

the ALARA standard. The monitoring system is not able to promptly detect the specific radionuclides and their amounts being released inside and outside the plant.

JOINT CONTENTION VII (CANP 2 -- subpart (2) only)

Applicants have failed to demonstrate that the steam generators to be used in the Harris Plant are adequately designed and can be operated in a manner consistent with the public health and safety and ALARA exposure to maintenance personnel in light of (1) vibration problems which have developed in Westinghouse Model D-4 steam generators; (2) tube corrosion and cracking in other Westinghouse steam generators with Inconel-600 tubes and/or carbon steel support plates and AVT water chemistry; (3) present detection capability for loose metal or other foreign objects; and (4) existing tube failure analyses.

CCNC 4

The Applicant's request for authorization to store source, special nuclear and by-product material irradiated in nuclear reactors licensed under DPR-23, DPR-66, and DPR-71, should be denied as there has been no analysis in the ER of the environmental effects of transportation of radioactive wastes and other material from the other reactors to SHNPP. The Applicants' reliance on 10 C.F.R. 51.20(g), including the table

Eddleman 22A and B

The cost benefit analysis in the ER is deficient in the following respects:

(A) CP&L's Amendment 2 fuel cost estimates in Table 8.2.1-2 as amended are erroneously low, as are the fuel cost lifetime estimates in section 8.2 as amended and section 11 as amended (all in the ER).

(B) CP&L's estimates in the amended section 8 of the ER that the operating payroll at the Harris plant based on only 2 units will not be decreased by any significant amount, compared to the operation of all 4 units at the site, is not accurate.

Eddleman 29 and 30 (CANP 6)

Applicants have underestimated radioiodine releases during normal operations and have not demonstrated that normal radioiodine releases will not exceed Appendix I limitations.

Eddleman 37B (CANP 5)

The work of I.D.J. Bross (Ph.D.), Rosalie Bertell (Ph.D.) and others shows that radiation exposure increases the risk not only of cancer but a host of other diseases, allergies, and causes of death including heart disease, heart attack, and others. The estimates of the numbers of such victims made by the preceding workers et al are more accurate than the

estimates (if any) used by Applicants or NRC Staff or BEIR committee reports.

Eddleman 41 (CANP 4)

Applicants' QA/QC program fails to assure that safety-related equipment is properly inspected (e.g. the "OK" tagging of defective pipe hanger welds at SHNPP).

Eddleman 45

SHNPP design cannot comply with the results of the Plant Water Hammer Experience Report, PWR S.G. (steam generator), feedwater, ECCS & Main Steam System water hammer events evaluation (including systems effect) and potential resolutions now being prepared by NRC, and the CR and NUREG reports on the water hammer question.

Eddleman 64(f)

There is undue risk to the health and safety of the public since pressure valves on the casks used for spent fuel transport are likely to unseat (e.g. the 4 removed from service by GE in 1981) or the plastic components of such valves could and would melt in a fire less severe than the test basis for spent fuel casks. Open the valve and out comes the coolant -- radioactive contamination -- followed by fuel overheating & melting, Cs-137 boiling.

EDDLEMAN 80

The mixing models and dispersion models for radioactive gas, liquid and other radiological releases from SHN&P under 10 CFR part 20 are deficient in that they assume more complete mixing and dispersion of such radionuclides released than will actually take place, take insufficient account of rainout of such a release plume in a small area (rain precipitating the radionuclides in the plume) and thus do not assure that releases comply with 10 CFR 20.106 and the protection of the public health & safety, including holding individual doses below 25 rem whole body & thyroid doses below 300 rem in an accident, and below  $10^{-3}$  of these values in normal operation.

EDDLEMAN 83, 84

A. CP&L's ER (and the DEIS and FES of NRC) take no account of the formation of carcinogenic chemicals resulting from CP&L's discharges into the Harris cooling lake, which include chlorine, ammonia, hydrazine, etc. (See ER 5.3). These discharges can and will interact to form carcinogenic compounds including  $\text{NCl}_3$ ,  $\text{NHCl}_2$  and  $\text{NH}_2\text{Cl}$  among others. These compounds will pose a risk to anyone swimming in the lake, and anyone eating fish from the lake (due to concentration of carcinogens in the lake food chain). Any discharges of water from the lake into the Cape Fear River will put these

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of )  
)  
CAROLINA POWER & LIGHT COMPANY ) Docket Nos. 50-400 OL  
AND NORTH CAROLINA EASTERN ) 50-401 OL  
MUNICIPAL POWER AGENCY )  
)  
(Shearon Harris Nuclear Power )  
Plant, Units 1 and 2) )

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