

Mr. Harold Denton  
Director, Office of Nuclear  
Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555  
(301) 492-7000

Subject: Shearon Harris nuclear plant,  
Carolina Power & Light,  
Emergency Plan

Dear Mr. Denton,

Carolina Power & Light Company has not conducted a full participation test of the present emergency plan for the Shearon Harris nuclear plant as required by federal regulation, 10 CFR Part 50.

This is most significant since Chatham County, by formal action of the Board of Commissioners, has withdrawn from the emergency plan. Thus, no plan which could actually be implemented if the plant were to operate has been tested.

In addition, citizens and officials in other counties are considering withdrawing from the present emergency plan. Clearly, any such action would further complicate this matter.

At least until such time as state and local governmental participation in an emergency plan for Shearon Harris is fully resolved, no exemption(s) from the requirement of a full participation test within one year prior to the granting of any full power license should be considered or approved.

Sincerely,



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## CONVERSION AND DECOMMISSIONING COSTS RELATED TO SHEARON HARRIS

Just as the hidden costs of nuclear power plant construction have come to light, the nuclear industry is beginning to discover the hidden costs of decommissioning, the shut down and monitoring costs, of nuclear plants. Following a nuclear plants closure there are three courses that can follow. All include removal of spent fuel, draining all liquids and flushing out the pipes. Dismantlement- decontaminate and dismantle the facility immediately after shut down, shipping all radioactive debris to a waste facility. Mothballing-putting facility in storage and placing under surveillance for approximately 50 years to undergo radioactive decay prior to dismantlement. Entombment-covering the reactor with reinforced concrete and erecting barriers to keep out intruders. Although once viewed as the cheap and easy way out, entombment is no longer considered a realistic option by environmental organizations because several radioisotopes remain lethal for 80,000 years or more. The protective structure would decay long before the radioactivity within.(1) General estimates for decommissioning suggest costs of up to 50% of construction costs or more.(1,3) The costs of decommissioning and radioactive waste disposal are paid for by consumers in their rates.(3)

Carolina Power & Light (CP&L) made decommissioning cost estimates for their Brunswick and Robinson nuclear plants in December 1981. The Robinson (1 reactor) plant will cost consumers \$924 million and the Brunswick(2 reactor plant will cost consumers \$2.8 billion to decommission by entombment, the least cost method of decommissioning.(2,3) The decommissioning cost of the Shearon Harris nuclear plant(SH) will be set at a rate hearing within a year after activation and it's probable that the estimate will be higher than the cost per reactor estimate for Robinson and Brunswick. This cost would then be set into the rate base, possibly raising CP&L rates even higher.(SH will cause a 25% rate increase upon opening, according to CP&L) (2,3)

In comparison, estimates to convert to a safer, non-nuclear fuel or even to build another non-nuclear generating plant seem minimal. For example, the Midland nuclear plant (85% complete) has estimated conversion cost to a gas fired plant at \$434 million. (The Bechtel Power Corp., a major nuclear industry company, studied the issue and has assured technical feasibility) (5) Building a new 900 mega-watt coal burning plant with scrubbers for environmental protection has been estimated at \$1.35 billion.(2) This estimate is high because it includes the cost of turbines and generators which are already available as part of SH.

It is also estimated that radioactive waste disposal for SH will cost at least \$4.5 million a year.(4) This cost could go up as mounting political resistance to radioactive waste disposal may increase the expenses involved. These hidden costs of decommissioning and waste disposal lend strength to the argument of converting SH to a safer, non-nuclear fuel. Although the cost of nuclear fuel is less than gas or coal, the operating expenses of nuclear plant are higher because of changing regulations requiring new alterations for safety higher insurance payments, legal litigation costs, and higher pay for workers. (Not to mention the serious hidden costs of human suffering, financial and economic loss, or damage to the environment in the event of accidents involving operation of the plant, transportation, or storage of the additional 1,000 tons of high level radioactive waste produced) Conversion to a non-nuclear fuel offers a new option for CP&L stockholders, wouldn't create any nuclear waste, and would prevent the threat of a nuclear accident that SH would present as a nuclear plant. The operating life of a non-nuclear plant can be substantially lengthened, compared to the approximate 30 year life of a nuclear plant, by "refurbishing" or replacing parts as they wear out. This would postpone stockholders and ratepayers having to invest in building another plant to replace SH. (2,3)



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