

PPC 9554.1986(01)

LAND DISPOSAL RESTRICTIONS HEARING ON FEB, 1986 RESPONSES

MAR 27 1986

MEMORANDUM

SUBJECT: Responses to additional questions raised by Senator Mitchell from the Land Disposal Restriction hearing on February 24, 1986

FROM: Eileen M. Claussen, Director
Characterization and Assessment Division (WH-562B)

TO: Lynn Pirozzoli
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for Solid Waste and Emergency Response

Attached are the additional and responses for Senator Mitchell concerning the hearing before the Subcommittee on Environmental Pollution of the Senate Committee on Environment and Public Works.

We are also submitting the necessary documentation in support of these answers. Since this documentation is so voluminous, please advise Senator Mitchell that we will delegate a staff person to assist him and Committee staff in reviewing and interpreting the data, if he so desires.

Attachments

Q: What is the basis for EPA's estimate that 95 percent of the solvents and dioxins will need to be treated prior to land disposal using the EPA proposed methodology?

A: Solvents

EPA's listing program (managed by OSW) has collected qualitative and quantitative characteristic data for wastes generated by various industries to determine which new wastes should be considered hazardous under RCRA. While this program does not collect data on existing waste codes, the data collected for this program is the best information available to EPA on the concentration of constituents in wastes and therefore was the basis for estimating the characteristics of wastes subject to the ban.

Based on extrapolations of these data, EPA believes that virtually all of the solvent wastes currently land disposed exceed the screening levels and would require treatment. These data are described in detail in Volume III of the "Background Document for Solvents to Support 40 CFR Part 268, Land Disposal Restrictions." As Table C-1 on page 26 indicates, the mean of the total solvent concentrations exceeds 3,000 parts per million (0.30% by weight) for all solvent-containing wastes, managed by all management techniques. Because this number is so much higher than the proposed regulatory levels, we believe now all solvent-containing wastes will be treated. Because of the limitations of these data, the Agency is taking a conservative approach in

assessing capacity demands for setting effective dates and thus is assuming that 5 percent of all solvent wastes will not require treatment.

Dioxins

In considering the quantity of dioxin-containing waste subject to treatment before land disposal, the Agency excluded dioxin-contaminated soils. There are approximately 500,000 MT of these soils; however, these wastes do not become subject to restriction until 1988 since they are contaminated soils resulting from CERCLA response actions (see Section 3004(e)(3)). Mr. Porter's statement addresses only dioxin-containing wastes that will be subject to restriction on November 8, 1986.

Agency data in support of the dioxin listings indicate that 6,650 metric tone on dioxin-containing waste (excluding soils) have been generated as of mid 1985. These wastes include the following non-aqueous, relatively non-solid wastes:

- still bottoms from herbicide manufacture
- non-aqueous liquid leachate
- spent carbon from aqueous phase treatment
- wastewaters and
- still bottoms from PCP product purification.

The existing data show total dioxin concentrations of 0.6 - 110,000 ppm in these wastes. These data are summarized in Exhibit 6-1 of the draft "Regulatory Analysis of

Proposed Restrictions on Land Disposal of Certain Dioxin-Containing Wastes."

Since dioxin-containing wastes, for the most part, are liquids, the dioxin concentration in the leachate will equal the total dioxin concentration in the waste. Dioxin-contaminated still bottoms which often are sludges typically contain organic solvents such as toluene and methanol. Since solvents, when co-disposed with other hazardous wastes, are known to mobilize organic constituents which otherwise may be immobile or relatively non-mobile, a similar effect can be expected for dioxin-contaminated still bottoms containing solvents. Thus, the leachate from these wastes can reasonable be expected to contain dioxins in concentrations well above the 1 ppb screening level.

Agency data support a conclusion that all dioxin-containing wastes (excluding soils) will require treatment before land disposal. However, the Agency again is taking a conservative approach in determining capacity demand by stating that 95 percent of these wastes will require treatment.

EPA does believe that most dioxin-contaminated soils (subject to the November 1988 deadline) will not require treatment under the proposed treatment standards. Extraction procedure testing conducted on six samples of dioxin contaminated soils

(ranging from 3 to 1,200 ppb of 2,3,7,8 - TCDD) indicated that none of the samples leached detectable (i.e., 1 ppb) levels of dioxins. (See Evaluation of Dioxin Extraction in the Toxicity Characteristic Leaching Procedure, attached.)

QQ: What percentage of the solvents would need to be pretreated under EPA's proposed methodology if there was no adjustment in the screening levels for liner protection?

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A: To respond to this question, it would be necessary to have detailed waste characterization data indicating the distribution of constituent concentrations in waste streams by volume of waste. The data relied on in response to the previous question is, unfortunately, not detailed enough to enable us to respond to this question.