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OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE

FEB 11 1988

MEMORANDUM

SUBJECT: Regulatory Interpretation

FROM: Marcia E. Williams, Director (WH-562)
Office of Solid Waste

TO: Judy Kertcher, Acting Chief (5HS-13)
Solid Waste Branch, Region V

As requested by Chevron Chemical Company, a meeting was held on October 23, 1987 with Chevron representatives and members of my staff to discuss the possibilities for reversing an earlier interpretation made by the Agency that a still bottom waste generated at their polystyrene production facility in Marietta, Ohio, is a F005 hazardous waste. (See attached memo EPA/OSW to EPA Region , September 1, 1987.

During the meeting, the Chevron attendees agreed to forward our office additional information that would support their opinion that their waste is a process waste contaminated with toluene (4%) and does not meet the definition of a spent solve (EPA Hazardous Waste No. F005).

After careful review of the information that has since been forwarded, our Office agrees the waste is not the F005 hazardous waste as was interpreted earlier. Chevron uses toluene as both a solvent (i.e., to solubilize small quantities of additives) and a feedstock (i.e., a chain transfer agent) in their process. The primary purpose of the toluene, however, is to control the rate of reaction as a chain transfer agent. During the reaction, polymer chain growth proceeds until it is stopped by some event such as an encounter between two "growing" ends of a chain resulting in mutual termination or utilization of a readily removable group from another molecule (chain transfer agent). Every toluene molecule utilized in this chain transfer activity then becomes a "seed" and an inherent part for the growth of a new polymer chain, and, as a result, is partially consumed. The excess toluene is recovered for reuse in the process. Chevron claims that years of research indicate that toluene is used in lieu of other chemical agents because it is the ideal chain transfer agent for their process and is safer to use.

A similar issue was reviewed by the Agency several years ago. In that case, toluene, methanol, and m-cresol (common solvents) were used as reactants in the production of pesticide products. The quantities of these materials fed into the process were of such excess, that large amounts of the chemicals did not react and had to be removed from the process as waste. The Agency concluded that these wastes were not the listed spent solvent wastes because toluene, methanol, and m-cresol were used as chemical reactants in the production process. (See attached letter EPA/OSW to R. Scott, Mobay Chemical Corp, May 24, 1985).

Based on the similarities of the use of toluene in Chevron's process and the process cited above, in addition to the additional information received from Chevron; our Office has determined that the recovered toluene is not an F005 hazardous spent solvent waste. Therefore, the still bottoms that are generated from this process are also not an F005 waste.

Please advise Chevron of our interpretation and make them aware that as the generator of this waste, they are responsible for determining whether the still bottoms exhibit any RCRA hazardous characteristics (e.g., corrosivity, toxicity, reactivity, or ignitability-see 40 CFR 261.21-24). Also, you should investigate whether this waste is regulated by the state, which may have more stringent regulations. Finally, careful handling of the still bottom waste is advised because of Superfund liability that exists for wastes containing CERCLA hazardous constituents.

If you have any questions regarding this matter, or if you wish to discuss the matter further, please contact Ed Abrams, FTS 382-4787, or my staff.

WH562B