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

COMMUNITY AND ECONOMIC  
DEVELOPMENT DIVISION

B-166506

The Honorable Douglas M. Costle  
Administrator, Environmental  
Protection Agency

MAY 23 1977

Dear Mr. Costle:

We are currently reviewing the Environmental Protection Agency's management of sewage sludge disposal practices. Our review includes a study of the municipal sewage sludge management systems of Chicago, Los Angeles, and New York-New Jersey metropolitan areas. Our objective is to determine whether current sewage sludge disposal practices emphasize beneficial uses of sludge which are safe and environmentally acceptable.

We have identified a potentially hazardous situation which we believe warrants your immediate attention. Sewage sludge products having high amounts of cadmium are being sold or given away to the public for uncontrolled use. We appreciate the difficulties communities have in disposing of the increasing volume of sludge; however, this practice represents a potential health hazard.

As you know, cadmium is a toxic heavy metal which has been classified by the Occupational Safety and Health Administration as a suspected carcinogen. The Food and Drug Administration believes that the levels of cadmium in the American diet are close to the tolerable weekly intakes developed by the World Health Organization and the Food and Agricultural Organization of the United Nations.

In June 1976 EPA published for comment a draft technical bulletin on municipal sewage sludge management. The bulletin stated that numerous conditions affect the level of heavy metals that may be toxic to plants or taken up by crops and eventually consumed by humans. It recommended that projects using sludge on croplands conform to any limitations recommended by the Food and Drug Administration (FDA) or the Department of Agriculture (USDA).

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FDA recommended in its comments on the technical bulletin that sludges containing more than 20 parts per million (ppm) of cadmium not be used on agricultural land and crops in the food chain. USDA scientists recommended that sludges containing more than 25 ppm of cadmium not be applied to privately owned agricultural land unless the cadmium-to-zinc ratio of the sludge is less than or equal to 1.5 percent. In commenting on the draft technical bulletin, EPA's Office of Solid Waste Management suggested maximum allowable cadmium levels similar to those recommended by USDA scientists.

We found that sewage sludge products with cadmium levels substantially higher than the levels suggested above are available nationwide to the public for possible use on agricultural land, including home vegetable gardens. Some of these sludge products contain approximately 3 to 7 times the maximum level of cadmium recommended by FDA and exceed the cadmium-to-zinc ratio suggested by USDA scientists. The literature or labeling for the products we have identified do not caution against use on croplands and, in fact, a brochure for one sludge product indicates that the product would be beneficial for use in vegetable gardens.

In addition to the current sale and the give-away programs of sludge products, municipalities are considering other programs which would result in the use of sludge to grow crops. Your Agency's April 1976 report, "An Overview of the Sludge Management Situation", recognized that large communities are becoming more interested in the land application of sludge and the possibility of selling crops grown on such land to help offset sludge disposal costs.

Sludge products containing toxic materials may eventually be defined as hazardous wastes and regulated under the Resource Conservation and Recovery Act of 1976 (42 U.S.C. 6901). However, we believe that, in view of the substantial margins by which some sludge products currently available to the public exceed maximum suggested levels, EPA should take immediate action to define which of these products could be used to produce food. Action is also needed to inform the public of potential health hazards involved and to assist communities considering adopting sludge disposal systems which use sludge in food production.

RECOMMENDATIONS

We recommend that you provide interim guidance on sludges that are acceptable for agricultural purposes, including use on home vegetable gardens, until such time as the requirements of the Resource Conservation and Recovery Act are implemented. We recommend also that you provide for public notification of the potential health hazard associated with using sludge products which are given away or sold and are deemed unacceptable for agricultural use.

We shall appreciate receiving your comments on this letter and on any actions you plan to take. 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 he has taken on our recommendations to the House Committee on Government Operations and the Senate Committee on Governmental Affairs 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.

Copies of this letter are being sent to the Chairmen, Senate Committees on Governmental Affairs; Environment and Public Works; and Appropriations, Subcommittee on HUD-Independent Agencies; to the Chairmen, House Committees on Government Operations; Appropriations; and Public Works and Transportation; and to the Director, Office of Management and Budget.

Sincerely yours,



Henry Eschwege  
Director