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FEB 26 1980

A. Edward Profio, Ph.D.  
Dept. of Chemical and Nuclear  
Engineering  
University of California,  
Santa Barbara  
Santa Barbara, CA 93106

Dear Dr. Profio:

I am writing in response to your letter regarding the documentation of radiation doses and institution of follow-up studies in the population around Three Mile Island. I regret that this answer to your letter has been delayed. The accident and its consequences have created a substantial increase in the agency's workload, which has prevented me from responding to you as promptly as I would have liked to.

The average dose of radioactivity received by the population within 50 miles of Three Mile Island was approximately 4 millirems. The maximum exposure to any individual was less than 100 millirems, which is less than the yearly dose each person receives as a result of natural background radiation. Doses at these levels result in less than one health effect over the lifetime of all people in this area. Natural background radiation received by people in the Harrisburg, Pennsylvania, area is approximately 125 millirems per year. To put these doses into perspective, it should be noted that a traveler flying round trip in a jet between New York City and Los Angeles receives 5 millirems from cosmic rays in the natural background.

Although it is generally agreed that epidemiologic studies of the resident population of Harrisburg, Pennsylvania, could not detect any excess morbidity or mortality due to radiation exposure from the accident at the Three Mile Island facility, the Center for Disease Control and the Pennsylvania Department of Health (with assistance from the NRC) have conducted a census of the population residing within five miles of Three Mile Island for the purpose of providing an adequate registry for potential future studies of health effects. The Department of Health of the Commonwealth of Pennsylvania also is planning to update the population registry every five years over the next three decades. In addition, the Health Department and several Pennsylvania universities are

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planning or already are conducting studies of health effects including pregnancy outcome, congenital and postnatal thyroid diseases, mental health and cytogenetic abnormalities.

Although it is unlikely that these studies will be able to unravel the complex etiology of these health effects, the NRC is monitoring the studies and assisting where possible through its Radiological Health Standards Branch.

Please contact the funding agencies for more information on the studies.

I am enclosing a summary of a report that may be of interest to you.

Sincerely,



Harold R. Denton, Director  
Office of Nuclear Reactor Regulation

Encl: Summary of NUREG-0558

OFFICE ▶ ANL/TMI	TMI task force	TMI task force	D/TMI
SURNAME ▶ P. Chee	W. Olin	S. Miner	R. Vollmer
DATE ▶ 1-31-80	1/31/80	1/31/80	2/4/80

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