



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

NRC PDR

JUN 18 1979

Docket No. P-129

The Honorable Andy Ireland  
House of Representatives  
Washington, D. C. 20515

Dear Congressman Ireland:

This is in regard to your letter of April 24, 1979 requesting our response to the questions raised by Mr. Bettie. It appears from Mr. Bettie's letter that he has four concerns stemming from the Three Mile Island event. Responses to these concerns are as follows:

With respect to disposal of contaminated structures it should be recognized that not all of the plant's components and systems will require disposal as radioactive waste. It is expected that only those components and systems that will be radioactive after decontamination will be selected for disposal. The fuel elements would be transferred to a storage facility and the contaminated systems and components would be decontaminated where practicable. Decontamination of systems and components is not new, since it has been employed in the U. S. nuclear submarine program. Similar state of the art techniques would be applied to commercial nuclear power plants. The disassembled contaminated plant components and systems would be shipped to existing licensed burial grounds such as B. well, South Carolina.

With respect to the nuclear power plant at Shippingport, Pennsylvania, this facility is owned by the Department of Energy (DOE), and is operated for DOE by the Duquesne Light Company. In accordance with the Atomic Energy Act and the Energy Reorganization Act this facility has been and continues to be exempt from licensing by the NRC. Presently, Shippingport is operating with a light water breeder reactor core as part of a DOE research program. We do not know what future plans there are to operate the facility beyond completion of this program, nor do we have information relating to the question of eventual plant decommissioning.

With respect to the question concerning costs and risks the following economic cost estimates for Pennsylvania were taken from the enclosed publication, "Cost of Generating Baseload Electricity by Region":

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	<u>Nuclear</u>	<u>Coal</u>
Fixed Cost	39.65	31.26
Operation and Maintenance	3.03	6.23
Fuel	14.76	27.59
Total	57.44	65.08


These generating cost estimates are for the first year of operation at 2400 MWe station in mills per kilowatt-hour (1990 dollars). The cost of decommissioning is included in the fixed cost and the cost of nuclear waste disposal is included in the nuclear fuel cost. Other assumptions and sensitivity analyses can be found in the publication. Section 9.1.3.1 of the enclosed Final Environmental Statement for the proposed Greene County Nuclear Power Plant contains a comparison of estimated mortality and morbidity (i.e., number of cases of diseased and injured) resulting from the operation of 1000 MWe coal and nuclear generating stations for one year at an 80% capacity factor.

	<u>Nuclear</u>	<u>Coal</u>
Excess Mortality	1.2-6.8	15-120
Excess Morbidity	17-24	57-210

With respect to the worst case accident for conventionally fueled power plants, to the best of our knowledge worst case accident scenarios have not been evaluated.

I trust that the above is responsive to your request.

Sincerely,

*(Signed)* T. A. Rehm  
  
 Lee V. Gossick  
 Executive Director  
 for Operations

Enclosures:

1. NUREG-0480 Comparison of the Cost of Generating Baseload Electricity by Region
2. NUREG-0512 FES Greene County Nuclear Power Plant