMBUSTIBLE UNDER NORMAL CONDITIONS; 4) PASSIVE FIRE

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TEXT (If more space is required, use additional NRC Form 388A's) (17)

PROTECTION IS PROVIDED BY CURBING; 5) THE AUTOMATIC SPRINKLER PROTECTION PROVIDED IN THE TURBINE BUILDING ADJACENT FIRE AREAS 79 AND 85 WOULD STOP A FIRE FROM SPREADING OUTSIDE OF FIRE AREA 14 OR 20; 6) MANUAL FIRE FIGHTING HOSE STATIONS AND PORTABLE FIRE EXTINGUISHERS ARE AVAILABLE FOR USE BY THE FIRE BRIGADE.

WE FEEL A FIRE WOULD NOT PROPAGATE OUT OF FIRE AREA 79 OR 85 BECAUSE; 1) THE DOOR WOULD HAVE CLOSED TO AT LEAST WITHIN 10 INCHES OF THE FLOOR; 2) THE COMBUSTIBLE LOADING IN THESE AREAS ADJACENT TO THE SUBJECT FIRE DOORS IS EXTREMELY LOW; 3) ANY FIRE IN THIS AREA WOULD BE SUPPRESSED BY THE EXISTING AUTOMATIC SPRINKLER SYSTEM; 4) AN ALARM WOULD BE SET OFF IN THE CONTROL ROOM WHEN THE SPRINKLER SYSTEM ACTIVATED; 5) MANUAL FIRE FIGHTING AND HOSE STATIONS ARE READILY AVAILABLE FOR USE BY THE FIRE BRIGADE.

FIRE DOOR NO. 343

FIRE DOOR NO. 343 PROVIDES A FIRE BARRIER SEPARATION BETWEEN FIRE AREA 42 (TRANSFORMER, CONTROL ROD DRIVE, MCC, AND BATTERY ROOM UNIT 1) AND FIRE AREA 90 (TURBINE ROOM UNIT 1).

FIRE PROTECTION EVALUATION

IT IS OUR OPINION THAT THE FIRE PROTECTION OF THE FACILITY WAS NOT HAMPERED BY THE INOPERABLE FIRE DOOR NO. 343 EVENT. AFTER THE SURVEILLANCE TEST, THE DOOR WAS RETURNED TO THE CLOSED POSITION. SINCE THE DOOR WAS TAGGED WITH INSTRUCTIONS TO NOTIFY THE SHIFT SUPERVISOR OR SECURITY, THE DOOR WOULD NOT HAVE BEEN OPENED WITHOUT A GUARD. THE DOOR WOULD EITHER BE CLOSED OR A GUARD WOULD HAVE BEEN PROVIDED AT THE DOOR. HAD A FIRE OCCURRED WITH THE DOOR IN THE OPEN POSITION, PLANT PROCEDURES REQUIRE THE GUARD TO INITIATE IMMEDIATE FIRE PROTECTION ACTIONS. THE DOOR WOULD HAVE BEEN IN THE CLOSED POSITION OR ABLE TO BE IMMEDIATELY CLOSED. THEREFORE, THE FIRE DOOR IS SERVING ITS PURPOSE AS A FIRE BARRIER TO RETARD THE PROPAGATION OF FIRE AND ALSO WOULD HAVE HAD NO ADVERSE EFFECT ON MAINTAINING THE CO<sub>2</sub> CONCENTRATION.

THIS CONCLUDES OUR INVESTIGATION INTO THIS EVENT.



**INDIANA & MICHIGAN ELECTRIC COMPANY**

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

February 11, 1985

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

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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 84-033-1

Sincerely,

for W.G. Smith, Jr.  
Plant Manager

/cbm

Attachment

cc: John E. Dolan  
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