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FEDERAL POLICY REGARDING DIOXIN DISPOSAL

JUL 2 1987

MEMORANDUM

SUBJECT: Clarification of Federal Policy Regarding  
Dioxin Disposal

FROM: Marcia Williams, Director  
Office of Solid Waste

TO: Conrad Simon, Director  
Air and Waste Management Division  
Region II

In your memo dated May 20, 1987, you requested our assistance in developing a definitive statement to address certain public concerns over EPA's regulation of dioxin-containing wastes. Specifically, you requested our assistance in drafting a proposed response to a letter from New York State Senator John Daly.

First, I would like to clarify the Federal regulations with regard to the disposal of dioxin and dioxin-contaminated material. On January 14, 1985 (50 FR 1978), EPA amended the regulations for hazardous waste management under RCRA by listing as acute hazardous wastes, process wastes from the manufacturing use of tetra-, penta-, or hexachlorobenzenes under alkaline conditions; wastes from the production and manufacturing use of tri-, tetra-, and pentachlorophenols and their chlorophenoxy derivatives; and discarded unused formulations containing compounds derived from these chlorophenols. Also listed were wastes that are generated in the course of a manufacturing process performed on equipment previously used for such operations, except where the equipment was used only for the manufacture or formulation of pentachlorophenols or its derivatives. In addition, soils contaminated with these wastes are also regulated.

Under 40 CFR 261.31 of RCRA the dioxin-containing wastes are brought under Subtitle C control through the listing of specific processes which generate dioxin, it is incorrect to imply that toxicity is not considered in the listing process.

The basis for listing these wastes can be summarized as follows:

- . The contaminants of concern in these wastes are chlorinated dibenzo-p-dioxins (CDDs) and chlorinated dibenzofurans (CDFs), tri-, tetra-, and pentachlorophenols, and the chlorophenoxy derivatives of these chlorophenols.
- . The toxicants of concern are likely to be present in the listed wastes at concentrations many orders of magnitude greater than the levels of concern in terms of human health. For example, analysis of distillation bottoms from manufacturing processes making or using trichlorophenols can contain several hundred ppm TCDDs, filter aids may contain up to 6000 ppm TCDDs, and cooling pond muds were shown to contain as much as 1200 ppm CDDs.
- . The contaminants of concern are not only present in these wastes in significant concentrations but are capable of migrating from waste matrices and reaching environmental receptors in potentially dangerous concentrations, particularly as a result of water run-off or wind dispersion of contaminated particles. These wastes have been associated with some of the most serious hazardous waste damage incidents known, among them Love Canal and Times Beach.

We, therefore, believe that the most hazardous dioxin-containing waste streams are covered by these listings. Although the Agency recognized at the time this rule was promulgated that there were other wastes which contained or may have contained dioxins, (i.e., chlorinated benzenes, dichlorophenol process wastes, fly ash and emission control dust from low temperature combustion of chlorophenols, and presently unlisted residues from wood preserving) not enough data were available to support rule-making. For example, the Agency did not have data with regard to the concentration of dioxins in such wastes and the likelihood of the waste posing a threat to human health or the environment. Although these wastes are not required to be managed in accordance with the special management standards promulgated under RCRA, these wastes are most likely toxic and should be carefully managed. For example, these wastes can be safely managed by high temperature incineration.

Since then, the Agency has collected some of this additional information. This information, for example, has been used by EPA to support a draft proposed rule, which is currently under Agency review, to list residues generated from the use of chlorophenolic formulations in wood preserving and surface treating operations.

The Agency also is continuing to investigate a number of dioxin issues. For instance, the Water Office is exploring the formation of dioxins from the pulp and paper industry's bleached kraft process. The Agency is also developing a new exposure assessment that may be used to enhance our understanding of the risks associated with dioxin.

It should also be noted that the listing process is only one mechanism by which the Agency has control of problems posed by dioxin. Facilities, which have submitted a Part B permit application or are subject to interim status are now subject to the new corrective action provisions (Sec. 3004(u)). This requires that all permit applicants must: identify all solid waste management units at the facility; identify any releases of hazardous wastes or hazardous constituents that have occurred or are occurring from those units; take appropriate corrective measures to clean up releases; and demonstrate financial assurance for those corrective measures.

Furthermore, dioxin and dioxin-contaminated soil are also subject to clean-up under CERCLA as remedial action if the site is on the National Priority List or as emergency response if there is a need to abate a significant threat to public health and welfare or the environment. To date, the Agency has taken removal action if the Agency for Toxic Substances and Disease Registry (ATSDR) issues a health advisory for the site. ATSDR has traditionally viewed 1 ppb as a level of concern for residential settings. However, under the remedial program, the long-term threats posed by each site are evaluated and pathways of exposure are considered. Based on differing site conditions, EPA may consider other action levels. The Agency expects to select the remedy for five remedial sites this summer. Thus, the Agency is in the process of formulating a policy for setting trigger and clean-up levels in response to these anticipated site clean-ups.

Finally, the requirements governing the disposal of listed dioxin wastes (F020-F023, and F026-F028) in landfills are set forth at 40 CFR 264.317. Effective November 8, 1988, the dioxin-containing wastes specified in 40 CFR 261.31 as EPA Hazardous Waste Nos. F020F023, F026, and F027 are prohibited from land disposal if they do not meet the treatment standards specified at 40 CFR 268.41.

Please feel free to contact me if you have any further questions.