

US EPA ARCHIVE DOCUMENT

DCN FLEP-00032

COMMENTS Niagara Mohawk

SUBJECT UNWAS2

COMMENT 6. NMPC would like to propose that for all other lighting waste, at a minimum they be placed within the realm of the universal waste rule. Nevertheless, when the data is submitted which supports an outright exclusion for the other types of lighting wastes from regulation, at that point lighting waste could be excluded pursuant to a similar option, like option 1 under this rule. Again, the concern for participation in the Green Lights program continues as it applies to other lighting waste and thus, the EPA should use every opportunity to exclude lighting waste from regulation.

RESPONSE

Today's final rule adds hazardous waste lamps to the universal waste regulations under 40 CFR Part 273. The final rule applies to all lamps that exhibit a hazardous waste characteristic. EPA studies have shown that the majority of hazardous waste lamps fail the TCLP for mercury and sometimes for lead. The universal waste rule provides a reduced, or streamlined set of requirements (i.e., universal waste rule is less stringent than Subtitle C management standards).

The Agency does not believe that its proposed conditional exclusion approach would sufficiently protect human health and the environment. EPA gave considerable weight to actions that would minimize mercury emissions to the environment while encouraging the collection and environmentally-sound management of spent lamps. Based upon commenter input and additional information collected and reviewed by the Agency since the publication of the proposed rule, EPA decided to adopt the proposed universal waste approach for controlling potential risks from the management of spent hazardous waste lamps.

The Agency believes that the universal waste rule will encourage participation in the Green Lights Program because the universal waste standards are less stringent and less costly than full Subtitle C management standards. With reduced management costs, today's final rule should encourage additional participation in energy-efficient lighting programs and increase recycling of spent lamps.

DCN SCSP-00032

COMMENTS Oklahoma Gas and Electric

SUBJECT UNWAS2

COMMENT D INCANDESCENT LIGHTING WASTE Incandescent lighting waste is a prime example of a waste generated in small volumes by nearly every entity that has benefit of electric service. A special collection system for this waste stream will encourage recycling of the metal parts that may otherwise cause this waste stream to

be hazardous. Consolidation will allow larger quantities of metal pieces to be accumulated and facilitate recycling.

RESPONSE

Based upon commenter input and additional information collected and reviewed by the Agency since the publication of the proposed rule, EPA decided to adopt the proposed universal waste approach for controlling potential risks from the management of spent hazardous waste lamps. Today's final rule adds hazardous waste lamps to the universal waste regulations under 40 CFR Part 273. The Agency is clarifying that all waste lamps exhibiting a hazardous waste characteristic fit the definition of hazardous waste lamps. Examples of common hazardous waste lamps include, but are not limited to, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps. Spent lamps that do not exhibit any hazardous waste characteristic are not subject to Subtitle C regulation or universal waste management regulations. The universal waste rule provides a reduced, or streamlined set of requirements (i.e., universal waste rule is less stringent than Subtitle C management standards).

Incandescent lamps would be considered to fall under the definition of lamps in today's rule, however it appears that most of these lamps are generated by households or small facilities. Today's final rule does not affect the status of household hazardous waste (as CFR 261.4 (b)) or conditionally exempt small quantity generator (CESQG) waste (40 CFR 261.5). Nor did the Agency limit the universal waste system to recycling of the waste. Universal waste handlers have several options with regard to waste management. However, the ability to access large quantities of universal waste from central collection centers may encourage the development of safe and effective methods to recycle hazardous waste lamps.

DCN SCSP-00034

COMMENTS Dept. of the Army (AEHA)

SUBJECT UNWAS2

COMMENT Enclosure 3c describes the hazardous waste characteristics of incandescent lamps. [See original comment for enclosures.] They should also be added to the "universal waste" due to their characterization as hazardous waste due to lead used in solder.

RESPONSE

Based upon commenter input and additional information collected and reviewed by the Agency since the publication of the proposed rule, EPA decided to adopt the proposed universal waste approach for controlling potential risks from the management of spent hazardous waste lamps. The Agency is clarifying that all waste lamps exhibiting a hazardous waste characteristic for mercury or any other hazardous constituent fit the definition of hazardous waste lamps. Spent lamps that do not exhibit any hazardous waste characteristic are not subject to Subtitle C regulation or universal waste management regulations. Today's final rule adds hazardous waste lamps to the universal waste regulations under 40 CFR Part 273. The universal waste rule provides a reduced, or streamlined set of requirements (i.e., universal waste rule is less stringent than Subtitle C management standards).

DCN SCSP-00077

COMMENTER U.S. Department of Energy

SUBJECT UNWAS2

COMMENT Incandescent lamps are not listed in Subpart D of 40 CFR Part 261. Examples of incandescent lamps include standard light bulbs; vehicle dome lights, headlights, and tail lights; safety exit lights; and other types of emergency lights. Typically, all incandescent lamps are constructed of lead soldered bases (95 percent lead in solder) and flare glass (20 percent lead in glass). Incandescent lamps generally fail the toxicity characteristic test for lead by the TCLP method. This determination is based on TCLP data and information received from lighting manufacturers. Incandescent lamps generally meet the proposed criteria of 40 CFR 273.2(a)(1) (i.e., that the candidate waste stream exhibits one or more of the characteristics identified in 40 CFR Part 261).

RESPONSE

Based upon commenter input and additional information collected and reviewed by the Agency since the publication of the proposed rule, EPA decided to adopt the proposed universal waste approach for controlling potential risks from the management of spent hazardous waste lamps. The Agency is clarifying that all waste lamps exhibiting a hazardous waste characteristic for mercury or any other hazardous constituent fit the definition of hazardous waste lamps. Spent lamps that do not exhibit any hazardous waste characteristic are not subject to Subtitle C regulation or universal waste management regulations. Today's final rule adds hazardous waste lamps to the universal waste regulations under 40 CFR Part 273. The universal waste rule provides a reduced, or streamlined set of requirements (i.e., universal waste rule is less stringent than Subtitle C management standards). Incandescent lamps would be considered to fall under the category of hazardous waste lamps. However, it appears most of these lamps are generated by households or conditionally exempt small quantity generators which are already exempt or excluded from RCRA Subtitle C.

DCN FLEP-00078

COMMENTER Tennessee Valley Authority

SUBJECT UNWAS2

COMMENT Incandescent lamps - We believe that once the data is available it will support the conditional exemption of incandescent lamps. We understand that EPA intends to regulate incandescent lamps under the universal waste rule until data can be collected to warrant exclusion from hazardous waste regulation. We encourage EPA to move quickly to collect the data needed to make a final regulatory determination for incandescent lamps.

RESPONSE

The Agency does not believe that its proposed conditional exclusion approach would sufficiently protect human health and the environment. EPA gave considerable weight to actions that would minimize mercury emissions to the environment while encouraging the collection and environmentally-sound management of spent lamps. Based upon commenter input and additional information collected and reviewed by the Agency since the publication of the proposed rule, EPA decided to adopt the proposed universal waste approach for controlling potential risks from the management of spent hazardous waste lamps. Today's final rule adds hazardous waste lamps to the universal waste regulations under 40 CFR Part 273. The Agency is clarifying that all waste lamps exhibiting a hazardous waste characteristic for mercury or any other hazardous constituent fit the definition of hazardous waste lamps. Examples of common hazardous waste lamps include, but are not limited to, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps. Spent lamps that do not exhibit any hazardous waste characteristic are not subject to Subtitle C regulation or universal waste management regulations. The universal waste rule provides a reduced, or streamlined set of requirements (i.e., universal waste rule is less stringent than Subtitle C management standards). Incandescent lamps would be considered to fall under the category of hazardous waste lamps. However, it appears most of these lamps are generated by households or conditionally exempt small quantity generators which are already exempt from RCRA Subtitle C.

DCN SCSP-00086

COMMENTS Northeast Utilities

SUBJECT UNWAS2

COMMENT Further, NUSCO notes that fluorescent lamps are not the only lighting wastes that may test toxic under the TCLP. Testing data from other utilities and lighting manufacturers suggests that incandescent, mercury vapor, and sodium vapor lamps may be toxic. The lead caps in these bulbs, which is the principal reason they are hazardous, may be recycled, if the barriers to management are removed. Accordingly, NUSCO urges the agency to grant relief for these lamps as well, either as universal wastes, or in the fluorescent lamp rule.

RESPONSE

Based upon commenter input and additional information collected and reviewed by the Agency since the publication of the proposed rule, EPA decided to adopt the proposed universal waste approach for controlling potential risks from the management of spent hazardous waste lamps. Today's final rule adds hazardous waste lamps to the universal waste regulations under 40 CFR Part 273. The Agency is clarifying that all waste lamps exhibiting a hazardous waste characteristic for mercury or any other hazardous constituent fit the definition of hazardous waste lamps. Examples of common hazardous waste lamps include, but are not limited to, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps. Spent lamps that do not exhibit any hazardous waste characteristic are not subject to Subtitle C regulation or universal waste management regulations. The universal waste rule provides a

reduced, or streamlined set of requirements (i.e., universal waste rule is less stringent than Subtitle C management standards).

DCN FLEP-00136

COMMENTER Wisconsin Dept. of Natural Resources

SUBJECT UNWAS2

COMMENT 2.P. 38296, ' IV. B. 2, column one, paragraph 3: The Agency requests comment on whether various types of spent lamps (e.g., incandescent, neon), other than mercury-containing lamps, typically fail the TC test (or exhibit other characteristics) and would be hazardous waste under the current RCRA Subtitle C toxicity characteristic (40 CFR 261.24. ... The Agency requests comment on this approach and on whether, how frequently, and for what TC constituents various lamp types may fail the toxicity characteristic. The WDNR encourages the USEPA to include all types of lighting wastes that may fail the TCLP in the proposed Universal Wastes Rule. The WDNR has not generated independent TCLP analyses of various lighting wastes but our review of the USEPA's testing data indicates that incandescent light bulbs will consistently and significantly fail the TCLP for lead. Additionally, other lighting wastes, such as neon tubes, can and do fail the TCLP and should be included in the proposed rule. For example, we have heard from neon lighting manufacturers that the glass used for neon signs is 20% or more lead, and that it fails the TCLP. Also, mercury is used in neon lighting for the same purposes as in a fluorescent lamp. Both of these materials - mercury and leaded glass - can be readily recycled, particularly if a less burdensome regulatory framework exists. This is a concern in Wisconsin, because we are aware that the neon sign manufacturing industry, aside from being scattered as large firms in southeastern Wisconsin, also is concentrated in one small community of artisans in northern Wisconsin, thus potentially impacting the local landfill. Since these types of lighting wastes appear to frequently fail the TCLP, and therefore we regulated as hazardous waste, we encourage USEPA to include these wastes in the Universal Waste Rule. Inclusions under this proposed rule would encourage the recycling of these wastes, and would allow the recycling to occur with less regulate)" control than is the case if these types of lighting wastes are fully regulated under existing hazardous waste rules.

RESPONSE

The Agency agrees with the commenter and based upon commenter input and additional information collected and reviewed by the Agency since the publication of the proposed rule, EPA decided to adopt the proposed universal waste approach for controlling potential risks from the management of spent hazardous waste lamps. Today's final rule adds hazardous waste lamps to the universal waste regulations under 40 CFR Part 273. The Agency is clarifying that all waste lamps exhibiting a hazardous waste characteristic for mercury or any other hazardous constituent fit the definition of hazardous waste lamps. Examples of common hazardous waste lamps include, but are not limited to, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps. Spent lamps that do not exhibit any hazardous waste characteristic are not subject to Subtitle C regulation or universal waste management regulations. The universal waste rule provides a reduced, or streamlined set of requirements (i.e., universal waste rule is less stringent than Subtitle C management standards).

DCN SCSP-00137

COMMENTS Utility Solid Waste Activities Group

SUBJECT UNWAS2

COMMENT Moreover, other types of lighting wastes, including incandescent lamps and sodium vapor lamps, can also potentially exhibit the toxicity characteristic because of the presence of lead solder or other hazardous constituents. These materials are classic "universal wastes" in that they are generated at an extremely large number of sites and by all segments of the regulated community, including households. While the amount generated at each site is generally small, in aggregate they represent a substantial waste volume. As the Agency is well aware, inclusion of any lighting wastes within the existing Subtitle C system creates enormous practical problems for consolidation and recycling and has greatly discouraged the participation of many companies in EPA's "Green Lights" program, as well as other utility-subsidized demand side management programs. (See attached letter from USWAG to Sylvia Lawrence, Director of EPA's Office of Solid Waste.) [See hard copy of Comment SCSP-00137 for Attachments]. Therefore, even if EPA exempts fluorescent lamps from Subtitle C regulation, it should include all other lighting wastes within the special collection system.

RESPONSE

Based upon commenter input and additional information collected and reviewed by the Agency since the publication of the proposed rule, EPA decided to adopt the proposed universal waste approach for controlling potential risks from the management of spent hazardous waste lamps. The Agency does not believe that the proposed conditional exclusion approach would sufficiently protect human health and the environment. Today's final rule adds hazardous waste lamps to the universal waste regulations under 40 CFR Part 273. The Agency is clarifying that all waste lamps

exhibiting a hazardous waste characteristic for mercury or any other hazardous constituent fit the definition of hazardous waste lamps. Examples of common hazardous waste lamps include, but are not limited to, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps. Spent lamps that do not exhibit any hazardous waste characteristic are not subject to Subtitle C regulation or universal waste management regulations. The universal waste rule provides a reduced, or streamlined set of requirements (i.e., universal waste rule is less stringent than Subtitle C management standards).

The Agency believes that the universal waste rule will encourage participation in the Green Lights Program because the universal waste standards are less stringent and less costly than full Subtitle C management standards. With reduced management costs, today's final rule should encourage additional participation in energy-efficient lighting programs and increase recycling of spent lamps

DCN SCSP-00146

COMMENTS Advanced Environmental Recycling Corp.

SUBJECT UNWAS2

COMMENTS ADDITIONAL WASTES TO BE INCLUDED The proposed rule has included batteries and pesticides as part of the Universal Waste system. Although these materials apply, they are not sufficient to make the program a success. This is based on the premise that other commonly landfilled or treated items are recyclable. The USEPA should expand the material list to include the following items.

- *paint, both latex and enamel
- *inks, dyes, and other Pigment-related products
- *ethylene glycol and other Antifreeze-related products
- *mercury-containing devices, Including thermometers, barometers, manometers, mercury switches, etc
- *fluorescent lamps and other mercury-containing lighting devices
- *incandescent lamps at other non mercury-containing lighting devices
- *laboratory chemicals

The majority of AERC's comments are directed to including mercury lighting devices and other mercury-containing devices to the list of Universal Waste. This is based on an overwhelming response from our customers, state regulatory agencies, and environmental groups who have detailed the extent of mercury contamination throughout the country.

RESPONSE

Based upon commenter input and additional information collected and reviewed by the Agency since the publication of the proposed rule, EPA decided to adopt the proposed universal waste approach for controlling potential risks from the management of spent hazardous waste lamps. Today's final rule adds hazardous waste lamps to the universal waste regulations under 40 CFR Part 273. The Agency is clarifying that all waste lamps exhibiting a hazardous waste characteristic for mercury or any other hazardous constituent fit the definition of hazardous waste lamps. Examples of common hazardous waste lamps include, but are not limited to, fluorescent,

high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps. Spent lamps that do not exhibit any hazardous waste characteristic are not subject to Subtitle C regulation or universal waste management regulations. The universal waste rule provides a reduced, or streamlined set of requirements (i.e., universal waste rule is less stringent than Subtitle C management standards). The universal waste system does not limit waste management options to recycling. However, the ability to access large quantities of universal wastes from central collection centers (large quantity universal waste handlers) may encourage increased safe and effective recycling

The Agency thanks the commenter for the list of additional wastes that it suggests should be included under the universal waste rule and notes that currently, mercury thermostats are included in the universal waste program under 40 CFR Part 273.4. Many States have already adopted or are considering adopting universal waste standards for spent lamps. Since this rule is not promulgated pursuant to HSWA it is applicable on the effective date only in States that do not have final RCRA authorization. Authorized states that wish to adopt this rule will have to seek authorization for the adoption of spent lamps to their universal waste programs. States are not required to adopt less stringent regulations, and therefore, need not adopt the universal waste regulations for spent lamps. However, EPA strongly encourages them to do so, not only to achieve the most benefits of the universal waste program but also to reduce the complexity of interstate transportation of these universal wastes. It should be noted that states with authorized universal waste programs have petition processes established to adopt other wastes that fit the universal waste criteria.

DCN FLEP-00156

COMMENTS National Electrical Manufacturers Assn.

SUBJECT UNWAS2

COMMENT B. UNIVERSAL WASTE FOR OTHER LAMP TYPES NEMA

recommends that EPA defer consideration of any regulatory action on non-mercury-containing lamps, particularly including such lamps in the Universal Waste system. Universal Waste is a poor choice of regulatory regimes for managing any fragile waste, including lamps, for the reasons discussed in the previous section. There is also very little data available on the performance of various other lamp types under the TCLP, so the size and scope of the problem, if any exists, is essentially unknown. EPA has not performed any risk analysis of these other lamps under various management scenarios nor evaluated source reduction opportunities as an alternative to regulation. NEMA offers to work with EPA in evaluating the environmental risks of non-mercury-containing lamps whenever EPA time and resources become available.

RESPONSE

The Agency thanks the commenter for the offer to work with EPA in evaluating the environmental risks of non-mercury-containing lamps. Based upon commenter input and additional information collected and reviewed by the Agency since the publication of the proposed rule, EPA decided to adopt the proposed universal waste approach for controlling potential risks from the management of spent hazardous waste lamps. Today's final rule adds hazardous waste lamps to the universal waste regulations under 40 CFR Part 273. The Agency is clarifying that all waste lamps exhibiting a hazardous waste characteristic for mercury or any other hazardous constituent fit the definition of hazardous waste lamps. Examples of common hazardous waste lamps include, but are not limited to, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps. Spent lamps that do not exhibit any hazardous waste characteristic are not subject to Subtitle C regulation or universal waste management regulations. The universal waste rule provides a reduced, or streamlined set of requirements (i.e., universal waste rule is less stringent than Subtitle C management standards).

The commenter suggests that hazardous waste lamps are too fragile to be included in the universal waste rule management system. The final rule requires universal waste handlers to manage universal waste lamps in a way that prevents releases of the lamps or the components of the lamps to the environment. Spent lamps must be packed to minimize breakage and packaging materials must be designed to contain potential releases due to breakage during transport. Universal waste lamps must be stored in containers or packages that remain closed, are structurally sound, adequate to prevent breakage, compatible with contents of lamps, and lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions. Examples of acceptable packaging could include placing the lamps evenly spaced in double or triple-ply cardboard containers with closed lids. Handlers also must contain any universal waste lamps that show evidence of breakage, leakage, or damage that could cause the release of mercury or other hazardous waste to the environment. An example of such containment could include placing unintentionally broken lamps in closed wax fiberboard drums.

The Agency points out that in addition to these container and packaging provisions, universal waste handlers, including handlers of universal waste lamps, must comply with the provisions of 40 CFR ' ' 273.17 and 273.37 for responding to releases of universal waste. Handlers of universal waste must immediately contain all releases of universal waste and any residues from universal wastes. In addition, universal waste handlers must determine whether any material resulting from a release is a hazardous waste and, if so, must manage the hazardous waste in compliance with all applicable provisions of 40 CFR Parts 260 through 268, as well as all other applicable statutory provisions.

Today's rule retains requirements for hazardous waste lamps to ultimately be managed in accordance with RCRA Subtitle C hazardous waste management requirements. This may provide incentives for lamp manufacturers to pursue additional source reduction efforts to reduce or eliminate the amount of mercury used in the manufacture of fluorescent tubes. If source reduction

is pursued aggressively by the fluorescent lamp manufacturing industry, the overall contribution of mercury from fluorescent lamps to municipal solid waste should decrease over time.

DCN FLEP- 00175

COMMENTS AT&T

SUBJECT UNWAS2

COMMENT The Agency requests comment on the regulatory status and management of non- mercury-containing lamps, such as, incandescent and neon. AT&T recommends that, if any of these spent lamps are found to fail the toxicity characteristic (TC), they should be treated no differently from any other hazardous waste and the Agency should pursue public comment and opinion concerning the most reasonable management plan based on the anticipated to human health and the environment.

RESPONSE

Based upon commenter input and additional information collected and reviewed by the Agency since the publication of the proposed rule, EPA decided to adopt the proposed universal waste approach for controlling potential risks from the management of spent hazardous waste lamps. Today's final rule adds hazardous waste lamps to the universal waste regulations under 40 CFR Part 273. The Agency is clarifying that all waste lamps exhibiting a hazardous waste characteristic for mercury or any other hazardous constituent fit the definition of hazardous waste lamps. Examples of common hazardous waste lamps include, but are not limited to, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps. Spent lamps that do not exhibit any hazardous waste characteristic are not subject to Subtitle C regulation or universal waste management regulations. The universal waste rule provides a reduced, or streamlined set of requirements (i.e., universal waste rule is less stringent than Subtitle C management standards). By adding all hazardous waste lamps to the universal waste rule, EPA ensures that all hazardous lamps are managed consistently.

DCN FLEP-00176

COMMENTS Coalition of Lamp Recyclers

SUBJECT UNWAS2

COMMENT EPA requested information on the management and recycling other types of lamps (e.g., incandescent, neon) and whether various other types of spent lamps typically fail the TCLP test (or exhibit other characteristics). Less information and data is available on other types of lamps. What data is known follows: neon lamps have substantially more mercury since it is injected in the tube using less precise equipment. Broken neon tubes in a drum are heavily contaminated with liquid mercury, which often is visible to the naked eye. The lamps also fail TCLP for lead. The components can be separated, the mercury recovered and the

residuals recycled. Incandescent fail the TCLP for lead from five (5) to 140 times. The lead is located in the contact point.

This point (lead) can be separated and the glass recycled.

RESPONSE

The Agency appreciates the commenter's submission of information on the toxicity of neon and incandescent lamps. Based upon commenter input and additional information collected and reviewed by the Agency since the publication of the proposed rule, EPA decided to adopt the proposed universal waste approach for controlling potential risks from the management of spent hazardous waste lamps. Today's final rule adds hazardous waste lamps to the universal waste regulations under 40 CFR Part 273. The Agency is clarifying that all waste lamps exhibiting a hazardous waste characteristic for mercury or any other hazardous constituent fit the definition of hazardous waste lamps. Examples of common hazardous waste lamps include, but are not limited to, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps. Spent lamps that do not exhibit any hazardous waste characteristic are not subject to Subtitle C regulation or universal waste management regulations. The universal waste rule provides a reduced, or streamlined set of requirements (i.e., universal waste rule is less stringent than Subtitle C management standards).

DCN SCSP-00200

COMMENTS Wisconsin Dept. of Natural Resources

SUBJECT UNWAS2

COMMENT Expansion of Universal Waste List. EPA should consider additional wastes for inclusion under the proposed universal waste rule. These wastes could include, but are not limited to, lead-acid batteries, mercury thermometers, mercury switches and thermostats, antifreeze, fluorescent and high-intensity discharge lamps, incandescent light bulbs and non-banned pesticides.

Lastly, risk should be a consideration in the management of a particular waste. "High risk" wastes, such as pesticides, should be held to higher management standards than "low risk" wastes, such as consumer (dry) batteries and incandescent light bulbs.

Risk is presently considered in the designation of acute hazardous wastes and a similar approach could be used in the universal waste rule.

RESPONSE

The Agency appreciates the commenters suggestions for additional wastes to be added to the universal waste list and notes that lead-acid batteries are currently managed under either the universal waste program at 40 CFR 273.2 or other recycling provisions at 40 CFR Part 266 Subpart G. Based upon commenter input and additional information collected and reviewed by the Agency since the publication of the proposed rule, EPA decided to adopt the proposed universal waste approach for controlling potential risks from the management of spent hazardous

waste lamps. Today's final rule adds hazardous waste lamps to the universal waste regulations under 40 CFR Part 273. The Agency is clarifying that all waste lamps exhibiting a hazardous waste characteristic for mercury or any other hazardous constituent fit the definition of hazardous waste lamps. Examples of common hazardous waste lamps include, but are not limited to, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps. Spent lamps that do not exhibit any hazardous waste characteristic are not subject to Subtitle C regulation or universal waste management regulations. The universal waste rule provides a reduced, or streamlined set of requirements (i.e., universal waste rule is less stringent than Subtitle C management standards).

The commenter also stated that the universal waste rules should be divided into different standards for high-risk versus low-risk wastes. The universal waste regulations are designed for wastes that are high in volume and pose a relatively low risk to human health and the environment, and that are generated by a wide variety of generators. To the extent that different universal wastes pose a specific hazard to human health and the environment, the Agency has promulgated specific waste management requirements under 40 CFR 273.13 for each type of waste within the scope of the rule.

In response to the universal waste rule, a number of commenters suggested additional wastes that they believed should be added to the universal waste regulations. Although many of the wastes suggested may be appropriate candidates for the universal waste system in the future, the Agency decided to include only three wastes (hazardous waste batteries, thermostats, and certain unused pesticides) in the universal waste rule finalized on May 11, 1995 (60 FR 254920). Today's rule adds hazardous waste lamps to the universal waste regulations. States authorized for the universal waste regulations may add additional types of waste, such as antifreeze, to their individual state universal waste program through their authorized petition process.

DCN SCSP-00201

COMMENTS Northeast Utilities

SUBJECT UNWAS2

COMMENT III. EPA Should Grant Relief For Other Types of Lamps

Fluorescent lamps are not the only lighting wastes that may test toxic under the TCLP. Evidence from other utilities and lighting manufacturers suggests that incandescent, mercury vapor, and sodium vapor lamps may be toxic. Accordingly, NUSCO urges the agency to grant similar relief to these lamps wastes as well.

IV. Conclusion For the reasons stated above, NUSCO urges EPA to grant relief from full RCRA regulation for the aforementioned lamp wastes.

RESPONSE

The Agency agrees with the commenter that the definition of lamps in the final rule should be expanded to include other than mercury-containing lamps. Based upon commenter input and

additional information collected and reviewed by the Agency since the publication of the proposed rule, EPA decided to adopt the proposed universal waste approach for controlling potential risks from the management of spent hazardous waste lamps. Today's final rule adds hazardous waste lamps to the universal waste regulations under 40 CFR Part 273. The Agency is clarifying that all waste lamps exhibiting a hazardous waste characteristic for mercury or any other hazardous constituent fit the definition of hazardous waste lamps. Examples of common hazardous waste lamps include, but are not limited to, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps. Spent lamps that do not exhibit any hazardous waste characteristic are not subject to Subtitle C regulation or universal waste management regulations. The universal waste rule provides a reduced, or streamlined set of requirements (i.e., universal waste rule is less stringent than Subtitle C management standards).

DCN SCSP-00211

COMMENTS Minnesota Pollution Control Agency

SUBJECT UNWAS2

COMMENT 2. Hazardous waste lamps other than fluorescent. Specifically, high-intensity discharge, neon, and incandescent lamps should be included under the universal waste framework. These lamps are hazardous for mercury or lead. These lamps are sporadically generated by a diverse population of generators, who historically have mismanaged the lamps by disposal in the solid waste stream. The rationale for adding these lamps to the "universal" waste framework is the same as stated above for mercury-bearing fluorescent lamps. Including them under the "universal" waste framework would significantly aid in the establishment of easily accessible and economical collection systems.

RESPONSE

The Agency agrees with the commenter. Based upon commenter input and additional information collected and reviewed by the Agency since the publication of the proposed rule, EPA decided to adopt the proposed universal waste approach for controlling potential risks from the management of spent hazardous waste lamps. Today's final rule adds hazardous waste lamps to the universal waste regulations under 40 CFR Part 273. The Agency is clarifying that all waste lamps exhibiting a hazardous waste characteristic for mercury or any other hazardous constituent fit the definition of hazardous waste lamps. Examples of common hazardous waste lamps include, but are not limited to, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps. Spent lamps that do not exhibit any hazardous waste characteristic are not subject to Subtitle C regulation or universal waste management regulations. The universal waste rule provides a reduced, or streamlined set of requirements (i.e., universal waste rule is less stringent than Subtitle C management standards).

Waste lamps that are household waste remain excluded from hazardous waste regulation under 40 CFR ' 261.4(b)(1). Facilities that generate less than 100 kilograms of hazardous waste, including waste lamps, in a calendar month qualify as conditionally exempt small quantity generator (CESQGs) subject to reduced regulation under 40 CFR ' 261.5. CESQGs can choose to manage lamps under either the universal waste program or 40 CFR ' 261.5.

DCN FLEP-00227

COMMENTS Page Electric Utility

SUBJECT UNWAS2

COMMENT The universal waste option would encompass all spent lighting waste lamps including incandescent and neon, as opposed to just mercury-containing lamps.

RESPONSE

The Agency agrees with the commenter. Based upon commenter input and additional information collected and reviewed by the Agency since the publication of the proposed rule, EPA decided to adopt the proposed universal waste approach for controlling potential risks from the management of spent hazardous waste lamps. Today's final rule adds hazardous waste lamps to the universal waste regulations under 40 CFR Part 273. The Agency is clarifying that all waste lamps exhibiting a hazardous waste characteristic for mercury or any other hazardous constituent fit the definition of hazardous waste lamps. Examples of common hazardous waste lamps include, but are not limited to, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps. Spent lamps that do not exhibit any hazardous waste characteristic are not subject to Subtitle C regulation or universal waste management regulations. The universal waste rule provides a reduced, or streamlined set of requirements (i.e., universal waste rule is less stringent than Subtitle C management standards).

DCN FLEP-00239

COMMENTS National Sign Association

SUBJECT UNWAS2

COMMENT V. Specific Comments on EPA's Proposal to Include Neon Lamps in the Regulatory System Many NESAs Members create custom neon signs which are of fantastic size and complexity. The average lifespan of these signs is in excess of fifteen years (versus three years for ordinary fluorescent lamps) . EPA has also requested comments on whether EPA should treat neon and other lamps as they will treat fluorescent lamps. If EPA should decide to regulate neon and other lamps under this proposal, NESAs Members' neon signs would also be regulated. At this time there is no grounds for concluding that, if tested, NESAs Members' neon lamps would fail the TCLP and fall under EPA's regulatory jurisdiction. NESAs opposes incorporating neon lamps into this proposed regulation because there is no evidence that neon lamps

are a substantial threat to human health or the environment. Should EPA attempt to regulate these signs there will, inevitably, be handling and processing problems even worse than those described above in the discussion of fluorescent lights. NESAs believe that EPA resources may be better spent addressing issues that would have a greater impact upon human health and the environment. Should EPA determine that there is a significant factual basis for regulating neon lamps, NEIA believes that the appropriate mode of regulation is Alternative I, the Conditional Exclusion alternative. In addition to all the reasons enunciated above in favor of this alternative, NESAs wish to point out the impracticality of establishing a collection system that could successfully handle the unusually large sizes and irregular shapes of the neon lamps that NESAs Members will dispose. These lamps will have to be handled by NESAs Members and, therefore, the proposed Universal Waste System will, in effect, not apply to neon signs -- NESAs Members will have to comply with the full requirements of Subtitle C.

RESPONSE

The Agency does not believe that its proposed conditional exclusion approach would sufficiently protect human health and the environment. EPA gave considerable weight to actions that would minimize mercury emissions to the environment while encouraging the collection and environmentally-sound management of spent lamps. Based upon commenter input and additional information collected and reviewed by the Agency since the publication of the proposed rule, EPA decided to adopt the proposed universal waste approach for controlling potential risks from the management of spent hazardous waste lamps. Today's final rule adds hazardous waste lamps to the universal waste regulations under 40 CFR Part 273. The Agency is clarifying that all waste lamps exhibiting a hazardous waste characteristic for mercury or any other hazardous constituent fit the definition of hazardous waste lamps. Examples of common hazardous waste lamps include, but are not limited to, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps. Spent lamps that do not exhibit a hazardous waste characteristic are not subject to Subtitle C or universal waste regulations. The universal waste rule provides a reduced, or streamlined set of requirements (i.e., universal waste rule is less stringent than Subtitle C management standards).

NESAs members who generate unusually large size and irregularly shaped neon lamps may qualify for exemption under the household waste provision (40 CFR 261.4 (b)(1)) or as conditionally exempt small quantity generators (CESQGs) under 40 CFR 261.5. CESQGs are facilities that generate less than 100 kilograms of hazardous waste in a calendar month. Alternatively, they may choose to handle their hazardous waste lamps under the universal waste rule, 40 CFR Part 273.

DCN SCSP-L0003

COMMENTS Coors Brewing Company

SUBJECT UNWAS2

COMMENT Coors believes that the environment would be best served if the definition of "universal wastes" was expanded beyond batteries and pesticides to include several additional wastes. We suggest light bulbs, (all kinds including fluorescent), used anti-freeze, mercury-containing devices, waste non-empty aerosol cans, waste paint residues (any type of coating), waste applicator tools and rags associated with coating operations and waste janitorial chemicals should also be included in the universal waste category. Coors strongly suggests that fluorescent light bulbs be included in the system. Coors has tested different types of light bulbs and has discovered that when disposed of a number of specific brands are hazardous waste based on TCLP analysis which documents for example that concentrations exceed the regulated mercury limit of 0.2 mg/l. Since many incandescent and fluorescent light bulbs are hazardous wastes, they meet the criteria and should be included in the special collection system standard rule.

RESPONSE

The Agency agrees with the commenter regarding lamps. Based upon commenter input and additional information collected and reviewed by the Agency since the publication of the proposed rule, EPA decided to adopt the proposed universal waste approach for controlling potential risks from the management of spent hazardous waste lamps. Today's final rule adds hazardous waste lamps to the universal waste regulations under 40 CFR Part 273. The Agency is clarifying that all waste lamps exhibiting a hazardous waste characteristic for mercury or any other hazardous constituent fit the definition of hazardous waste lamps. Examples of common hazardous waste lamps include, but are not limited to, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps. The universal waste rule provides a reduced, or streamlined set of requirements (i.e., universal waste rule is less stringent than Subtitle C management standards).

A number of commenters suggested additional wastes that they believed should be added to the universal waste regulations. Although many of the wastes suggested may be appropriate candidates for the universal waste system in the future, the Agency decided to include only three wastes (hazardous waste batteries, thermostats, and certain unused pesticides) in the universal waste rule finalized on May 11, 1995 (60 FR 254920). Today's rule adds hazardous waste lamps to the universal waste regulations. States authorized for the universal waste regulations may add additional types of waste, such as those suggested by the commenter, to their individual state universal waste programs through their authorized petition process.

DCN SCSP-L0007

COMMENTS Large Public Power Council

SUBJECT UNWAS2

COMMENT In either case, LPPC strongly recommends that non-fluorescent lighting wastes and other types of wastes generated by energy efficiency and conservation programs be included in any special regulatory program proposed for fluorescent lighting wastes.

RESPONSE

The Agency agrees with the commenter. Based upon commenter input and additional information collected and reviewed by the Agency since the publication of the proposed rule, EPA decided to adopt the proposed universal waste approach for controlling potential risks from the management of spent hazardous waste lamps. Today's final rule adds hazardous waste lamps to the universal waste regulations under 40 CFR Part 273. The Agency is clarifying that all waste lamps exhibiting a hazardous waste characteristic for mercury or any other hazardous constituents fit the definition of hazardous waste lamps. Examples of common hazardous waste lamps include, but are not limited to, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps. The universal waste rule provides a reduced, or streamlined set of requirements (i.e., universal waste rule is less stringent than Subtitle C management standards).

DCN FLEP-00010

COMMENTS Wisconsin Public Service Corporation

SUBJECT UNWAS2

COMMENT Lastly, WPSC asks that the EPA include all lighting waste in the exemption from regulation. Mercury containing lights have received most of the attention, but it is known that incandescent light bulbs will fail a TCLP because of the drop of-lead solder they contain at the base. Incandescent lighting wastes are not as widely used in industry as fluorescent lights. However, if they are not included in the exemption, every commercial establishment, non-profit organization, school, and government building will be a hazardous waste generator by replacing a light bulb. In states which do not allow the disposal of hazardous waste in municipal landfills, such as Wisconsin, the generators are forced into a bizarre situation to dispose of a light bulb.

RESPONSE

Based upon commenter input and additional information collected and reviewed by the Agency since the publication of the proposed rule, EPA decided to adopt the proposed universal waste approach for controlling potential risks from the management of spent hazardous waste lamps. Today's final rule adds hazardous waste lamps to the universal waste regulations under 40 CFR Part 273. The Agency is clarifying that all waste lamps exhibiting a hazardous waste characteristic for mercury or any other hazardous constituent fit the definition of hazardous waste lamps. Examples of common hazardous waste lamps include, but are not limited to, fluorescent, high

intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps. The universal waste rule provides a reduced, or streamlined set of requirements (i.e., universal waste rule is less stringent than Subtitle C management standards).

It appears that most incandescent lamps are generated by households or small facilities. Waste lamps that are household waste remain excluded from hazardous waste regulation under 40 CFR ' 261.4(b)(1). Facilities that generate less than 100 kilograms of hazardous waste, including waste lamps, in a calendar month qualify as conditionally exempt small quantity generators (CESQGs) subject to reduced regulation under 40 CFR ' 261.5 or CESQGs can choose to manage their lamps under the universal waste rule of 40 CFR Part 273. Spent lamps that do not exhibit any hazardous waste characteristic are not subject to Subtitle C regulation.