

J. Cook

JUN 5 1979

The Honorable Howard M. Metzenbaum
United States Senate
Washington, D.C. 20510

Dear Senator Metzenbaum:

We are pleased to reply to the concerns of your constituent, Dr. Thomas Franz, noted in his letter to you of April 1, 1979. He was flying over the Three Mile Island power plant in a commercial aircraft on the day of the recent accident and is fearful that proper steps are not being taken to protect the health and safety of airline passengers who fly over that site. We must apologize for the lateness of this reply; our initial efforts, of course, were with the handling of all immediate problems related to the safe shutdown of the plant.

There are two main areas of concern regarding potential radiation exposure to people in aircraft which may have flown close to Three Mile Island (TMI) during the accident. These are: 1) the reactor building acts as a source of radiation emitted in all directions much as a light bulb emits light; and 2) there may be a release of radioactivity to the atmosphere, where it can be dispersed both vertically and horizontally. An aircraft could fly through a cloud of such radioactivity and possibly become contaminated.

As regards the first item, a calculation based on the maximum reading taken above the reactor building during the course of the accident would result in a radiation exposure, to an airplane in flight (100 miles per hour) at 10,000 ft. altitude, of about 0.2 millirem. This is a small fraction of the background radiation to which everyone is exposed naturally varies from place to place, and is approximately 100 millirems per year.

Regarding the second item, the dispersal of radioactivity and possible subsequent aircraft contamination, meteorological conditions the day of the accident were such that maximum vertical dispersion of the release that actually took place was about 1500 ft. Thus, an aircraft flying at 10,000 ft. would be well above any detectable concentration (cloud) of radioactive material.

Regarding Federal Aviation Administration and/or Trans World Airlines control of airplanes or passengers, it should be noted that in the response to TMI we had significant contact with the FAA even though they were not formally notified. An FAA representative was at the Operations Center on at least one occasion and was briefed by the NRC staff several times. As a result of contacts made by the Department of Energy aerial surveillance contractor on March 28, the FAA restricted a

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large area around Three Mile Island in order to allow the helicopters to fly monitoring missions at any time without interference.

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In addition, on at least one occasion, the Harrisburg International Airport was closed to facilitate air transport operations related to Three Mile Island.

I hope that the above information is responsive to your needs.

Sincerely,

(Signed) T. A. Rehm

for Lee V. Gossick
Executive Director for Operations

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This answer was coordinated with Solign Buchanan, esq. a member of the Interagency Task Force on Population, Waste and Health Impact at the Aircraft at TMI. He believed me for entomology re James Fairhead, entomologist with NRP. FAA informal violation from letter to Commissioner Ahearne from Solign Davis, IF, dated May 25, 1979. MUR 5/31/79

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