NRC Form 366 9-833			LIC	ENSEE	EVEN	T RE	PORT	(LER)		CLEAR REGULATO PPROVED OMB NO XPIRES 8/31/85	
FACILITY NAME (1)								0	OCKET NUMBER		PAGE (3)
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AND BOTH REVIEW C BEING CA THE "SET FOR BATC RESULTED THE OFF RELEASES BODY DOS WAS BEIN POINT 3' PROCEDUF COMPLIAN THE PROC PROCEDUF INDEPEND	MBER 1: UNITS F THE S LCULATI POINT H GASE O IN TH SITE DO WAS 1 E RATE IG CALCO COMPU RE WAS ICE AND EDURAL RE REVI DENTLY	2, 1984 W AT 100 P SETPOINT ED, PER P 3" COMPUT OUS RELEA E RADIATI DSE CALCU .7 TIMES PER THE ULATED BA TER PROGF CHANGED S RMS SETF ERROR WA EW BY COF	ITH UNI ERCENT ADJUSTM ROCEDUR ER PROG SES FRO ON MONI JLATION HIGH FO ODCM. SED ON AM. AS O THAT POINT CA SO THAT POINT CA SPART PORATE ANT PRO	T 1 ANI REACTOI ENT FOI E, WHEI RAM IS M THE TORING MANUAL R SKIN THE ER A COR THE DO LCULAT OF A R PERSON CEDURE	D UN R TH RMUL N USE PROV SYS (OD DOS ROR FLUE RECT SE R IONS ECEN NEL. S TO	ERMAL A THA ING T D TO IDED TEM (CM). E RAT WAS C NT DO IVE A ATES ARE TLY D COR INSU	POWE T INC HE "S CALCU LABOR RMS) THE E AND AUSED SE CA CTION USED AS PE E VELO PORAT JRE TE	OR COOLAN R IT WAS ORRECT DO ETPOINT 3 LATE THE ATORY ANA BEING IN RMS ALARM 2.0 TIME WHEN THE LCULATION THE GASE TO CALCUL R THE ODC DED PROGR E PERSONN CHNICAL A	DISCOVERE SE RATE F " COMPUTE DOSES AND LYSIS. T NONCOMPLI SETPOINT S HIGH FC GASEOUS OPTION T OUS WASTE ATE THE F M. THE D AM OF IND EL ARE CO	ED DURING FACTORS WE ER PROGRAM D DOSE RAT THE ERROR IANCE WITH FOR BATC DR THE TOT WASTE REL TO THE "SE E RELEASES RELEASE LI DISCOVERY DEPENDENT	RE TES H CH EASE T- EMIT OF
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NRC Form 366A (9-83)	EVENT REPORT (LER) TEXT CON	TINUATION		LATORY COMMISSION 8 NO 3150-0104 85	
FACILITY PAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)		PAGE (3)	
D. C. COOK NUCLEAR PLANT	INIT 1		ENTIAL REVISION MBER NUMBER		

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ON SEPTEMBER 12, 1984 WITH UNIT 1 AND UNIT 2 REACTOR COOLANT SYSTEMS IN MODE 1 AND BOTH UNITS AT 100 PERCENT REACTOR THERMAL POWER IT WAS DISCOVERED DURING A REVIEW OF A SETPOINT ADJUSTMENT FORMULA THAT INCORRECT DOSE RATE FACTORS WERE BEING CALCULATED, WHEN USING THE "SETPOINT 3" COMPUTER PROGRAM. THE "SETPOINT 3" COMPUTER PROGRAM IS USED TO CALCULATE THE DOSES AND DOSE RATES FOR BATCH GASEOUS RELEASES. THE ERROR RESULTED IN THE RADIATION MONITORING SYSTEM (RMS) SETPOINTS BEING IN NONCOMPLIANCE WITH THE OFF SITE DOSE CALCULATION MANUAL (ODCM). THE RMS ALARM SETPOINTS WERE 1.7 TIMES HIGH FOR SKIN DOSE RATE AND 2.0 TIMES HIGH FOR THE TOTAL BODY DOSE RATE. A RANDOM SAMPLE OF 25 PERCENT OF THE 1983 GASEOUS WASTE RELEASES WERE RECALCULATED USING THE CORRECT DOSE RATE FACTORS AND NONE OF THE NEW DOSE RATES EXCEEDED THE TECHNCIAL SPECIFICATION LIMIT OF 500 mREM/YR TO THE TOTAL BODY 3000 MREM/YR TO THE SKIN OR 1500 MREM/YR TO ANY ORGAN. ALL RE-CALCULATED DOSE RATES WERE A SMALL FRACTION OF THE TECHNICAL SPECIFICATION LIMITS.

TEXT IN more space is required, use additional NRC Form 3664's/ 1171

THE ERROR WAS CAUSED WHEN THE GASEOUS WASTE RELEASES DOSE RATES WERE BEING CALCULATED BASED ON THE EFFLUENT DOSE CALCULATION OPTION TO THE "SETPOINT 3" COMPUTER PROGRAM. THE SETPOINT OPTION WAS NOT BEING USED AND THEREFORE, THE DOSE RATES DEVELOPED ON THE EFFLUENT DOSE CALCULATION WERE UTILIZED. THE ODCM REQUIRES DOSE RATES TO BE DEVELOPED FOR THE TOTAL BODY, SKIN AND ANY ORGAN, THE EFFLUENT DOSE CALCULATION DOES NOT PROVIDE THESE CALCULATIONS. THE EFFLUENT DOSE CALCULATION OPTION DEVELOPED DOSES FOR AIR GAMMA, AIR BETA AND PARTICULATES/ IODINES WITH HALF LIVES GREATER THAN EIGHT DAYS. THE DOSE RATES DEVELOPED IN THIS OPTION WERE DERIVED AS FOLLOWS:

TOTAL DO	ISE mREMS		v	8760 HRS.	- DEM (VD
DURATION	OF RELEASE	HRS.	X	YEAR	= mREM/YR

THE PROCEDURE INCORRECTLY IDENTIFIED THE ABOVE DOSE RATES AS WHOLE BODY AND SKIN IN THE CASES OF AIR GAMMA AND AIR BETA, WHICH GAVE THE IMPRESSION THE DOSE RATES WERE BEING CALCULATED AS PER THE ODCM.

AS CORRECTIVE ACTION THE GASEOUS WASTE RELEASES PROCEDURE WAS CHANGED SO THAT THE DOSE RATES USED TO CALCULATE THE RELEASE LIMIT COMPLIANCE AND RMS ALARM SETPOINTS CALCULATIONS ARE PER THE ODCM.

THE DISCOVERY OF THE ERROR WAS PART OF A RECENTLY DEVELOPED PROGRAM OF INDEPENDENT PROCEDURE REVIEW BY CORPORATE PERSONNEL. CORPORATE PERSONNEL ARE CONTINUING TO INDEPENDENTLY REVIEW PLANT PROCEDURES TO INSURE TECHNICAL ACCURACY.

THE HEALTH AND SAFETY OF THE PUBLIC WERE NOT AFFECTED.