

UNITED STATES OF AMERICA
ATOMIC ENERGY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

IN THE MATTER OF)	
)	
CAROLINA POWER & LIGHT COMPANY)	Docket Nos. 50-400
)	50-401
(Shearon Harris Nuclear Power)	50-402
Plant, Units 1, 2, 3 and 4))	50-403
)	

OUTLINE OF
SUPPLEMENTAL TESTIMONY
OF
CARLOS G. BELL

The proper design for location and operation of monitoring stations must follow a detailed set of meteorological calculations assuming the most difficult reasonable conditions. Likely these would be based on cases where there was a temperature inversion and a gentle wind. My preliminary estimate would be a ring of continuously-monitoring stations spaced at intervals of one mile forming, approximately, a ring with a radius of approximately five miles. In addition, there should be a second ring of similar stations spaced approximately two miles apart on a circle with a radius of approximately 20 miles. These monitoring stations should be continuous and there should be a continuously active telemetry system connecting each station to a central control authority.

In addition there should be five continuously-monitoring stations in the watercourse into which the heat from the reactor is dumped. As with the other stations, these stations should have telemetry systems so as to automatically alert a



central control authority.

Finally, there should be a detailed plan made for area area monitoring during the shipment of spent fuel. The area monitoring procedures for such shipment would have to follow examination of the monitoring procedures used on the transportation devices. As a minimum, however, there should be mobile monitoring station preceeding and following the transport vehicle.

Any monitoring station that is placed with care, and which both functions properly and conveys information to proper decision-making authorities, cannot do other than add to the safety of the nuclear reactor system. The PSAR gives little indication of any continuously-monitoring facilities other than those in the plant itself. It appears that the only continuously-monitoring station that has alarms is at North Carolina State University.

Reference document: USAEC, Meteorology and Atomic Energy