

00229



UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

ENERGY AND MINERALS
DIVISION



B-166506

OCT 26 1976

The Honorable Robert C. Seamans, Jr.
Administrator, Energy Research and
Development Administration

Dear Mr. Seamans:

We are involved in an ongoing review of the Environmental Protection Agency's (EPA) radiation programs for the setting of standards and monitoring radiation exposure to man and the environment, and its coordination with other Federal agencies. Following the recent detonation of a nuclear device by the People's Republic of China on September 26, 1976, a situation has arisen in this regard which we believe warrants your immediate attention. This involves the roles played by various Government and non-Government entities in detecting, monitoring, and reporting on the fallout from this test.

Under the President's Reorganization Plan No. 3 of 1970, EPA has the overall Federal responsibility for monitoring all radiation related activities to determine the safe levels of public exposure. To effectively carry out this responsibility, EPA must have the cooperation of a number of other Federal agencies--including the Nuclear Regulatory Commission (NRC), the Energy Research and Development Administration (ERDA), and the National Oceanic and Atmospheric Administration (NOAA)--which also have important roles in radiation protection.

Our review of the circumstances surrounding the fallout from this test indicates that some confusion and public concern was generated because of a misunderstanding about the source and potential hazard of the resulting radiation. This occurred because no formal procedures exist for the various agencies responsible for detecting and monitoring radiation

EMD-77-1

activities to communicate with EPA. Thus, EPA was unable to effectively carry out its responsibilities for monitoring radiation levels to determine whether they presented a public hazard and reporting its findings to the public.

CONFUSION OVER THE SOURCE
AND HAZARDS OF THE RADIATION

Higher than normal radiation readings due to the fallout from the radioactive cloud from the Chinese nuclear test and a misunderstanding about the source of this radiation caused initial confusion and public concern over its potential hazards. Near midnight of October 3, 1976, utility officials at the Peach Bottom nuclear powerplant near Delta, Pennsylvania, detected radiation in excess of NRC standards and notified NRC of these readings. Neither the utility nor NRC had been told of the potential fallout from the radioactive cloud, and, as a result, they initially believed the excess radiation resulted from an accidental release from the plant. The utility sent some of its employees home, and, in response to a local radio station's inquiry as to why the employees were sent home, the utility stated that it had detected higher than normal radiation and were investigating the cause.

After learning on the afternoon of October 4, 1976, that the increased radiation was due to the radiation fallout from the Chinese nuclear test, the utility, in response to public inquiries, issued a press release on the radioactive fallout. On the following day, October 5, 1976, the State of Pennsylvania also issued a press release identifying the source of the radiation and warning the public of potential radiation hazards. The State's news release warned the public to carefully wash garden vegetables and stated that there might be dangerously high radioactive levels in milk. To clarify the situation and ease public concern, ERDA subsequently issued, on October 6, 1976, a press release stating that the highest levels did not present any serious risk to public health and safety.

Throughout the United States, EPA has a nationwide network of air monitoring stations which accumulate radiation information. These stations are operated by State and local radiation or public health personnel who provide environmental samples to EPA on a voluntary basis which EPA analyzes to determine increases and decreases in environmental radioactivity. Included in this network are 21 continuously operating air stations and an additional 51 standby air stations.

EPA officials told us that they learned of the potential fallout from NOAA on September 28, 1976, and alerted the standby stations to activate their monitoring devices on September 30, 1976. However, EPA officials stated that no data was reported as of October 5, 1976, because radiation levels did not exceed the level requiring immediate reporting to EPA. Because of increased public concern, EPA by special telephone canvass on October 6, 1976, obtained fallout data from its East Coast sampling stations and informed the public through a press release that the levels were very low but that measurements, especially of milk, were being evaluated.

NEED FOR PROCEDURES TO ENABLE EPA
TO CARRY OUT ITS RESPONSIBILITIES

This confusion and misunderstanding might have been avoided if formal procedures had been implemented requiring ERDA, NRC, and NOAA to provide information on the location and effect of the fallout to EPA on a routine basis. Such information is necessary so that EPA can keep the public and other Federal and State agencies informed.

ERDA maintains radioactive monitoring systems around its nuclear facilities and is responsible for providing official public notice of a nuclear test by a foreign country. ERDA does not have any requirements that information on the resulting fallout be communicated to EPA, NRC, or NOAA. NRC had no knowledge of the cloud's movement or location. As a result, it was not in a position to forewarn its licensees and thereby avoid the misunderstanding and confusion at Peach Bottom. Furthermore, although NRC requires its licensees to continuously monitor the commercial nuclear reactors, it does not have procedures for reporting data on fallout readings to EPA. In this case, NRC did not provide any data on its readings at Peach Bottom to EPA until October 8, 1976--5 days after the fallout occurred. This data was provided on an informal basis.

EPA's monitoring system, which is operated by the State on a voluntary basis, does not call for its immediate reporting of detected levels of radiation regardless of whether it is from fallout or other sources until it exceeds a certain guideline. In this instance, because the readings did not exceed the guideline, EPA was not in a position to provide immediate information to the public on the potential hazards of the fallout until October 6, 1976, after Pennsylvania's and ERDA's releases.

CONCLUSIONS

As nuclear technology is obtained by more foreign countries, the possibilities of above ground nuclear tests increase. Also, there is a heightened public awareness of the dangers associated with nuclear power because of the increasing number of nuclear powerplants and the controversy surrounding this energy source. As a result, to avoid public concern and confusion over the source and extent of increased radioactivity, it is important that EPA receive timely information on the location, movement, and monitoring of radioactive fallout so it can keep any confusion to a minimum and keep the public informed of the potential hazards of a fallout and effectively carry out its responsibilities.

In this most recent fallout, EPA was not in a position to inform the public or other agencies on the extent of the potential hazards on a timely basis. As a result, misunderstandings, concern, and confusion occurred. In our view, cooperative agreements should be developed and implemented between affected agencies setting forth each agency's function and establishing procedures for providing information to EPA.

RECOMMENDATION TO THE ERDA ADMINISTRATOR

We recommended in a similar letter to the EPA Administrator that EPA take the lead in developing and implementing cooperative agreements with other Federal and State agencies --including ERDA--that provide for the coordinated collection of data and subsequent release of information regarding nuclear fallout. EPA could more effectively protect the environment and public health if all affected agencies provided EPA timely information about their activities in detecting and monitoring radioactive fallout.

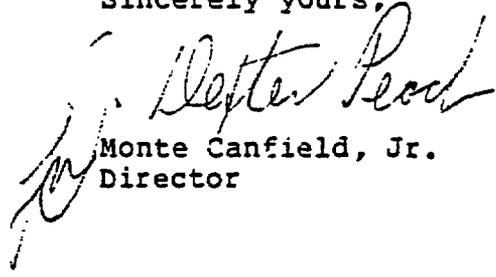
Accordingly, we recommend that ERDA cooperate fully with EPA in these efforts.

As you know, section 236 of the Legislative Reorganization Act of 1970 requires the head of a Federal agency to submit a written statement on actions taken on our recommendations to the House and Senate Committees on Government Operations not later than 60 days after the date of the report and to the House and Senate Committees on Appropriations with the agency's first request for appropriations made more than 60 days after the date of the report.

B-166506

Similar reports are being sent to the Administrators of NOAA and EPA and the Chairman of NRC stressing the need for their cooperation in implementing our recommendations. Copies of this report are also being sent to the Director, Office of Management and Budget; the House and Senate Appropriations, Government Operations, and Oversight Committees for the affected agencies; other concerned committees; and to Congressmen McDade and Ottinger who have addressed inquiries to GAO regarding this matter.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "Monte Canfield, Jr.", is written over the typed name. The signature is fluid and somewhat stylized, with a large initial "M".

Monte Canfield, Jr.
Director