

April 12, 1999

Chris Bryant
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1300 I Street, NW
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Washington, D.C. 20005

Dear Mr. Bryant:

Thank you for your letter of May 3, 1998 requesting clarification about the status under the Resource Conservation and Recovery Act (RCRA) of spent or unused fluorescent lamps that are sent for reclamation and that exhibit the Toxicity Characteristic (TC) because of the presence of mercury.

As you know, the regulatory status under the federal RCRA regulatory program of a secondary material being recycled depends upon both the type of material and the type of recycling being conducted. Some materials that are reclaimed are not solid wastes under the federal program and thus are not regulated. The U.S. Environmental Protection Agency (EPA) agrees with the State of Ohio that **unused** mercury lamps are commercial chemical products and are not solid wastes if reclaimed. However, EPA considers **used** mercury lamps to be spent materials and to be solid wastes under the federal program, if reclaimed. (For further information, see enclosed March 24, 1994 memorandum from Michael Shapiro, Director, Office of Solid Waste, EPA, to Hazardous Waste Management Division Directors, EPA Regions I-X.) Thus, generators of spent mercury-containing lamps that exhibit the TC are subject to federal regulations under RCRA Subtitle C governing hazardous waste management for the management of these lamps in states that are not authorized to manage these wastes. Generators are subject to all applicable requirements of 40 CFR parts 260 through 268, including the on-site management, pre-transport, and manifesting requirements of 40 CFR part 262. Although your letter did not specifically request information regarding mercury-containing electronic devices, it should be noted that EPA's position on these devices would be the same as that described above for mercury-containing lamps.

You should also be aware that EPA is considering adding spent mercury-containing lamps to the scope of the federal universal waste program (see proposed rule at 59 Fed. Reg. 38288, July 27, 1994). If this happens, a state could decide to adopt that portion of the federal universal waste rule, thus allowing handlers in that state to manage these lamps under the regulatory structure of the universal waste program. Even if spent mercury-containing lamps are not added to the scope of the federal universal waste program, authorized states have been given the authority to add materials to the scope of their state's universal waste program. Therefore, if a particular state has adopted the universal waste program and adds spent mercury-containing lamps, handlers in that state could also manage these lamps under the regulatory structure of the universal waste program. Handlers in such states who choose to manage their spent mercury-containing lamps as universal waste would then be subject to a streamlined set of requirements for the collection, storage, and transportation of such wastes.

You also ask whether the Agency would pursue an enforcement action against a generator in Ohio that does not manage their lamps as hazardous wastes. The Agency has a policy against giving definitive assurances that it will not proceed with formal enforcement actions in situations like this.

We appreciate the opportunity to respond to your request. If you have any additional questions regarding fluorescent lamps, please contact Marilyn Goode at (703) 308-8800. For questions regarding regulatory enforcement, please contact Caroline Ahearn at (202) 564-4022.

Sincerely,

Stephen F. Heare, Acting Director
Permits and State Programs Division (5303W)
Office of Solid Waste

Enclosure

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RO 14468

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United States Environmental Protection Agency
Washington, D.C. 20460
Office of Solid Waste and Emergency Response

March 24, 1994

MEMORANDUM

SUBJECT: Definition of Spent Material

FROM: Michael Shapiro, Director
Office of Solid Waste

TO: Hazardous Waste Management Division Directors
Regions I-X

The purpose of this memorandum is to clarify when a secondary material meets the definition of "spent material." A spent material is "any material that has been used and as a result of contamination can no longer serve the purpose for which it was produced without further processing." 40 CFR 261.1(c)(1). A number of EPA Regions have requested assistance from EPA Headquarters on making regulatory determinations for secondary materials that may meet the regulatory definition of spent material. For many secondary materials this determination is important because spent materials being reclaimed are solid wastes. 40 CFR 261.2(c)(3). However, sludges and byproducts that exhibit a characteristic of a hazardous waste and commercial chemical products (whether listed or characteristic) are not solid wastes when reclaimed. 40 CFR 261.2(c).

In particular, EPA Headquarters has been asked whether in order to meet the definition of spent material, a material must: 1) be spent as a result of contamination, and 2) be nonfunctional in the sense that it could not continue to be used for its original purpose. We have consistently interpreted this definition as applying to "materials that have been used and are no longer fit for use without being regenerated." 50 FR at 618 (January 4, 1985); 48 FR at 14476 (April 4, 1983). We thus consider "contamination", as used in the definition of spent material, to be any impurity, factor or circumstance which causes the material to be taken out of service for reprocessing. (See also 50 FR at 624, indicating that the reference to contamination was added to clarify that a material such as a solvent may continue to be used for its original, though not identical, purpose and not yet be classified as a solid waste.)

Similarly, we consider the part of the definition stating that a spent material Acan no longer serve the purpose for which it was produced@ as being satisfied when the material is no longer serving its original purpose and is being reprocessed instead. EPA has consistently maintained this interpretation since it promulgated the definition of spent material.¹

This is the only interpretation that makes environmental sense, since once used materials are taken out of service and sent for reclamation they pose the same potential risks and are handled in the same manner regardless of the reason they are taken out of service. Put in terms of a specific example, lead acid batteries that are taken out of service and sent to a lead reclaimer pose the same risks and are handled the same way no matter how many or how few physical and chemical impurities they contain, and no matter how much or how little the presence of impurities contributes to the decision to stop using the battery in the first place. See *United States v. Ilco Inc.*, 996 F. 2d 1126 (11th Cir. 1993), where the court held that all batteries sent to a secondary lead smelter for recovery were "spent materials" without regard for the reason the batteries were taken out of service.

As another example, when a generator removes mercury-bearing thermostats from buildings as part of an upgrade to the building's heating system, the thermostats could continue to be used for the remaining portion of their useful lives. However, assuming the generator intends to ship these thermostats to a reclamation facility for mercury recovery, these thermostats would be considered to be spent materials irrespective of the reason for their removal and the fact that the thermostats were potentially capable of being used as thermostats in another building.

Background/Analysis

Under RCRA Subtitle C regulations, a spent material is "any material that has been used and as a result of contamination can longer serve the purpose for which it was produced without processing." 40 CFR 261.1(c)(1). This definition was promulgated in the 1985 final rule amending the definition of solid waste. 50 FR 614, January 4, 1985.

¹See 50 FR at 650 (January 4, 1985), indicating that spent batteries, spent mercury, spent acids and caustics remain subject to regulation when reclaimed regardless of the reason these wastes are removed from service, November 6, 1986 letter from Matt Straus to H. Bzura stating that copper etchants sent for reclamation were defined as "spent materials (i.e., materials that have been used [sic] are no longer fit for use without being regenerated, reclaimed, or otherwise reprocessed)." See also April 14, 1989 later from Stephan Cochran to Robert Oleszko indicating that ignitron tubes containing mercury sent for reclamation were spent materials irrespective of the reason that the tube was taken out of service.

The preamble to the final rule makes it clear that the "as a result of contamination" language was added to avoid classifying as waste a used material that was actually being put to further direct use. 50 FR at 624. The preamble gives the example of a solvent that is not clean enough to clean circuit boards but still clean enough for use as a metal degreaser.

The reason the "as a result of contamination" language was chosen is because many spent materials such as solvents and spent activated carbon typically become spent because of impurities. The Agency did not intend to restrict the definition of spent materials to only those materials which became spent as a result of this type of contamination. On the contrary, in the same rule that the Agency defined spent material, EPA promulgated regulatory requirements under Subtitle C for spent lead-acid batteries being reclaimed. The Agency explicitly classified spent lead-acid batteries as spent materials in the final rule. 50 FR at 625. These batteries become "spent" for a variety of reasons (e.g., overcharging, frozen electrolyte, leakage) all of which EPA regards as being "contamination" for purposes of the definition.

Regarding whether a material must be nonfunctional to meet the definition of spent material, the fact that a material can continue to be used for its original purpose is not relevant to the issue of whether or not it is a spent material when it is clear from the facts that the material will not be used but instead will be treated by reclamation. The mere potential for continued original use does not preclude a material from being defined as spent. As stated above, the fact that it is actually removed from service establishes, as to this generator, that it can no longer serve its original purpose.

If all that were required to avoid RCRA Subtitle C regulation would be a showing that a secondary material could continue to be used, then generators would be able to circumvent RCRA simply through changing their operating practices to remove secondary materials just prior to that material being unfit for its original use. Thus, spent solvents that are heavily contaminated but might still be fit for metal degreasing (even though they were being sent to be regenerated into new solvents), spent lead-acid batteries that still had a charge (or were capable of holding a charge), and mercury-bearing thermostats removed from buildings sent for reclamation would not be subject to RCRA regulation in spite of the fact that the generator was no longer using the material but instead was sending it to be treated by reclamation.

Clearly, this result is not consistent with the cradle-to-grave purpose of RCRA Subtitle C regulation. Used materials taken out of service and sent for reclamation also pose the same risks and are handled in the same manner regardless of the reason they are taken out of service. For this reason, EPA has consistently interpreted spent materials as including materials which could continue to be used for their original purpose but are, in fact, being taken out of service for reclamation, showing that for this

generator they can no longer serve the purpose for which they were produced² (see footnote 2).

Conclusion

Because spent materials being reclaimed (or to be reclaimed) are within the definition of solid waste, it is important to be able to distinguish among spent materials, other categories of solid wastes such as sludges, and products which are still in use that have not been discarded. Spent materials are distinguished from products and other categories of solid wastes in that they have been used previously and have been taken out of service and are going to be treated by reclamation. Examples of spent materials include spent lead-acid batteries, used mercury switches, spent solvents, spent catalysts and spent etchants.

This memorandum states the Agency's consistent interpretation of the existing regulations. However, EPA recognizes the issues regarding the regulatory definition of spent material and we may consider revising the regulatory definition in the future. If you have further questions on this issue, please call Mike Petruska of my staff at (202) 260-8551.

cc: Susan Bromm
Susan O'Keefe
NEIC, Frank Covington
ASTSWMO, Tom Kennedy

²See May 20, 1987 letter from Matthew Straus to Peter Russell indicating that spent pickle liquor becomes a spent material/solid waste when it is removed from pickling line baths for reclamation regardless if it can continue to be used. See also July 15, 1990 letter from Sylvia Lowrance to Ralph Eschborn indicating that photographic fixer bath sent for reclamation is a spent material even though the solution could continue to be used as a fixer.