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April 25, 1980

The Honorable Allen E. Ertel 1030 Longworth House Office Building Washington, D. C. 20515

Subject: Three Mile Island Krypton-85 Venting

Reference: Congressman Ertel letter to Chairman Ahearne dated April 21, 1980

Dear Congressman Ertel:

Thank you for sending us a copy of your April 21 letter to Chairman Ahearne. Thank you also for your interest in the TMI cleanup program.

We note that your letter does not identify any criteria or judgment concerning the appropriate standard for clean-up activity impact on the public. Under the company's venting proposal the public will receive between 1/100 (at the site boundary) and 1/20,000 (average within 50 miles) of the expected exposure from natural environmental sources during the 30 day venting period.

Venting the Krypton-85, under predetermined meteorological conditions, results in a dose to the surrounding population within 50 miles that is calculated to be about 1 person-rem; i.e., the summation of the dose to all individuals or the average dose times the number of individuals affected. The concept of person-rem is not one of general public knowledge but is a eaningful parameter for indicating health impact under the assumption of linear dose effect. It is possible to place the health impact of venting in perspective by comparing the resulting exposure to that imposed by the natural environment. That exposure is, for central Pennsylvania, about 0.120 rem/year. In this comparison, we have used the whole body gamma exposure which is, for this case, the exposure of controlling significance.

Independent of venting or TMI the 2 million people in the 50 mile radius around TMI will receive on the average 0.01 rem each from natural environmental sources for an integrated person-rem dose of 20,000; i.e., (.01) x (2,000,000) during the 30 day venting period. Thus the venting dose to the public is, on average, 1/20,000 of the environmental exposure.

For an individual at the site boundary, as contrasted with the average within 50 miles, the calculated venting exposure is 0.0001 rem and results, for that individual, in a person-rem dose of 0.0001 (.0001 x 1) compared with his expected environmental dose of .01 (.01 x 1), during the same time period. Thus, the venting dose at the site boundary is 1/100 of the environmental exposure. In other terms the total site boundary dose to an individual from venting is equal to the natural background exposure one receives in each 8 hour period or about 1/200 of that received from one chest x-ray.

Since we are unaware of any demonstrable health effects from the average environmental exposure in the central Pennsylvania area and since the venting will contribute an almost undetectable addition to that exposure, we have concluded that the public interest is best served by not delaying the clean-up process and not incurring even the slightest possibility of an uncontrolled release in the interest of further reductions to an already undemonstrable effect. Every step forward we take to remove the radioactive material lowers the threat to public health and safety. Any step available to be taken which is ignored or unnecessarily delayed only prolongs the exposure of the public to potential hazard. The problem we all struggle with is the impossibility of describing exactly the magnitude and extent of the hazards. But the judgments of all concerned are near-unanimous that the public's best interests are served by rapid clean-up of the island.

We recognize that there is a clear difference between the scientific and the public perception of the impact of the proposed venting. I am sure that we can all agree that the clean-up must be safely and expeditiously completed. I sense a great need for responsible public officials to support the efforts of those conducting and regulating the clean-up effort. The public sorely needs reassurance from their chosen leaders that their interests and their health are being properly protected by the use of technically sound and safe methods. We stand ready to cooperate with you and other responsible individuals or organizations to provide the basis for such support.

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cc: Hon. John F. Ahearne, Chairman, NRC
Hon. Victor Gilinsky, Commissioner,

Hon. Victor Gilinsky, Commissioner, NRC Hon. Peter Bradford, Commissioner, NRC

Hon. Joseph M. Hendrie, Commissioner, NRC Hon. Richard T. Kennedy, Commissioner, N.

Hon. Charles Duncan, Secretary, DOE

Mr. George W. Cunningham, Asst. Sec. for Nuclear Energy, DOE

Mr. Jack H. Watson, Jr., Asst. to the President for

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Hon. Richard Thornburgh, Governor, Commonwealth of Pennsylvania Mr. Robert C. Arnold, Exec. Vice President, Metropolitan Edison

Mr. Walter Vannoy, President, Babcock and Wilcox

Mr. R. J. Hart, Union Carbide

bcc: Mr. John T. Collins
Mr. William J. Dircks
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Cong. Robert S. Walker
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