LICENSEE EVENT REPORT

CONTROL BLOCK: ☐☐☐☐☐☐ ① (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

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

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

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES ⑩

0 2 FOLLOWING A REACTOR TRIP AT 1918 HOURS ON SEPTEMBER 18,1982, THE REACTOR COOLANT

0 3 SYSTEM (RCS) DOSE EQUIVALENT (DOSEQ) IODINE-131 CONCENTRATION EXCEEDED THE

0 4 1.0 µCi/gram STEADY STATE LIMIT OF TECHNICAL SPECIFICATION 3.4.8. THE IODINE

0 5 LEVELS REMAINED IN EXCESS OF TECHNICAL SPECIFICATION LIMITS UNTIL 0500 HOURS

0 6 ON SEPTEMBER 19, 1982. THE PUBLIC HEALTH AND SAFETY WERE NOT AFFECTED. PREVIOUS

0 7 OCCURRENCES OF A SIMILAR NATURE INCLUDE: 50-315/76-059,78-026;50-316/81-049,

0 8 82-004,013,018,067,075.

0 9 | SYSTEM CODE: C G ⑪ | CAUSE CODE: X ⑫ | CAUSE SUBCODE: Z 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 2 | — | SEQUENTIAL REPORT NO.: 0 7 8 | / | OCCURRENCE CODE: 0 3 | REPORT TYPE: L | — | REVISION NO.: 0

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 ㉖

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS ㉗

1 0 ON SEPTEMBER 18, 1982, FOLLOWING A REACTOR TRIP, THE RCS DOSEQ-I-131 SPIKED TO A

1 1 MAXIMUM OF 1.76 µCi/gram. PRIOR TO THE REACTOR TRIP, THE RCS DOSEQ-I-131 WAS

1 2 AVERAGING 9.5 x 10^{-2} µCi/gram. (SEE ATTACHED SUPPLEMENT)

1 3

1 4

1 5 | FACILITY STATUS: G ㉘ | % POWER: 0 0 0 ㉙ | OTHER STATUS ㉚: NA | METHOD OF DISCOVERY: B ㉛ | DISCOVERY DESCRIPTION ㉜: ROUTINE CHEMICAL ANALYSIS

1 6 | ACTIVITY RELEASED: Z ㉝ | CONTENT OF RELEASE: Z ㉞ | AMOUNT OF ACTIVITY ㉟: NA | LOCATION OF RELEASE ㊱: NA

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

LOSS OF OR DAMAGE TO FACILITY ㊸

1 9 | TYPE: Z ㊷ | DESCRIPTION: NA

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PDR ADOCK 05000316
S PDR

PUBLICITY

2 0 | ISSUED: N ㊹ | DESCRIPTION ㊺: | NRC USE ONLY

NAME OF PREPARER Robert A. Palmer PHONE (616) 465-5901

GPO 917-926

ATTACHMENT TO LER# 82-078/03L-0

SUPPLEMENT TO CAUSE DESCRIPTION

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF APPENDIX A TECHNICAL SPECIFICATIONS 3.4.8 AND 6.9.1. ON SEPTEMBER 18, 1982, THE DOSE EQUIVALENT IODINE-131 ACTIVITY IN THE UNIT 2 REACTOR COOLANT SYSTEM WAS FOUND OUT OF SPECIFICATION.

AT 1918 HOURS ON SEPTEMBER 18,1982, THE UNIT EXPERIENCED A REACTOR TRIP. LABORATORY ANALYSIS AT 2120 HOURS ON SEPTEMBER 18, 1982, INDICATED THE REACTOR COOLANT DOSE EQUIVALENT IODINE-131 CONCENTRATION HAD EXCEEDED THE TECHNICAL SPECIFICATION LIMITS OF 1.0 µCi/gram. *THE DOSE EQUIVALENT IODINE-131 ACTIVITY SPIKED TO A MAXIMUM OF 1.76 µCi/gram AT THIS TIME. THE REACTOR COOLANT SYSTEM DOSE EQUIVALENT IODINE REMAINED ABOVE TECHNICAL SPECIFICATION LIMITS UNTIL 0500 HOURS ON SEPTEMBER 19. 1982.

AT 2313 HOURS ON SEPTEMBER 18, 1982, THE REACTOR WAS AGAIN TAKEN CRITICAL AND POWER ASCENSION STARTED. A SECOND REACTOR TRIP OCCURRED AT 0417 HOURS ON SEPTEMBER 20, 1982, AT APPROXIMATELY 18% POWER. THE UNIT WAS AGAIN TAKEN CRITICAL AT 0916 HOURS ON SEPTEMBER 20, 1982. A THIRD REACTOR TRIP OCCURRED AT 1054 HOURS ON SEPTEMBER 20, 1982, AT APPROXIMATELY 12% POWER. RCS DOSEQ-I-131 SPIKED AFTER EACH REACTOR TRIP, BUT DID NOT EXCEED THE 1.0 µCi/gram TECHNICAL SPECIFICATION LIMIT. CVCS LETDOWN PURIFICATION FLOW WAS MAINTAINED THROUGHOUT THE TRANSIENTS. ALL SUBSEQUENT DOSE EQUIVALENT IODINE ANALYSIS INDICATED DECREASING LEVELS OF IODINE. IODINE RELEASE AT THIS TIME PERIOD IS CONSISTENT WITH DATA REPORTED IN WESTINGHOUSE ELECTRIC CORPORATION WCAP-8637, "IODINE BEHAVIOR UNDER TRANSIENT CONDITIONS IN THE PRESSURIZED WATER REACTOR". DOSE EQUIVALENT IODINE-131 VALUES WERE IN THE "ACCEPTABLE OPERATION" PORTION OF TECHNICAL SPECIFICATION FIGURE 3.4-1 AT

ALL TIMES DURING THE TRANSIENT. ALL APPLICABLE TECHNICAL SPECIFICATION ACTION ITEMS WERE MET DURING THIS TIME.

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

*COOLANT SAMPLES ARE BROUGHT TO AMBIENT CONDITIONS PRIOR TO COUNTING; THEREFORE, UNITS OF μCi/gram AND μCi/cc ARE CONSIDERED INTERCHANGEABLE.

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BURNUP CALCULATION SUMMARY SHEET
D. C. COOK UNIT 2

UNIT NO. 2

CYCLE NO. 3

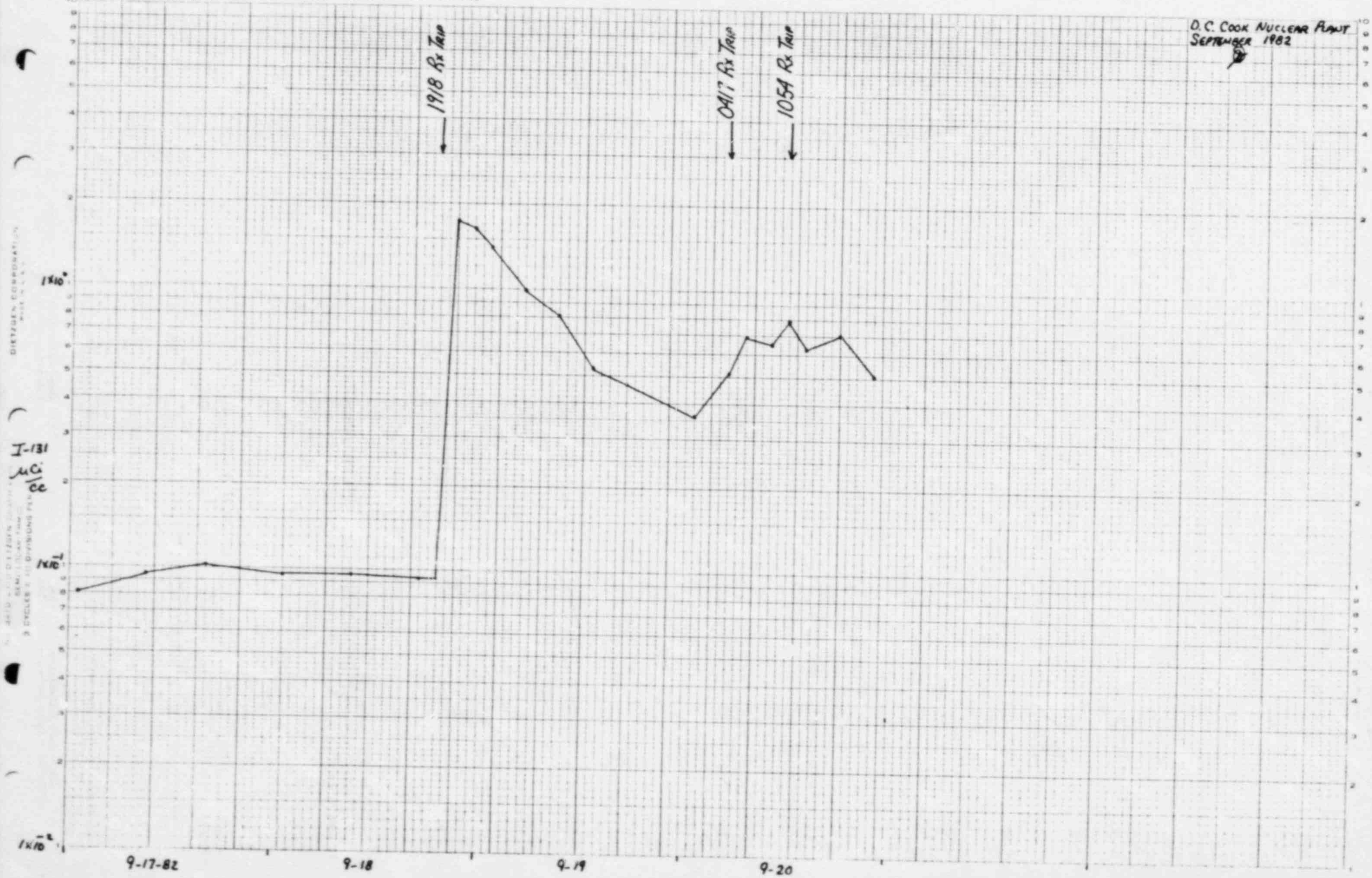
REPORT NO. 18C

DATE SEPTEMBER 22, 1982

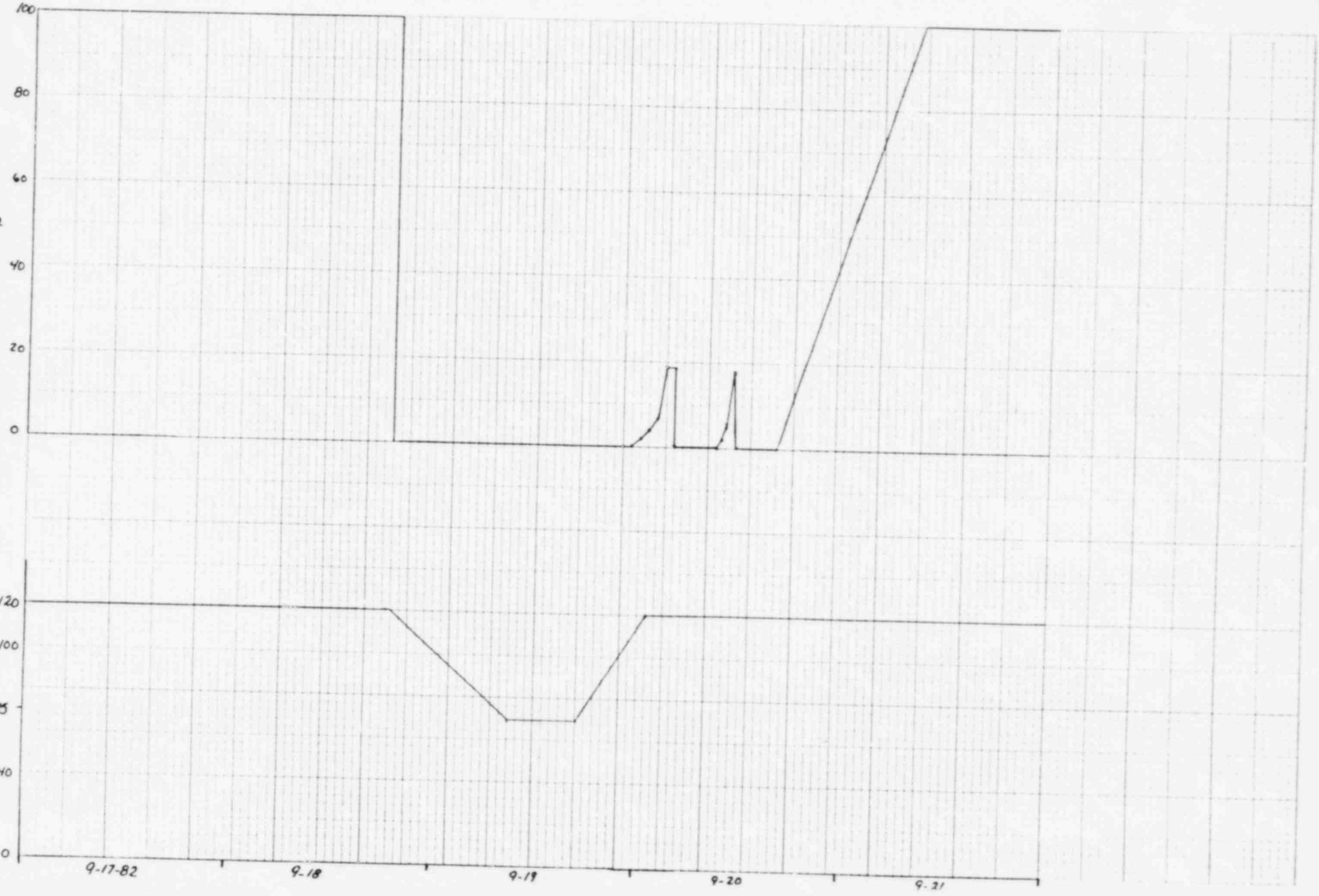
PERIOD 01JUL82-18SEP82

REGION NO	BURNUP FOR PERIOD (MWD/MTU)	CUMULATIVE BURNUP (MWD/MTU)	ENERGY FOR PERIOD (BTU)	CUMULATIVE ENERGY (BTU)
1	0.1372E+04	0.2541E+05	0.1050E+13	0.2012E+14
2	0.2446E+04	0.3013E+05	0.7490E+13	0.9071E+14
3	0.2427E+04	0.1562E+05	0.8378E+13	0.5392E+14
CORE TOTAL	0.2332E+04	0.2271E+05	0.1692E+14	0.1647E+15

Unit 2 Reactor Coolant Dose Eq I-131 vs Time



D.C. Cook Nuclear Plant
September 1982



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