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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

OCT 11 1991

N.G. Kaul, P.E.

Director

Division of Hazardous Substance Regulation

New York State Department of Environmental Conservation

50 Wolf Road

Albany, New York 12233

Dear Mr. Kaul:

Thank you for your letter of June 21 1991, responding to a May 3, 1991 letter we received from Mike Bates of the State of Arkansas. Mr. Bates' letter requested clarification of the federal Resource Conservation and Recovery Act (RCRA) Subtitle C regulations governing the management of certain materials used as ingredients in the production of fertilizers. Your letter discussed application of the federal regulations to this situation and raised several additional issues as well.

Specifically, Mr. Bates' letter requested clarification of how materials and activities would be regulated under the federal regulations in a situation involving the following facts:

- A generator generates a baghouse dust that is not a listed waste identified in 40 CFR 261.32 or 261.33 (or, we assume, 40 CFR 261.31);
- The baghouse dust, which has a high concentration of zinc, fails the Toxicity Characteristic for lead;
- The dust is a "sludge," as defined in 40 CFR 260.10 because it is generated in an air pollution control facility; and
- The generator would like to send the baghouse dust to a producer that could use the dust as an ingredient in fertilizer for the zinc content.

We will also address the case raised by other states in which lead is first recovered from the dust prior to its use as an ingredient in fertilizer production process.

To determine how the federal hazardous waste regulations apply to management of any material the first determination that must be made is whether the material in question is a solid waste, since by definition a hazardous waste must first be a solid waste (40 CFR 261.3). For materials that are recycled, 40 CFR 261.2(c) defines those materials that are solid wastes. If the material is both a solid waste and a hazardous waste, the waste management activities must then be evaluated to identify applicable requirements.

In the situation described by Mr. Bates, the baghouse dust would be a solid waste because it is a sludge exhibiting a characteristic of hazardous waste which is to be used to produce a product that is applied to or placed on the land (i.e., used in a manner constituting disposal). (See 40 CFR 261.2(c)(1)(i)(B).) Since the dust exhibits the Toxicity Characteristic, it is also a hazardous waste (40 CFR 261.3(a)(2)(i)).

Similarly, if the baghouse dust were sent to a facility at which lead was recovered from the dust prior to shipment to the fertilizer producer, the baghouse dust would also be a solid waste under 40 CFR 261.2(c)(1)(i)(B) because it continues to be a characteristic sludge which is to be used to produce a fertilizer. This is the case because some portion of the dust is to be used in a manner constituting disposal, even though another portion (the recovered lead) will not be used in such a way. In other words, the solid waste determination for a recycled material is made at the point of generation of the waste, and takes into account the entire waste recycling process, not just the first step in a waste recycling train.

For completeness it should also be noted that the regulatory status of the dust after the lead recovery step would depend on whether the dust exhibited any hazardous waste characteristics. Thus, if the dust exhibited a characteristic it would continue to be a solid and hazardous waste, again because it would be a characteristic sludge to be used in a manner constituting disposal. On the other hand, if the dust did not exhibit any characteristics after the lead recovery step, it would not be a

hazardous waste at that point.

Once the regulatory status of a recycled material is determined, the applicable management requirements are specified in 40 CFR 261.6. For the characteristic sludge which is to be used in a manner constituting disposal, the generator and any transporters would be subject to the applicable requirements of 40 CFR Parts 262, 263, and 268 (including use of the manifest), and the recycling facility (storer) to the applicable requirements of Subparts A through L of 40 CFR Parts 264 and 265 268, 270, and 124. (See 40 CFR §§ 261.6(a)(2)(i), 266.21, and 266.22.) The recycling process itself (lead recovery and/or fertilizer production), assuming it is legitimate recycling, would not be subject to Subtitle C regulation.

Once the fertilizer is produced, if it meets the conditions of 40 CFR 266.20(b) (i.e., is produced for the general public's use and meets the applicable land disposal restrictions treatment standards in 40 CFR Part 268, Subpart D), the fertilizer is not presently subject to regulation (although under 40 CFR §261.2(c)(1)(i)(B) the fertilizer remains a solid waste, and 40 CFR 268.7(b)(7) recordkeeping requirements would be applicable). If the fertilizer did not meet the conditions of 40 CFR 266.20(b), use of the product would be subject to 40 CFR 266.23 (i.e., full Subtitle C regulation).

Please note that fertilizers produced using solid wastes are solid wastes under 40 CFR 261.2(c)(1)(i)(B). Although, as you noted in your letter, 40 CFR 261.2(c)(ii) does include both commercial chemical products that are listed and those that exhibit characteristics, this provision applies only to non-waste-derived products. Fertilizers that are produced using solid wastes continue to be solid wastes under 40 CFR 261.2(c)(1)(i)(B) .

There are several additional points that I would like to make on this topic. First, I believe that some background on the development of the use constituting disposal regulations will shed some light on the reason the regulations are structured as they are. When these regulations were promulgated on January 4, 1985 (50 FR 614), the preamble explained that RCRA Subtitle C jurisdiction unquestionably encompasses wastes that are placed on the land (used in a manner constituting disposal) because this

type of recycling is so similar to normal forms of waste management (i.e., land disposal). In fact, placement on the land is one of the activities that Congress most clearly intended to control under RCRA. As with any other waste that is to be managed in a manner that is analogous to disposal, generation, transportation, and storage of any wastes that are (even in part) to be used to produce waste-derived products are regulated (as are those that are used directly on the land).

Second, there was a discussion in the January 4, 1985 Federal Register notice explaining that in the future, the Agency envisioned developing a more tailored regulatory system for waste-derived products recycled by placement on the land. Such a system would take into account the safety of the product (e.g., levels of hazardous constituents in the wastes, likely routes of exposure, etc.). We will shortly be proposing a rule that will allow producers of waste-derived products placed on the land to make such a demonstration.

In your letter you also raised the issue of how the use (or fate) of hazardous constituents in a recycling process should be viewed when evaluating the legitimacy of the process. We agree with you that this is an important consideration in determining whether a recycling process is legitimate, and thus whether recycling exemptions are applicable (e.g., 40 CFR §§ 261.2(c)(3), 261.2(c)(4), 261.2(e), 261.4(a)(8), and 261.6). We have addressed this issue in the past in several preambles (see the January 4, 1985 Federal Register (50 FR 638, 648-9) and the January 8, 1988 Federal Register (53 FR 526-7)) and in guidance to the Regional Offices (see the enclosed April 26, 1989 memorandum from Sylvia Lowrance to EPA's Hazardous Waste Management Division Directors in Regions I-X). For example, criteria to be used to evaluate the legitimacy of recycling include the following:

- Does the waste contain Appendix VIII constituents not found in the analogous raw material/product (or at higher levels)?
- Does the waste exhibit hazardous characteristics that the analogous raw materials/product would not?
- Are the toxic constituents actually necessary (or of

sufficient use) to the product or are they not necessary for the product?

Further, as you may know, we are currently undertaking a larger effort to reevaluate the overall approach to regulation of hazardous waste recycling activities and to make changes to ensure that the regulations encourage environmentally beneficial recycling. We expect to publish an Advanced Notice of Proposed Rulemaking in the Federal Register soon which discusses our current thinking on this topic and solicits comment on a number of possible approaches. The notice explores ways to improve implementation of the hazardous waste regulations by more clearly defining sham recycling and/or by requiring persons claiming recycling exemptions to notify the implementing agency of their activities. I strongly encourage you to review this notice and give us your thoughts on the broad issues discussed as well as on the sham recycling issue. The input of state agencies implementing the RCRA program will be very important to the success of this project.

Thank you for bringing these issues to my attention. Should you require any further information or have any additional questions, please call Mike Petruska, Chief of the Regulatory Development Branch, at (202) 260-8551.

Sincerely,

Sylvia K. Lowrance, Director  
Office of Solid Waste

Enclosure