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DEPARTMENT OF CHEMICAL AND
NUCLEAR ENGINEERING

SANTA BARBARA, CALIFORNIA 93106

April 2, 1979

Nuclear Regulatory Commission
Washington, DC 20555

Dear Sirs:

It would be a service to the residents near the Three-Mile Island nuclear plant, as well as to science, to establish the doses received and the subsequent medical history.

I am sure that NRC and other agencies are measuring the dose rates and contamination around the plant after the accident. However, I would urge that the external dose actually received by people be reconstructed from the dates and times they were at certain locations, and whether or not they were indoors or outdoors; while their memories are still fresh. Also, internal doses should be measured by whole-body and thyroid scans before I-131 and other short-lived isotopes have decayed.

The people who might have been exposed or were exposed should be interviewed as to age, sex, family history of cancer, smoking, occupation, etc. and then followed over the next 20 years - say to determine if there was indeed an excess number of cancers developed compared to a control population. Pregnant women should be followed to determine if there was any increase in frequency of birth defects. Although the exposures are apparently quite low, they are above routine levels, and this population if carefully studied may advance the knowledge of the biological effects of radiation such as the radium dial painters and atomic bomb survivors did.

Sincerely,

A. Edward Profio, Ph.D.
Professor of Nuclear Engineering