

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)
DONALD C. COOK NUCLEAR PLANT UNIT 1

DOCKET NUMBER (2)

0 5 0 0 0 3 1 5 1 OF 0 3

TITLE (4)

DOSE EQUIVALENT IODINE-131

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	4	0	6	8	5	8	5	0	1	0	0	5	0	0	0	0	0
0	4	0	6	8	5	8	5	0	1	0	0	5	0	0	0	0	0

OPERATING MODE (9)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)																						
3	<table border="1"><tr><td>20.402(b)</td><td>20.405(c)</td><td>50.73(a)(2)(iv)</td><td>73.71(b)</td></tr><tr><td>20.405(a)(1)(i)</td><td>50.38(c)(1)</td><td>50.73(a)(2)(v)</td><td>73.71(c)</td></tr><tr><td>20.405(a)(1)(ii)</td><td>50.38(c)(2)</td><td>50.73(a)(2)(vi)</td><td>X OTHER (Specify in Abstract below and in Text, NRC Form 305A)</td></tr><tr><td>20.405(a)(1)(iii)</td><td>50.73(a)(2)(i)</td><td>50.73(a)(2)(viii)(A)</td><td rowspan="3">SPECIAL</td></tr><tr><td>20.405(a)(1)(iv)</td><td>50.73(a)(2)(ii)</td><td>50.73(a)(2)(viii)(B)</td></tr><tr><td>20.405(a)(1)(v)</td><td>50.73(a)(2)(iii)</td><td>50.73(a)(2)(ix)</td></tr></table>	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)	X OTHER (Specify in Abstract below and in Text, NRC Form 305A)	20.405(a)(1)(iii)	50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	SPECIAL	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)(ix)
20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)																				
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20.405(a)(1)(iii)	50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	SPECIAL																				
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)(ix)																					

LICENSEE CONTACT FOR THIS LER (12)
NAME
T. A. KRIESEL - 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 NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR			
X YES (If yes, complete EXPECTED SUBMISSION DATE)	NO		0	9	3	0	8	5

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

THROUGH REEVALUATION OF REPORTING REQUIREMENTS, THIS SPECIAL REPORT IS BEING SUBMITTED. TECHNICAL SPECIFICATION 3.4.8 LIMITS DOSE EQUIVALENT IODINE-131 (DOSEQ-I-131) TO LESS THAN 1.0 MICRO CURIES PER GRAM. ON TWO OCCASIONS THE REACTOR COOLANT EXCEEDED THIS LIMIT. ON BOTH OCCASIONS ALL OTHER ACTION ITEMS WERE COMPLIED WITH.

ON JANUARY 12, 1985 AT 0031 HOURS FOLLOWING A CONTROLLED SHUTDOWN OF THE UNIT ONE REACTOR THE DOSEQ-I-131 SPIKED TO A LEVEL OF 1.52 MICRO CURIES PER GRAM. THE IODINE LEVEL REMAINED IN EXCESS OF THE TECHNICAL SPECIFICATION LIMIT FOR FIFTEEN HOURS AND THIRTY-NINE MINUTES.

ON APRIL 6, 1985 AT 0400 HOURS, FOLLOWING A CONTROLLED SHUTDOWN OF THE UNIT ONE REACTOR, THE DOSEQ-I-131 SPIKED TO A LEVEL OF 4.48 MICRO CURIES PER GRAM. THE IODINE LEVEL REMAINED IN EXCESS OF THE TECHNICAL SPECIFICATION LIMIT FOR NINETEEN HOURS.

IN AN ATTEMPT TO PREVENT RECURRENCE, FUEL SIPPING WILL BE PERFORMED DURING THE 1985 REFUELING OUTAGE IN AN EFFORT TO LOCATE AND REPLACE THE LEAKING FUEL ASSEMBLIES.

THE HEALTH AND SAFETY OF THE PUBLIC WERE NOT AFFECTED.

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PDR ADCK 05000315
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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (3)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
DONALD C. COOK NUCLEAR PLANT UNIT 1	0 5 0 0 0 3 1 5	8 5	0 1 0	0 0	0 2 OF 0 3

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

TECHNICAL SPECIFICATION 3.4.8 REQUIRES A REPORTABLE OCCURRENCE REPORT TO BE SUBMITTED PURSUANT TO TECHNICAL SPECIFICATION 6.9.1 WHEN DOSE EQUIVALENT IODINE-131 (DOSEQ-I-131) EXCEEDS 1.0 MICRO CURIES PER GRAM IN THE REACTOR COOLANT. TECHNICAL SPECIFICATION 6.9.1.11 REFERS TO 6.9.12 AND 6.9.13 WHICH HAVE BEEN DELETED FROM THE TECHNICAL SPECIFICATIONS. THROUGH REEVALUATION THE PLANT FEELS A SPECIAL REPORT SHOULD BE SUBMITTED. ON TWO OCCASIONS THE DOSEQ-I-131 EXCEEDED 1.0 MICRO CURIES PER GRAM. ON BOTH OCCASIONS ALL OTHER ACTION ITEMS WERE COMPLIED WITH.

ON JANUARY 11, 1985 AT 2103 HOURS UNIT ONE REACTOR STARTED A CONTROLLED SHUTDOWN WITH THE REACTOR GOING SUBCRITICAL AT 2332 HOURS. LABORATORY ANALYSIS AT 0031 HOURS ON JANUARY 12, 1985 SHOWED A DOSEQ-I-131 OF 1.37 MICRO CURIES PER GRAM. THE DOSEQ-I-131 PEAKED AT 0230 ON JANUARY 12, 1985 WITH A VALUE OF 1.52 MICRO CURIES PER GRAM. THE REACTOR COOLANT DOSEQ-I-131 REMAINED IN EXCESS OF THE TECHNICAL SPECIFICATION LIMIT FOR FIFTEEN HOURS AND THIRTY-NINE MINUTES. CHEMICAL AND VOLUME CONTROL SYSTEM LETDOWN PURIFICATION FLOW WAS MAINTAINED AT A MAXIMUM FLOW RATE DURING THIS TRANSIENT.

FOLLOWING THE SHUTDOWN, THE UNIT WAS COOLED DOWN TO MODE 5 (COLD SHUTDOWN) AND DEGASSED. IODINE RELEASE TO THE REACTOR COOLANT WAS CONSISTENT WITH DATA REPORTED IN WESTINGHOUSE ELECTRIC CORPORATION WCAP-8637, "IODINE BEHAVIOR UNDER TRANSIENT CONDITIONS IN THE PRESSURIZED WATER REACTOR". DOSEQ-I-131 VALUES WERE IN THE ACCEPTABLE OPERATION PORTION OF TECHNICAL SPECIFICATION FIGURE 3.4-1 AT ALL TIMES DURING THE TRANSIENT.

ON APRIL 5, 1985 AT 2055 HOURS UNIT ONE REACTOR STARTED A CONTROLLED SHUTDOWN WITH THE REACTOR GOING SUBCRITICAL AT 0221 ON APRIL 6, 1985. LABORATORY ANALYSIS AT 0400 ON APRIL 6, 1985 INDICATED THE REACTOR COOLANT DOSEQ-I-131 CONCENTRATION HAD EXCEEDED THE TECHNICAL SPECIFICATION LIMIT. THE DOSEQ-I-131 PEAKED AT 4.48 MICRO CURIES PER GRAM AT THAT TIME. THE REACTOR COOLANT DOSEQ-I-131 REMAINED IN EXCESS OF THE TECHNICAL SPECIFICATION LIMIT FOR NINETEEN HOURS. CHEMICAL AND VOLUME CONTROL SYSTEM LETDOWN PURIFICATION FLOW WAS MAINTAINED AT MAXIMUM THROUGHOUT THE TRANSIENT.

FOLLOWING THE SHUTDOWN, THE UNIT REMAINED IN MODE 3 (HOT STANDBY) FOR SEVERAL DAYS DURING WHICH DEGAS OPERATIONS WERE INTERMITTENT. IODINE RELEASE TO THE REACTOR COOLANT WAS CONSISTENT WITH DATA REPORTED IN WESTINGHOUSE CORPORATION WCAP-8637, "IODINE BEHAVIOR UNDER TRANSIENT CONDITIONS IN THE PRESSURIZED WATER REACTOR". DOSEQ-I-131 VALUES WERE IN THE ACCEPTABLE OPERATION PORTION OF TECHNICAL SPECIFICATION TABLE 3.4-1 AT ALL TIMES DURING THE TRANSIENT.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/95

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)	PAGE (3)						
DONALD C. COOK NUCLEAR PLANT UNIT 1		<table border="1"><tr><th data-bbox="1032 244 1131 266">YEAR</th><th data-bbox="1131 244 1280 266">SEQUENTIAL NUMBER</th><th data-bbox="1280 244 1362 266">REVISION NUMBER</th></tr><tr><td data-bbox="1032 266 1131 334">0 5 0 0 0 3 1 5 8 5</td><td data-bbox="1131 266 1280 334">- 0 1 0</td><td data-bbox="1280 266 1362 334">- 0 0 0 3</td></tr></table>	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	0 5 0 0 0 3 1 5 8 5	- 0 1 0	- 0 0 0 3	OF 0 3
YEAR	SEQUENTIAL NUMBER	REVISION NUMBER							
0 5 0 0 0 3 1 5 8 5	- 0 1 0	- 0 0 0 3							

TEXT (If more space is required, use additional NRC Form 386A's) (17)

IN AN ATTEMPT TO PREVENT RECURRENCE, FUEL SIPPING WILL BE PERFORMED DURING THE 1985 REFUELING OUTAGE IN AN EFFORT TO LOCATE AND REPLACE THE LEAKING FUEL ASSEMBLES. A SUPPLEMENTAL REPORT WILL BE SUBMITTED AFTER FUEL SIPPING AND SUBSEQUENT UNIT STARTUP.

FUEL BURNUP BY CORE REGION AND ALL ADDITIONAL DATA AS REQUIRED BY TECHNICAL SPECIFICATION 3.4.8 IS FOUND IN THE ATTACHMENTS.

THE HEALTH AND SAFETY OF THE PUBLIC WERE NOT AFFECTED.

PREVIOUS OCCURRENCES: 315/76-052
315/76-059
315/78-026

BURNUP CALCULATION SUMMARY SHEET
D.C. COOK NUCLEAR PLANT (OFFICIAL RUN)

UNIT NO. 1

REPORT NO. 45

CYCLE NO. 8

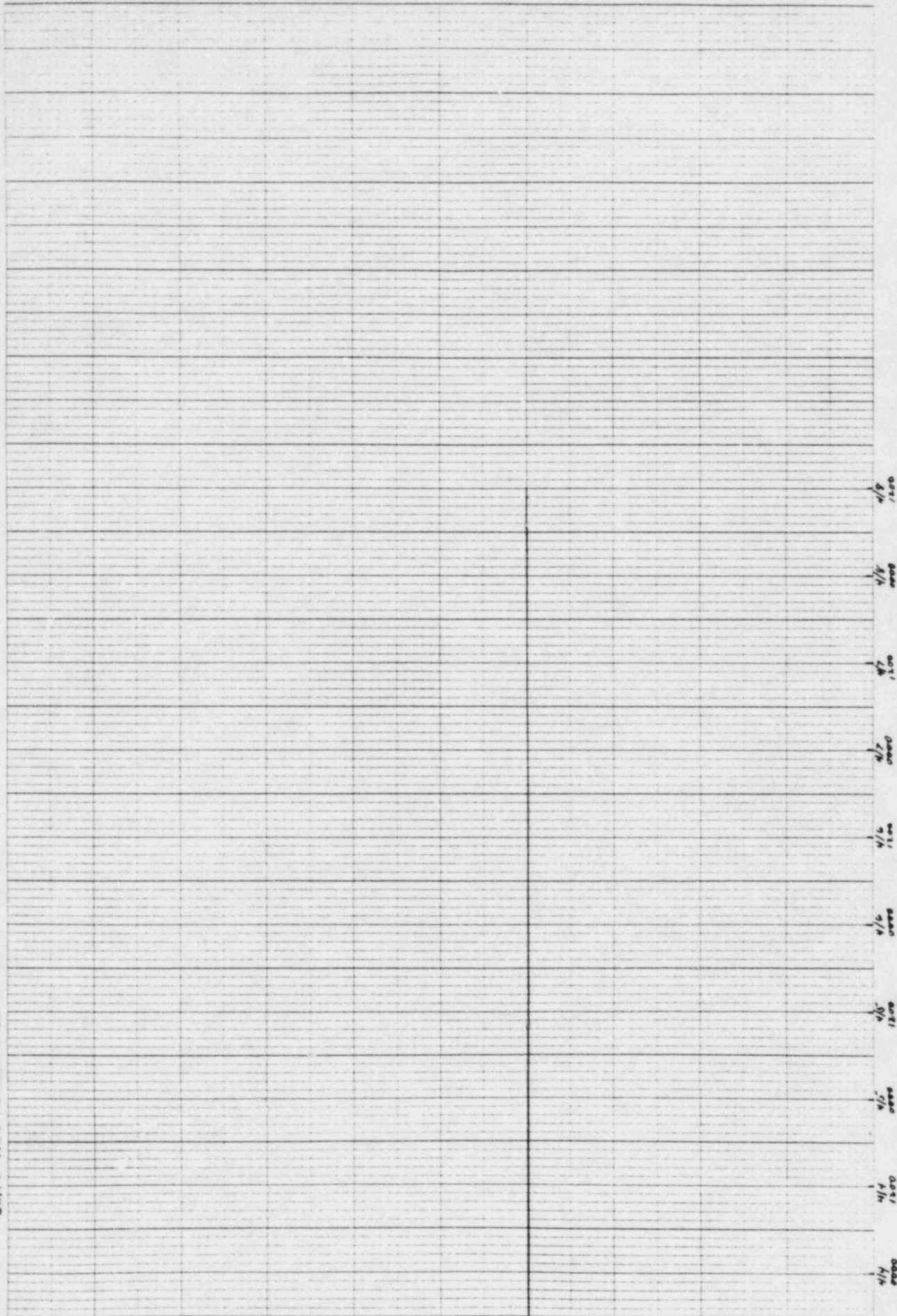
DATE APR 14, 1985

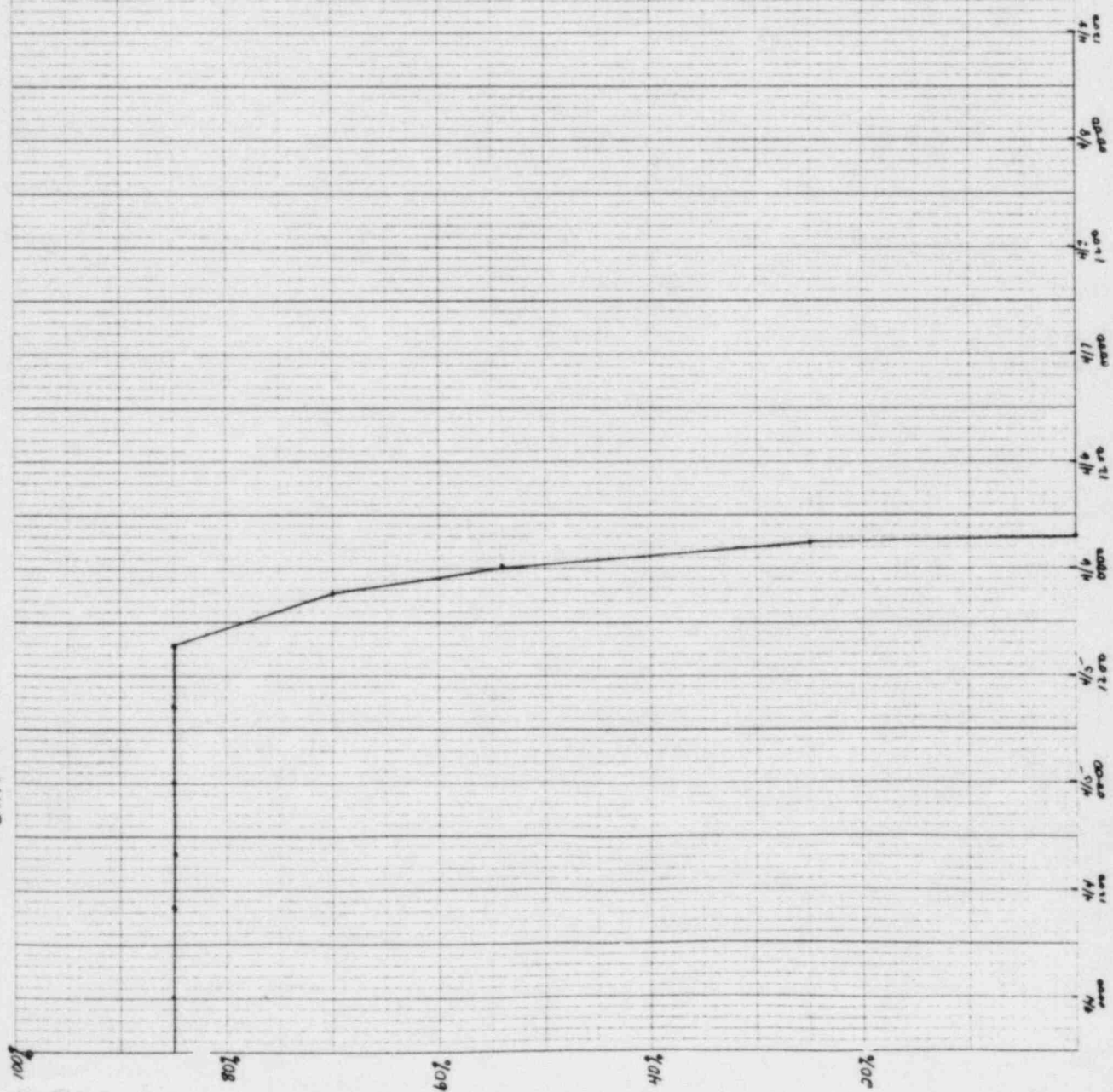
PERIOD JAN01-APR31, 1985

REGION NO	BURNUP FOR PERIOD (MWD/MTU)	CUMULATIVE BURNUP (MWD/MTU)	ENERGY FOR PERIOD (BTU)	CUMULATIVE ENERGY (BTU)
1 K 1-44	0.2998E+04	0.1861E+05	0.4968E+13	0.3084E+14
2 K 45-80	0.2399E+04	0.1507E+05	0.3262E+13	0.2049E+14
3 H	0.1998E+04	0.3281E+05	0.3425E+13	0.5624E+14
4 J	0.2534E+04	0.2561E+05	0.5672E+13	0.5731E+14
CORE TOTAL	0.2486E+04	0.2366E+05	0.1733E+14	0.1649E+15

APRIL 1985

Unit 1 RCS Letdown Flow in GPM



Unit 1 $R \times R$ Power

MADE IN U.S.A.
OILTEGGEN CORPORATION

ALL INFORMATION CONTAINED
HEREIN IS UNCLASSIFIED

UNIT NO. 1

REPORT NO. 44A

CYCLE NO. 8

DATE JAN. 21, 1985

PERIOD JAN01-JAN12,1985

REGION NO	BURNUP FOR PERIOD (MWD/MTU)	CUMULATIVE BURNUP (MWD/MTU)	ENERGY FOR PERIOD (BTU)	CUMULATIVE ENERGY (BTU)
1 K	0.3274E+03	0.1594E+05	0.5426E+12	0.2642E+14
2 K	0.2585E+03	0.1293E+05	0.3514E+12	0.1758E+14
3 H	0.2153E+03	0.3103E+05	0.3690E+12	0.5318E+14
4 J	0.2736E+03	0.2335E+05	0.6123E+12	0.5225E+14
CORE TOTAL	0.2691E+03	0.2144E+05	0.1875E+13	0.1494E+15

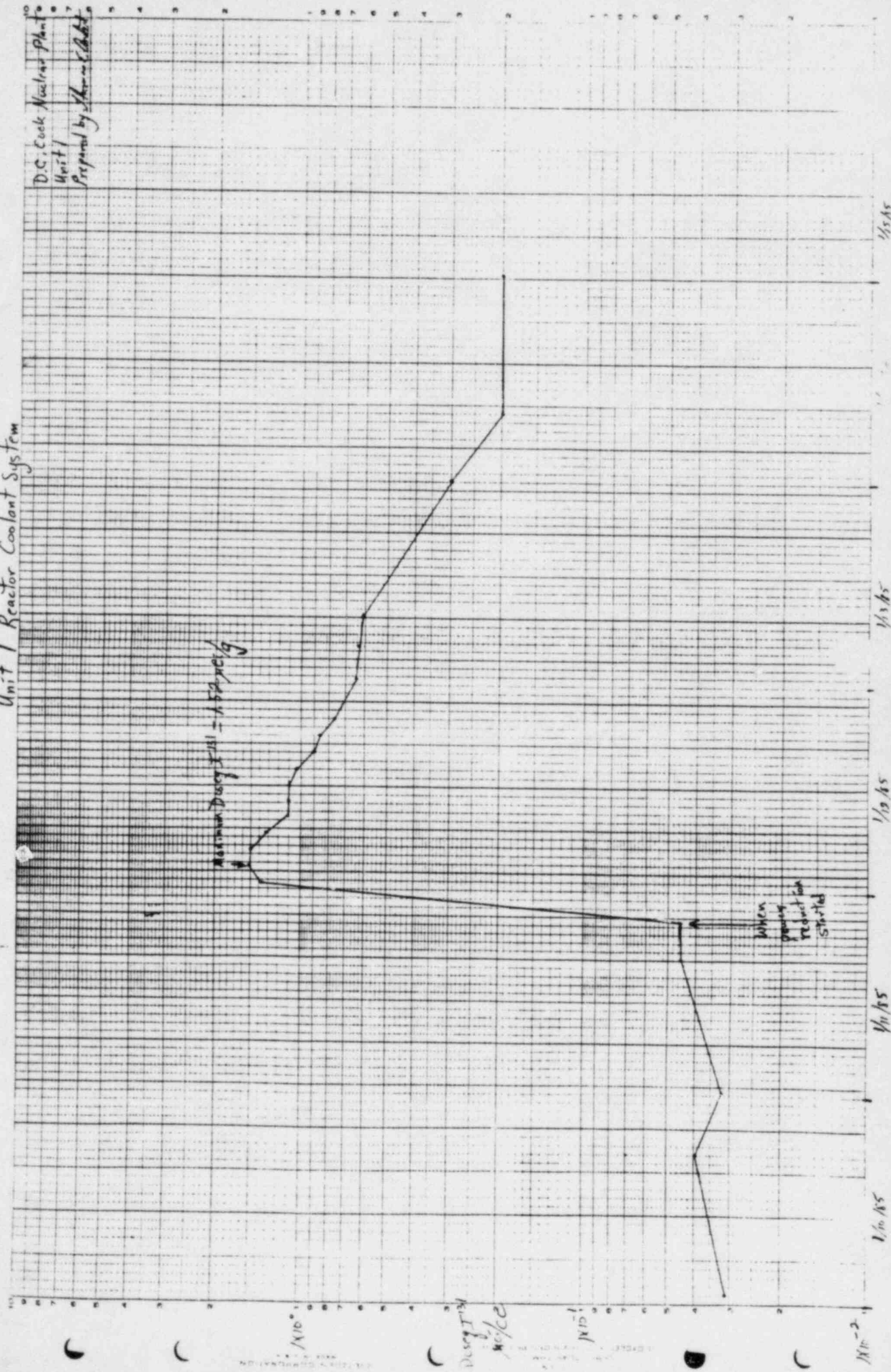
JAN 1982

Unit 1 Reactor Coolant System

D.C. Cook Nuclear Plant
Unit 1
Prepared by: Thomas A. Babb

Maximum Duty Full = 1500 gpm

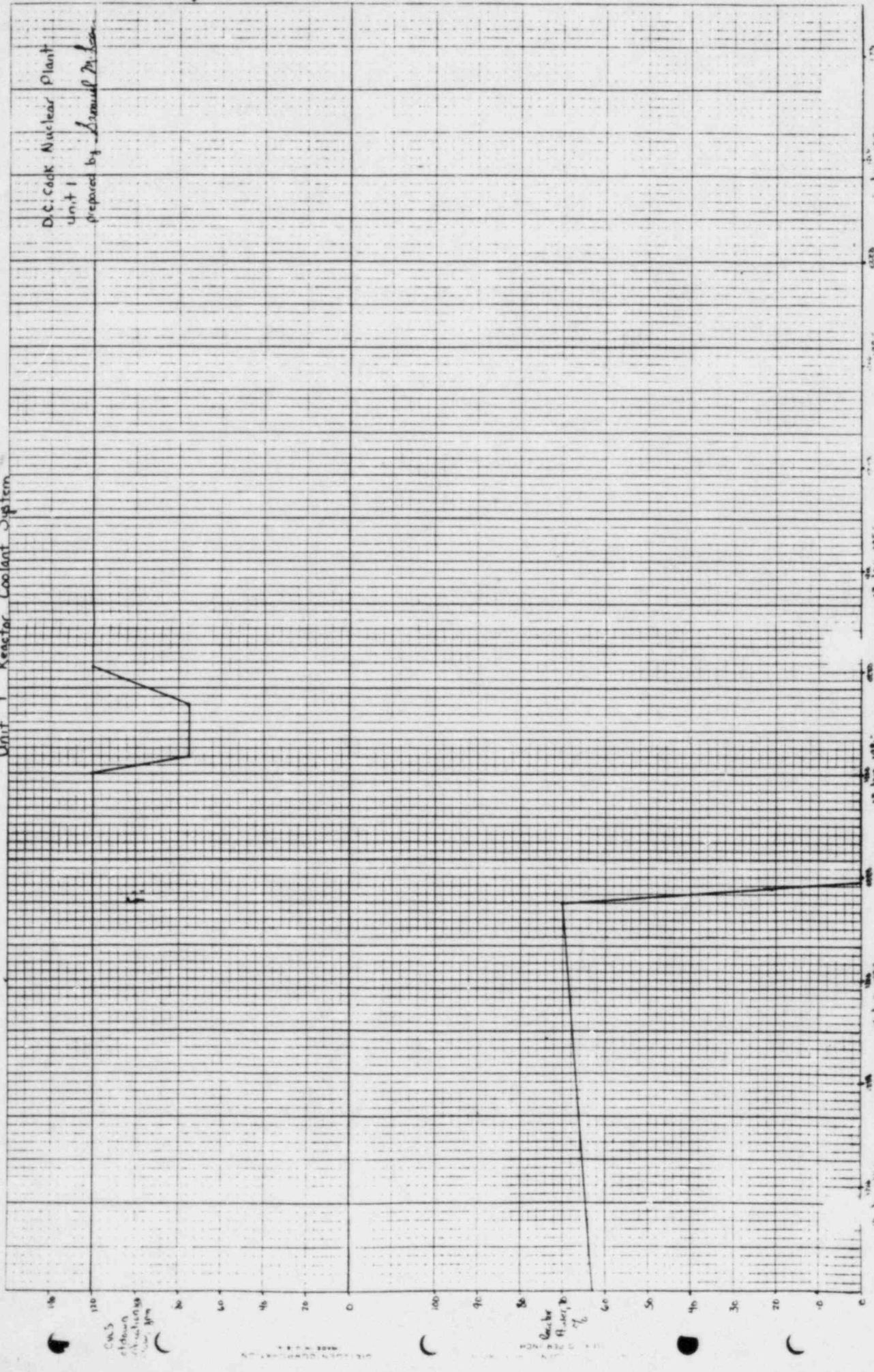
When
pump
started
reactor
started



1987 Jan

Unit 1 Reactor Coolant System

D.C. Cook Nuclear Plant
Unit 1
prepared by Samuel M. Lee



OWS
Station
Nuclear
Power Plant

Reactor
Coolant
System



INDIANA & MICHIGAN ELECTRIC COMPANY

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

May 3, 1985

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

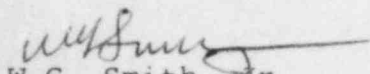
Operating License DPR-58
Docket No. 50-315

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 85-010-0

Sincerely,


W.G. Smith, Jr.
Plant Manager

/cbm

Attachment

cc: John E. Dolan
J.G. Keppler, RO:III
M.P. Alexich
R.F. Kroeger
H.B. Brugger
R.W. Jurgensen
NRC Resident Inspector
R.C. Callen, MPSC
G. Charnoff, Esq.
J.M. Hennigan
INPO
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