

NRC PDR



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

January 11, 1980  
NRC/TMI-80-001

MEMORANDUM FOR: R. H. Vollmer, Director, TMI Support

FROM: J. T. Collins, Deputy Director, TMI Support

SUBJECT: REPORTED DISCOVERY OF FISSION PRODUCTS IN MUD SAMPLES FROM RIVER NEAR TMI

REFERENCES:

- (1) Telegram, AMEMBASSY TOKYO to SECSTATE WASHDC, same subject, dated 26 Dec 79.
- (2) Metropolitan Edison Company, Radiological Environmental Monitoring Report, 1977 Annual Report.
- (3) Metropolitan Edison Company, Radiological Environmental Monitoring Report, 1978 Annual Report.

Reference 1 reported that Dr. Nobuya Ogino had disclosed the discovery of Cesium-134 in mud samples taken on October 27, 1979, from areas adjacent to the Three Mile Island site. Cesium-134 concentrations of 105 and 95 picocuries per kilogram of mud were reportedly determined by two Japanese schools.

Cesium-134 is a fission product with a half-life of 2.06 years. The isotope is introduced into the environment from a variety of sources, including weapons testing fallout and routine power reactor liquid discharges. Sediment concentrations of Cesium-134 in the hundreds of picocuries per kilogram are considered insignificant health hazards.

References 2 and 3 report the results of the Three Mile Island environmental sampling program for the years 1977 and 1978. A review of these reports, which are available in the public document room, indicates Cesium-134 concentrations in sediment samples were found prior to the accident last year at levels comparable to those reportedly found by Dr. Ogino. Based on these facts, Dr. Ogino's reported results would be expected and provide no new information not already reported to the public.

*J. T. Collins*  
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