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SUBJECT: "Numbers of Personnel & Man-Rem by Work & Job Function, 1996
 Harris Plant." W/970227 ltr.

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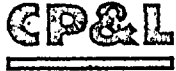
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Carolina Power & Light Company
PO Box 165
New Hill NC 27562

William R. Robinson
Vice President
Harris Nuclear Plant

FEB 27 1997

United States Nuclear Regulatory Commission
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Serial HNP-97-051

SHEARON HARRIS NUCLEAR POWER PLANT
DOCKET NO. 50-400/LICENSE NO. NPF-63
ANNUAL OPERATING REPORT - 1996

Gentlemen:

In accordance with Harris Nuclear Plant Technical Specification 6.9.1.2, Carolina Power & Light Company herewith submits the annual report of (a) individuals receiving exposures greater than 100 mrem/yr and their associated man-rem exposure according to work and job functions, (b) primary coolant iodine spikes, and (c) challenges to the pressurizer power-operated relief valves (PORVs) and safety valves for 1996.

Questions regarding this matter may be referred to Ms. D. B. Alexander at (919) 362-3190.

Sincerely,

MV

c: Mr. J. B. Brady (NRC Senior Resident Inspector - HNP)
Mr. L. A. Reyes (NRC Regional Administrator - NRR)
Mr. N. B. Le (NRC Project Manager - NRR)
Ms. M. L. Thomas (NRC Project Manager - REIRS)

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PDR ADOCK 05000400
R PDR



State Road 1134 New Hill NC Tel 919 362-2502 Fax 919 362-2095

bc: Ms. D. B. Alexander
Ms. P. B. Brannan
Mr. H. K. Chernoff (RNP)
Mr. G. W. Davis
Mr. J. W. Donahue
Ms. S. F. Flynn
Mr. H. W. Habermeyer, Jr.
Mr. W. J. Hindman
Ms. W. C. Langston (PE&RAS File)
Mr. R. D. Martin
Mr. W. S. Orser
Mr. G. A. Rolfson
Mr. R. S. Stancil
Mr. M. A. Turkal (BNP)
Mr. T. D. Walt
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RIMS II
NUMBER OF PERSONNEL AND MAN-REM BY WORK AND JOB FUNCTION, 1996
HARRIS PLANT

WORK AND JOB FUNCTION	NUMBER OF PERSONNEL > 100 MREM			TOTAL MAN-REM		
	STAT	UTIL	CNTR	STAT	UTIL	CNTR
REACTOR OPERATIONS AND SURVEILLANCE						
MAINTENANCE PERSONNEL	1	0	1	0.435	0.003	0.232
OPERATING PERSONNEL	3	0	0	2.201	0.000	0.128
HEALTH PHYSICS PERSONNEL	9	0	0	2.867	0.000	0.091
SUPERVISORY PERSONNEL	0	0	0	0.054	0.006	0.002
ENGINEERING PERSONNEL	0	0	0	0.439	0.034	0.102
ROUTINE MAINTENANCE						
MAINTENANCE PERSONNEL	1	0	0	2.015	0.002	0.937
OPERATING PERSONNEL	0	0	0	0.261	0.000	0.000
HEALTH PHYSICS PERSONNEL	0	0	0	0.296	0.000	0.001
SUPERVISORY PERSONNEL	0	0	0	0.007	0.000	0.001
ENGINEERING PERSONNEL	0	0	0	0.373	0.000	0.049
INSERVICE INSPECTION						
MAINTENANCE PERSONNEL	0	0	0	0.003	0.000	0.000
OPERATING PERSONNEL	0	0	0	0.000	0.000	0.000
HEALTH PHYSICS PERSONNEL	0	0	0	0.048	0.000	0.000
SUPERVISORY PERSONNEL	0	0	0	0.000	0.000	0.000
ENGINEERING PERSONNEL	0	0	0	0.011	0.000	0.000
SPECIAL MAINTENANCE						
MAINTENANCE PERSONNEL	6	0	10	2.064	0.003	3.421
OPERATING PERSONNEL	0	0	0	0.071	0.000	0.032
HEALTH PHYSICS PERSONNEL	4	0	0	1.164	0.000	0.003
SUPERVISORY PERSONNEL	0	0	0	0.005	0.000	0.000
ENGINEERING PERSONNEL	1	0	0	0.372	0.000	0.006
WASTE PROCESSING						
MAINTENANCE PERSONNEL	0	0	0	0.243	0.000	0.053
OPERATING PERSONNEL	0	0	0	0.153	0.000	0.000
HEALTH PHYSICS PERSONNEL	1	0	0	0.786	0.000	0.000
SUPERVISORY PERSONNEL	0	0	0	0.001	0.000	0.000
ENGINEERING PERSONNEL	0	0	0	0.022	0.000	0.052
REFUELING						
MAINTENANCE PERSONNEL	0	0	0	0.095	0.000	0.065
OPERATING PERSONNEL	0	0	0	0.208	0.000	0.000
HEALTH PHYSICS PERSONNEL	0	0	0	0.121	0.000	0.000
SUPERVISORY PERSONNEL	0	0	0	0.000	0.000	0.000
ENGINEERING PERSONNEL	0	0	0	0.087	0.000	0.000
TOTAL						
MAINTENANCE PERSONNEL	8	0	11	4.855	0.008	4.708
OPERATING PERSONNEL	3	0	0	2.894	0.000	0.160
HEALTH PHYSICS PERSONNEL	14	0	0	5.282	0.000	0.095
SUPERVISORY PERSONNEL	0	0	0	0.067	0.006	0.003
ENGINEERING PERSONNEL	1	0	0	1.304	0.034	0.209
GRAND TOTAL	26	0	11	14.402	0.048	5.175

Notes: (1) Dose based on electronic dosimeters

(2) STAT=Harris Plant staff
UTIL=CP&L non-Harris personnel
CNTR=Contractor

(3) Special Maintenance includes special work on spent fuel cask, spent fuel pools, moveable in-core detectors seal table room equipment, steam generators, reactor head, and certain valves and pumps.

1996 ANNUAL REPORT - PRIMARY COOLANT IODINE SPIKES

During 1996, activity levels in the primary coolant did not exceed 1.0 $\mu\text{Ci}/\text{gram}$ dose equivalent I-131 or 100/E-bar $\mu\text{Ci}/\text{gram}$ gross radioactivity as set forth in Technical Specification 3.4.8.

1996 ANNUAL REPORT - PRESSURIZER RELIEF AND SAFETY VALVE CHALLENGES

There were no challenges to the pressurizer safety valves in 1996. One (1) pressurizer power-operated relief valve was challenged in 1996. Details of this event are described below.

On March 29, 1996, following a heatup to normal plant temperature and pressure, the reactor operator in the main control room placed the Pressurizer Pressure Master Controller into AUTOMATIC prior to raising the controller setpoint to its correct value for normal plant operation. This resulted in an inadvertent opening of PORV 444B at 1255 hours. Operations personnel observed the open PORV and placed it back into MANUAL and closed the associated block valve to restore pressurizer pressure control and secure the pressure transient. After setting the master controller to the correct value, the PORV was unisolated by opening the block valve and the master controller was placed back into AUTOMATIC.

However, after taking these actions, pressurizer spray control was left in MANUAL instead of being placed into AUTOMATIC, with pressurizer heaters on. Due to the design of the master controller circuitry, which uses a time integrating function, the master controller began automatically increasing controller output and approximately 30 minutes later (1328 hours) PORV 444B opened again. Operations personnel once again closed the PORV block valve before any significant pressure transient occurred.

Reactor Coolant System pressure was maintained within its required band during each of these inadvertent PORV openings. Both instances were caused by personnel error related to improper operation of the Pressurizer Pressure Master Controller and procedural deficiencies within the controlling plant procedure.

Additional details of this event, including further description of the master controller function were included in NRC Inspection Report Number 50-400/96-04 dated May 20, 1996.