UPDATED LER
PREVIOUS REPORT DATE:
03/30/83

LICENSEE EVENT REPORT

CONTROL BLOCK: | | | | | | | (1)

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

0 1 | M I D C C 1 (2) | 0 0 - 0 0 0 0 0 - 0 0 (3) | 4 1 1 1 1 (4) | | (5)
LICENSEE CODE | LICENSE NUMBER | LICENSE TYPE | CAT

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0 1 | REPORT SOURCE L (6) | 0 5 0 0 0 3 1 5 (7) | 0 2 1 1 8 3 (8) | 0 9 2 8 8 4 (9)
DOCKET NUMBER | EVENT DATE | REPORT DATE

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 | ON FEBRUARY 11, 1983, AT 0900 HRS. A PLANNED GAS SAMPLING EVOLUTION WHICH PRODUCED AN
0 3 | EXPECTED GAS RELEASE OF UNEXPECTED MAGNITUDE WAS DETECTED BY AN ELEVATED UNIT 1 AND
0 4 | UNIT 2 VENT STACK GASEOUS MONITOR (1R-26 and 2R-26 RESPECTIVELY) READING. THIS EVENT
0 5 | CONTINUED UNTIL APPROXIMATELY 1040 HRS. ON FEBRUARY 11, 1983. A SECOND EVENT (UNEXPECT-
0 6 | ED, THEREFORE, UNPLANNED) OCCURRED AT 1340 HRS. ON FEBRUARY 11, 1983, WHICH WAS DETECTED
0 7 | BY AN ELEVATED UNIT 2 VENT STACK GASEOUS MONITOR (2R-26) READING. THIS EVENT CONTINUED
0 8 | UNTIL APPROXIMATELY 1530 HRS. ON FEBRUARY 11, 1983. (SEE ATTACHED SUPPLEMENT)

0 9 | SYSTEM CODE: X X (11) | CAUSE CODE: A (12) | CAUSE SUBCODE: X (13) | COMPONENT CODE: Z Z Z Z Z Z (14) | COMP SUBCODE: Z (15) | VALVE SUBCODE: Z (16)

(17) LER/RO REPORT NUMBER | EVENT YEAR: 8 3 | — | SEQUENTIAL REPORT NO.: 0 1 0 | / | OCCURRENCE CODE: 0 4 | REPORT TYPE: X | — | REVISION NO.: 2

ACTION TAKEN: X (18) | FUTURE ACTION: Z (19) | EFFECT ON PLANT: Z (20) | SHUTDOWN METHOD: Z (21) | HOURS (22): 0 0 0 0 | ATTACHMENT SUBMITTED: Y (23) | NPRD-4 FORM SUB.: N (24) | PRIME COMP. SUPPLIER: Z (25) | COMPONENT MANUFACTURER: Z 9 9 9

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 | DURING SAMPLING OF THE UNIT 1 VOLUME CONTROL TANK (VCT) GAS SPACE, THE SAMPLE LINE
1 1 | DRAIN VALVE (NS-186) LOCATED IN THE NUCLEAR SAMPLING ROOM WAS INADVERTENTLY LEFT IN
1 2 | THE OPEN POSITION. THIS ALLOWED GAS TO GO FROM NS-186 THROUGH THE CLEAN SUMP TANK TO
1 3 | THE WASTE HOLDUP TANKS CONTINUING THROUGH THE AUXILIARY BUILDING VENTILATION SYSTEM TO
1 4 | THE UNIT VENT STACKS. (SEE ATTACHED SUPPLEMENT)

1 5 | FACILITY STATUS: E (28) | % POWER: 1 0 0 (29) | OTHER STATUS (30): NA | METHOD OF DISCOVERY: A (31) | DISCOVERY DESCRIPTION (32): RADIATION MONITORING ALARM

1 6 | ACTIVITY RELEASED: G (33) | CONTENT OF RELEASE: N (34) | AMOUNT OF ACTIVITY (35): 37.7 ci Xe-133 | LOCATION OF RELEASE (36): AUXILIARY BUILDING VENT TO ATMOSPHERE

PERSONNEL EXPOSURES
1 7 | NUMBER: 0 0 0 (37) | TYPE: Z (38) | DESCRIPTION (39): NA

PERSONNEL INJURIES
1 8 | NUMBER: 0 0 0 (40) | DESCRIPTION (41): NA

8410100375 840928
PDR ADOCK 05000315
S PDR

LOSS OF OR DAMAGE TO FACILITY (43)
1 9 | TYPE: Z (42) | DESCRIPTION: NA

PUBLICITY
2 0 | ISSUED: Y (44) | DESCRIPTION (45): PRESS RELEASE TO LOCAL NEWSPAPER 2/12/83

NRC USE ONLY

NAME OF PREPARER L. G. HOLMES (616) 465-5901

ATTACHMENT TO LER #83-010/04X-2

SUPPLEMENT TO EVENT DESCRIPTION

ON FEBRUARY 11, 1983, AT 0900 HOURS A PLANNED GAS SAMPLING EVOLUTION WHICH PRODUCED AN EXPECTED GAS RELEASE OF UNEXPECTED MAGNITUDE WAS DETECTED BY AN ELEVATED UNIT 1 AND UNIT 2 VENT STACK GASEOUS MONITOR (1R-26 AND 2R-26 RESPECTIVELY) READING. THIS EVENT CONTINUED UNTIL APPROXIMATELY 1040 HOURS ON FEBRUARY 11, 1983. A SECOND EVENT (UNEXPECTED, THEREFORE, UNPLANNED) OCCURRED AT 1340 HOURS ON FEBRUARY 11, 1983, WHICH WAS DETECTED BY AN ELEVATED UNIT 2 VENT STACK GASEOUS MONITOR (2R-26) READING. THIS EVENT CONTINUED UNTIL APPROXIMATELY 1530 HOURS ON FEBRUARY 11, 1983. DURING THESE TIME PERIODS, A TOTAL OF 37.7 Ci WAS RELEASED AT A RATE OF 2.86 E-3 Ci/SEC, WHICH IS 4.81% OF TECHNICAL SPECIFICATION APPENDIX B, SECTION 2.1.2.a(1). CONSERVATIVELY ESTIMATING THAT BOTH UNIT'S DETECTORS INDICATED THE MAXIMUM RELEASE RATE SIMULTANEOUSLY, THE MAXIMUM TOTAL RELEASE RATE WAS 5.48 E-2 Ci/SEC WHICH IS 92.39% OF TECHNICAL SPECIFICATION APPENDIX B, SECTION 2.1.3.a(1). THIS OCCURRED WITHOUT THE SAMPLING AND ANALYTICAL REQUIREMENTS OF TECHNICAL SPECIFICATION APPENDIX B 2.4.4.E.

SUPPLEMENT TO CAUSE DESCRIPTION

DURING SAMPLING OF THE UNIT 1 VOLUME CONTROL TANK (VCT) GAS SPACE, THE SAMPLE LINE DRAIN VALVE NS-186 LOCATED IN THE NUCLEAR SAMPLING ROOM WAS INADVERTENTLY LEFT IN THE OPEN POSITION, WHEN AT THIS POINT IN THE PROCESS IT WAS PROCEDURALLY REQUIRED TO BE CLOSED. THIS ALLOWED GAS TO GO FROM NS-186 THROUGH THE CLEAN SUMP TANK TO THE WASTE HOLDUP TANKS CONTINUING THROUGH THE AUXILIARY BUILDING VENTILATION SYSTEM TO THE UNIT VENT STACK. WHILE VALVING IN THE SAMPLE

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SUPPLEMENT TO CAUSE DESCRIPTION, CONTINUED

CONTAINER A PIECE OF PLASTIC TUBING USED TO CONNECT THE SAMPLE CONTAINER WITH THE SAMPLE PIPING SEPARATED AT THE CONNECTION CAUSING ADDITIONAL RADIOGAS TO BE DISCHARGED TO THE UNIT 1 VENT STACK. THE SAMPLE POINT ROOT VALVE (1-CS-374) WAS CLOSED, TO ISOLATE THE RELEASE. AT APPROXIMATELY 1340 HOURS 1-CS-374 WAS OPENED, THE NORMAL OPERATING POSITION, WHICH CAUSED THE SECOND EVENT TO OCCUR, SINCE NS-186 WAS INADVERTENTLY LEFT IN THE OPEN POSITION. IMMEDIATELY FOLLOWING DETECTION OF THE SECOND EVENT 1-CS-374 WAS RECLOSED. AT APPROXIMATELY 1855 HOURS ON FEBRUARY 11, 1983, NS-186 WAS DISCOVERED OPEN AND PLACED IN THE CLOSED POSITION. VALVE 1-CS-374 WAS THEN REOPENED WITH NO GASEOUS RELEASE BEING DETECTED.

TO PREVENT RECURRENCE OF THIS EVENT, THE FOLLOWING MEASURES HAVE BEEN TAKEN:

1) THE PERSONNEL INVOLVED HAVE BEEN INSTRUCTED IN THE PROPER METHOD OF SAMPLING THE VCT GAS SPACE.
2) ADMINISTRATIVE CONTROLS HAVE BEEN IMPLEMENTED REQUIRING THAT THE PROCEDURE FOR SAMPLING THE VCT GAS SPACE BE IN HAND DURING THE SAMPLING PROCESS.
3) THE CHEMICAL SECTION SAMPLE PROCEDURES WERE REVIEWED TO INSURE THAT EACH PROCEDURE REFLECTED THE CURRENT AND CORRECT METHOD OF SAMPLING.
4) A PRECAUTIONARY NOTE WAS ADDED TO THE SAMPLING PROCEDURE STATING THAT VCT SAMPLES WILL NOT BE TAKEN FOR TESTING OR TRAINING PURPOSES AND THAT THE VCT WILL ONLY BE SAMPLED BY DIRECTION OF THE PLANT CHEMICAL SUPERVISOR.
5) THE GENERAL CONDITION OF THE SAMPLING SYSTEM WAS IMPROVED BY: VERIFYING THAT ALL SAMPLE VALVES IN THE NUCLEAR SAMPLE ROOM HAVE IDENTIFICATION TAGS: AND REPLACING MISSING VALVE HANDLES ON SAMPLE VALVES.

ATTACHMENT TO LER #83-010/04X-2

IE INSPECTION REPORT 50-315/83-03, 50-316/83-03, COVERING THE SUBJECT OF THIS LER, LISTED SEVERAL UNRESOLVED ITEMS. THIS UPDATED LER CLOSES ALL UNRESOLVED ITEMS. THESE ARE DESCRIBED BELOW:

UNRESOLVED ITEM - 315/83-03-01; 316/83-03-01

NO PROCEDURE CHANGE HAD BEEN APPROVED TO REFLECT THE INOPERABLE FLOW MEASURING DEVICE OR USE OF THE MARINELLI SAMPLE VESSEL.

STATUS - SEE PREVENTIVE MEASURE NO. 2. THE DEFECTIVE FLOW INSTRUMENT HAS BEEN REPLACED. PROCEDURAL CHANGES HAVE BEEN MADE TO ALLOW THE USE OF THE MARINELLI SAMPLE VESSEL. (RESOLVED AND INCLUDED FOR REFERENCE).

UNRESOLVED ITEM - 315/83-03-02; 316/83-03-02

FAILURE TO OPERATE THE SAMPLING SYSTEM VALVES IN ACCORDANCE WITH PROCEDURE 12 THP 6020 LAB.038.

STATUS - SEE PREVENTIVE MEASURE NO. 2 (RESOLVED AND INCLUDED FOR REFERENCE).

UNRESOLVED ITEM - 315/83-03-03; 316/83-03-03

THE NEW GASEOUS EFFLUENT MONITORS WHICH HAVE BETA SCINTILLATOR DETECTORS RATHER THAN G-M DETECTORS HAVE BEEN INSTALLED. VRS-1500 AND VRS-2500 WERE INSTALLED ON MAY 31, 1984. IN ADDITION TO NEW EBERLINE SYSTEM, THE PROCEDURE 12 THP 6010.RAD.584 DATED JUNE 8, 1983 SPECIFIES A TWO POINT LINEARITY CHECK.

UNRESOLVED ITEM 315/83-03-04; 316/83-03-04

LOSS OF THE UNIT 2 P-250 PRINTOUT COVERING THE PERIOD OF THE RELEASE. THE P-250 PRINTOUT IS NOW RECORDED ON MAG TAPE FOR PERMANENT RECORD OF RELEASE DATA.

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UNRESOLVED ITEM - 315/83-03-05; 316/83-03-05

FAILURE TO CLASSIFY A RELEASE AS AN UNUSUAL EVENT, AS REQUIRED BY EMERGENCY PLAN IMPLEMENTING PROCEDURE, WHEN INITIAL INDICATIONS IN THE CONTROL ROOM WERE THAT THE TECHNICAL SPECIFICATION RELEASE RATE LIMIT HAD BEEN EXCEEDED. THE POTENTIAL FOR REPORTABILITY WAS IDENTIFIED DURING NRC REVIEW OF THE EVENT. THE REASON THIS POTENTIAL WAS NOT DISCOVERED DURING PLANT REVIEW WAS FAILURE TO RECOGNIZE THAT RELEASES FROM BOTH UNIT VENTS HAD TO BE CONSIDERED TOGETHER IN CLASSIFYING A RELEASE. SUBSEQUENT ANALYSIS DETERMINED THAT THE RELEASE DID NOT EXCEED THE RELEASE RATE LIMIT IMPOSED BY THE TECHNICAL SPECIFICATIONS AND THEREFORE, DID NOT REQUIRE REPORTING AS AN UNUSUAL EVENT. BOTH AN OPERATIONS MEMO AND A CHANGE TO PROCEDURE PMP 2080 EPP.001, EMERGENCY PLAN IMPLEMENTING PROCEDURE, WERE ISSUED TO ENSURE OPERATING PERSONNEL ARE AWARE THAT THE TOTAL OF ALL RELEASE MONITORS NEEDS TO BE CONSIDERED WHEN CLASSIFYING A RELEASE.

UNRESOLVED ITEM - 315/83-03-06; 316/83-03-06

THE INSPECTORS NOTED SEVERAL PROBLEMS WITH THE GENERAL CONDITION OF THE NUCLEAR SAMPLING SYSTEM.

STATUS - ADDRESSED IN THE BODY OF THE LER (RESOLVED AND INCLUDED FOR REFERENCE) (REFER TO PREVENTIVE MEASURE ITEMS).

UNRESOLVED ITEM - 315/83-03-07; 316/83-03-07

DURING THE RELEASE, AT LEAST TWO CONTINUOUS AIR MONITORS (CAMS) ALARMED. THE GAS ASSOCIATED WITH THIS RELEASE SHOULD HAVE REMAINED CONTAINED IN THE SAMPLE SYSTEM, WASTE DRAIN SYSTEM, AND AUXILIARY BUILDING VENTILATION SYSTEM. A LOSS OF A FLOOR DRAIN LOOP SEAL MAY HAVE BEEN THE SOURCE OF GAS IN THE AUXILIARY BUILDING THAT CAUSED THE CAM ALARMS. AFTER A

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UNRESOLVED ITEM - 315/83-03-07; 316/83-03-07 CONTINUED

THOROUGH INVESTIGATION OF THE WASTE DISPOSAL DRAINAGE SYSTEM, IT WAS DETERMINED THAT THE SYSTEM IS CLOSED ENDING AT THE CLEAN SUMP TANK. THERE IS A "LOOP SEAL" IN THE CLEAN SUMP TANK OFF GAS OVERFLOW PIPING TO A FLOOR DRAIN. HOWEVER, THIS OFF GAS IS DIRECTED TO THE AUXILIARY BUILDING VENT, WHICH IS A NEGATIVE PRESSURE SYSTEM. NO OTHER "LOOP SEALS" WERE FOUND IN THIS SYSTEM FOR THE 587' ELEVATION. THE FLOOR DRAINS ON THE 587' ELEVATION CONTAINS NO "LOOP SEALS" AND THEY ARE ALL ROUTED IN THE STATION DRAINAGE DIRTY SUMP TANK. THERE ARE NO DIRECT OPEN CONNECTIONS, OTHER THAN THE FLOOR DRAINS, BETWEEN THESE TWO SYSTEMS THAT WOULD ALLOW GAS TO ESCAPE INTO THE AUXILIARY BUILDING. IN CONCLUSION, IT IS BELIEVED THAT THE CAMS ALARMED DUE TO RADIOACTIVE GAS FROM THE VCT SAMPLING COMING THROUGH THE FLOOR DRAINS.

American Electric Power System
INDIANA & MICHIGAN ELECTRIC COMPANY
DONALD C. COOK NUCLEAR PLANT
P.O. Box 458, Bridgman, Michigan 49106
(616) 465-5901

September 28, 1984

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 10CFR50.73 entitled Licensee Event Reporting System, the following report/s are being submitted:

RO 83-010/04X-2

Sincerely,

W.G. Smith, Jr.
Plant Manager

/cbm

Attachment

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