

US EPA ARCHIVE DOCUMENT

DCN SCSP-00034

COMMENTER Dept. of the Army (AEHA)

SUBJECT DATA6

COMMENT describes the hazardous waste characteristics of incandescent lamps. They should also be added to the "universal waste" due to their characterization as hazardous waste due to lead used in solder.

RESPONSE

The Agency appreciates the commenter's submission of additional data addressing issues pertaining to hazardous waste lamp management.

Today's rule adds all hazardous waste lamps to the scope of the universal waste rule (40 CFR Part 273). EPA studies and data from commenters shown that the majority of hazardous waste lamps fail the TCLP for mercury and sometimes for lead. Spent lamps that exhibit any of the hazardous waste characteristics are subject to today's rulemaking.

In the proposed rule, the Agency proposed definitions for **Aelectric lamp** and **Amercury-containing lamp**. To both clarify and simplify the proposed definitions, and in response to comments, the Agency finalized a single definition of **Alamp**. The final definition (40 CFR 260.10 and 40 CFR 273.9), specifies that a **ALamp**, also referred to as **Auniversal waste lamp** is defined as the bulb or tube portion of an electric lighting device. A lamp is specifically designed to produce radiant energy, most often in the ultraviolet, visible, and infra-red regions of the electromagnetic spectrum. Examples of common universal waste electric lamps include, but are not limited to, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps.

DCN FLEP-00071

COMMENTER Sterling Environmental Services, Inc.

SUBJECT DATA6

COMMENT Please find the enclosed study that was performed by Sterling Environmental for a client to properly characterize spent light bulbs as a waste stream. In reading your proposed rule for mercury containing lamps (July 27, 1994) I felt that the enclosed study may be of interest to you. One issue that we had found in our study that was not mentioned in the rule is the presence of leachable lead in various light bulbs along with the mercury.

RESPONSE

The Agency appreciates the commenter's submission of additional data addressing issues pertaining to hazardous waste lamp management.

Today's rule adds all hazardous waste lamps to the scope of the universal waste rule (40 CFR Part

273). EPA studies and data from commenters have shown that the majority of hazardous waste lamps fail the TCLP for mercury and sometimes for lead. Spent lamps that exhibit any of the hazardous waste characteristics are subject to today's rulemaking.

In the proposed rule, the Agency proposed definitions for *electric lamp* and *mercury-containing lamp*. To both clarify and simplify the proposed definitions, and in response to comments, the Agency finalized a single definition of *lamp*. The final definition (40 CFR 260.10 and 40 CFR 273.9), specifies that a *Lamp*, also referred to as *universal waste lamp* is defined as the bulb or tube portion of an electric lighting device. A lamp is specifically designed to produce radiant energy, most often in the ultraviolet, visible, and infra-red regions of the electromagnetic spectrum. Examples of common universal waste electric lamps include, but are not limited to, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps.

DCN FLEP-00136

COMMENTER Wisconsin Dept. of Natural Resources

SUBJECT DATA6

COMMENT While some additional materials may be contaminated, this should minimize mercury absorption by steel. Additionally, the Department does not believe that it is appropriate for mercury-containing lamps to be crushed by anyone other than the recycler. However, other lighting wastes, such as incandescent light bulbs, can likely be safely crushed and better managed in this manner.

RESPONSE

The Agency appreciates the commenter's submission of additional data addressing issues pertaining to hazardous waste lamp management.

Today's rule adds all hazardous waste lamps to the scope of the universal waste rule (40 CFR Part 273). EPA studies and data from commenters have shown that the majority of hazardous waste lamps fail the TCLP for mercury and sometimes for lead. Spent lamps that exhibit any of the hazardous waste characteristics are subject to today's rulemaking.

The current universal waste rule prohibits universal waste handlers from treating universal wastes (40 CFR ' 273.11 and 273.31). The final rule for hazardous waste lamps retains the treatment prohibition for universal waste handlers and applies the prohibition to handlers of hazardous waste lamps. The definition of treatment under RCRA includes *any method, technique, or process...designed to change the physical, chemical, or biological character or composition of any hazardous waste, so as to neutralize such waste, or so as to recover energy or material resources from the waste, or so as to render such waste non-hazardous, or less hazardous; safer to transport, store or dispose of; or amenable for recovery, amenable for storage, or reduced in volume.* The crushing of hazardous waste lamps clearly falls within the definition of treatment

under RCRA (40 CFR 260.10).

Some commenters to the proposed spent hazardous waste lamps rule requested that the Agency allow generators of such lamps to crush them on-site before sending them off-site for treatment or disposal. However, as explained in the preamble to the final universal waste rule (60 **FR** 25519), the Agency believes that it is not appropriate to allow universal waste handlers to treat universal wastes because the handlers are not required to comply with the Subtitle C hazardous waste management standards for generators (40 CFR Part 262). These hazardous waste generators must obtain EPA identification numbers, are subject to the 90-day (or 180-day) accumulation limit, and must comply with the technical standards of 40 CFR Part 265 for storage and accumulation units. Because these standards are relatively stringent, EPA's policy is that generators may treat hazardous wastes on-site, provided that they comply with all applicable requirements of 40 CFR Part 262 for storage and accumulation of hazardous wastes.

Universal waste handlers, on the other hand, are provided with a much longer accumulation time limit of one year and need not comply with specific technical standards for accumulation and storage units. Instead, they are subject only to the general performance standard of managing universal wastes in a manner that prevents releases to the environment. In addition, information available to the Agency on drum top crushing systems for lamps indicates that these units may allow significant air emissions of mercury, particularly when the units are not in operation, and emissions often may exceed the OSHA limit of 0.05 mg/m³.

For these reasons, the Agency is not allowing crushing of hazardous waste lamps under federal regulations. However, generators located in a state with an authorized universal waste program may be allowed to treat, or crush, universal waste lamps, if within the state authorization process the Agency determines that a state's program allowing generators to treat lamps under controlled or restricted conditions is equivalent (per RCRA ' 3006) to the federal prohibition.