

US EPA ARCHIVE DOCUMENT

DCN FLEP-00019

COMMENTS United States Air Force

SUBJECT REGLAN

COMMENT 4. Recommend the word "electric" be substituted for the word "mercury-containing" in the first sentence of proposed regulation 40 CFR 261.4(b)(16). This change seems appropriate since any type of waste lamp that may fail the toxicity characteristics for other TC metals besides mercury under Option 1 should be afforded the same conditional exemption as mercury-containing lamps.

RESPONSE

The Agency is not finalizing the conditional exclusion option for the management of hazardous waste lamps. Today's rule adds waste lamps exhibiting a hazardous waste characteristic, including the toxicity characteristic for mercury and other constituents to the Federal universal waste rule. In the proposed mercury-containing lamps rule, the Agency provided definitions for electric lamp and mercury-containing lamp. In response to comments received on the proposed definitions, and to reduce potential confusion regarding the scope of the final rule, in today's final rule the Agency is finalizing a single definition of lamp or universal waste lamp. In addition, in the applicability section of today's rule, the Agency is clarifying that all hazardous waste lamps fall within the scope of the universal waste rule.

DCN FLEP-00040

COMMENTS Eli Lilly and Company

SUBJECT REGLAN

COMMENT VI. Universal Waste System: Proposed regulatory language modifications. 273.31(a)(1): The proposed language indicates that a used lamp becomes a waste when it is removed from its fixture. Lilly disagrees with this proposal as it would not allow a lamp that is still operational to be removed during a lighting replacement project and subsequently reused by a someone else, such as a charity or a school. Lilly suggests that a used lamp only become waste when it is removed from its fixture 'with the intent that it be thrown away'. 273.31(b)(1) and (2): It is Lilly's experience that due to both the fragile nature of the lamps and the circumstances surrounding a lighting replacement job, it is not uncommon to find one or two broken lamps in a box of unbroken lamps. While Lilly supports the need to prevent broken lamps from being stored in open containers (such as dumpsters), we also want to emphasize that the lamp manufacturer's box has proven to thus far be the best transportation and containment package for lamps. Subjecting employees to increased exposure by requiring them to repackage

broken lamps is of highly questionable value to both their health and the environment. 273.31(d)(1) and (c)(1): "Consolidation point" has not been defined. If a generator is going to be shipping their mercury-containing waste lamps to a 'consolidation point', and will presumably continue to be responsible for that waste up to and through final recycling and disposal, Lilly believes that the operational requirements for such a facility need to be set out.

#### RESPONSE

Today's rule adds hazardous waste lamps to the federal universal waste rule (40 CFR Part 273). Today's rule specifies that a used lamp becomes a waste on the date that it is discarded. In addition, an unused lamp becomes a waste on the date a handler decides to discard it.

Hazardous wastes regulated as universal waste are subject to streamlined waste management standards. These standards require that universal waste handlers manage universal waste lamps in a way that prevents releases of the lamps or component of the lamps to the environment. Hazardous waste lamps must be stored in containers and/or packaging that remain closed, are structurally sound, are adequate to prevent breakage, are compatible with contents of lamps, and that lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions. 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. If a release occurs, 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 272.

The standards for entities that manage hazardous waste lamps as finalized today are consistent with the existing universal waste regulations for batteries, pesticides, and mercury thermostats. The existing universal waste regulations do not include requirements specifically for consolidation points, as these types of facilities fall under the definition of universal waste handler. Under 40 CFR 273.9 (formerly 273.6) of the final rule, a universal waste handler is defined as a generator of universal waste or the owner or operator of a facility, including all contiguous property, that receives universal waste, and sends universal waste to another universal waste handler, to a destination facility, or to a foreign destination. A universal waste handler does not treat, dispose, or recycle universal waste, and does not transport universal wastes. Universal waste handlers are divided into **A**large quantity handlers of universal waste<sup>®</sup> (those who handle greater than 5,000 kilograms of universal waste at one time) and **B**small quantity handlers of universal waste<sup>®</sup> (those who handle 5,000 kilograms or less at one time).

DCN FLEP- 00041  
COMMENTER John A. Williams

SUBJECT REGLAN

COMMENT Section 273.31 (a)(1) -The date a used spent lamp becomes a waste is the date the generator permanently removes it from its fixture service. "Used does not imply spent. If a lamp can be reused in another fixture why call it a waste?" Section 273.31(c)(2)(I) -Placing the lamps in a container and marking or labeling the container with the earliest date that any date that the last lamp was added in to the container became a waste. (ii) Marking or labeling an individual lamp with the date that it became a waste; (iii) Maintaining an inventory system that identifies the date each lamp in storage became a waste; (iv) Maintaining an inventory system that identifies the earliest date that any lamp in a group of lamps became a waste: or (v) Placing the lamps in a specific storage area and identifying the earliest date that any container of lamps in the storage area became a waste. "The generator requirements for mercury-containing lamps should not be more strict than 40 CFR Part 262-Standards Applicable to Generators of Hazardous Waste." Section 273.31(d) - Notification. (1) A generator who stores more than 35,000 hazardous waste lamps at any time must have before exceeding the 35,000 lamp quantity limit, sent written notification of hazardous waste lamp storage to the Regional Administrator and received an EPA Identification Number. (2) This notification must include: (I) The generator's name and mailing address; (ii) The name and business telephone number of the person at the generator's site who should be contacted regarding the lamp storage activity; (iii) The address or physical location of the lamp storage activity; (iv) A statement indicating that the generator stores more than 35,000 hazardous waste lamps. "The generator is already being regulated by dates on the containers, so why do we want to know the volume stored on site? This notification form will be another RCRIS list to maintain. To eliminate the extra paperwork, I suggest that notifications for generators be eliminated. Furthermore, the present notification for generators of hazardous waste will cover the small quantity and large quantity generators." Section 273.31 (e)(2) - Prohibited from treating them. Generators of hazardous waste lamps may crush for volume reduction as long as the machine complies with air quality regulations for mercury and except by responding to releases as provided in paragraph (f)(2) of this section; and includes: (I) The fluorescent lamps must originate from relamping activities at the facility. (ii)

No lamps may be transported or received from off site facilities. (iii) The mercury contaminated filters must be used and replaced as directed by the manufacturer. The spent filters may be tested for toxicity characteristic leaching procedure (TCLP) for mercury (D009) or apply generator knowledge. If the TCLP for mercury exceeds the regulatory level of 0.2 ppm, the spent filters must be manifested as hazardous waste for either recycling or disposal. (iv) The crushed lamps in containers, if determined to be characteristically hazardous for mercury (D009), must comply with the following: a. Closed at all times except when adding or removing materials from the container. b. The containers must be marked or labeled as hazardous waste. c. Marked with the accumulation start date, comply with the 90 or 180 day storage time (depending on the generator's status). d. Manifested as a hazardous waste for either recycling or disposal. (v) The fluorescent lamp crusher must be operated in a manner consistent with all State and Federal rules and regulations applicable to this process; and "An EPA headquarters memo dated June 17, 1986, indicates that on-site treatment of waste in a container is permissible by the generator without obtaining a permit. I do not support crushing of fluorescent lamps by the transporter or consolidation point unless the facility has a treatment, storage or disposal (TSD) permit." Section 273.31 (f) - Lamp Management (4) Waste-tracking invoices may be used instead of manifests when shipping lamps within a State or to another State recycling facility. Include the following information on the waste-tracking invoice: (i) Date of shipment; (ii) Location and generator's name from which they were shipped ; (iii) Destination location and recycling facility name; (iv) Number of lamps in shipment. "This follows Minnesota's guidelines for shipments to lamp recycling facilities." Section 273.33(b) - Storage (1) The owner or operator of a consolidation point may store a hazardous waste container of lamps for no longer than one year from the date that the owner or operator receives it. "The consolidation point may only accept one lamp from a generator, but the lamp would be stored in a container with other lamps received. The accumulation start date should be when the last lamp is added and the container is full". Section 273.33(b)(2)(I) - Placing the lamps in a container and marking or labeling the container with the earliest date that any lamp in date that the last lamp was added to the container was received; (ii) Marking

or labeling an individual lamp with the date that it was received; (iii) Maintaining an inventory system that identifies the date each lamp in storage was received; (iv) Maintaining an inventory system that identifies the earliest date that any lamp in a group container of lamps was received; or (v) Placing the lamps in a specific storage area and identifying the earliest date that any container of lamps in the storage area was received. "The consolidation point is going to have enough paperwork without having to mark and label each individual lamp.

A container of lamps should be the smallest unit to inventory."

#### RESPONSE

The Agency thanks the commenter for submitting suggestions for regulatory language addressing the management of hazardous waste lamps as universal waste. Today's rule adds hazardous waste lamps to the federal universal waste rule (40 CFR Part 273). Hazardous wastes regulated as universal waste are subject to streamlined waste management standards under Subtitle C of RCRA.

Under the universal waste rule, large quantity handlers of universal waste are subject to the notification requirement. Handlers that accumulate more than 5,000 kg total of universal wastes at any one time are designated as a large quantity handlers of universal waste and are subject to the notification requirements of 40 CFR 273.32. The notification requirement is a one-time notification and is applicable on a site-specific basis. Large quantity handlers must notify the EPA Regional Administrator of their universal waste management activities and obtain an EPA identification number. Today's final rule maintains the current requirements for the content of the notification. Small quantity handlers of hazardous waste lamps are not required to notify EPA of spent lamp handling activities. In addition, large quantity generators of hazardous waste who have already received an EPA identification number are not required to re-notify under 40 CFR ' 273.32.

Universal waste handlers may accumulate universal waste lamps for one year. The final rule requires that universal waste handlers of hazardous waste lamps comply with one of the following to demonstrate compliance with the accumulation time limit: mark the container holding the lamp, mark the individual lamp, maintain an inventory system, place the lamps in a specific storage area marked with the earliest date identified, or use any other method which demonstrates the length of time that the lamp has been accumulated from the date the lamp becomes a waste or is received.

The final rule for hazardous waste lamps does not contain a separate category for consolidation points. At the publication of the proposed hazardous waste lamp rule, the universal waste rule was also in the proposal stage of the rulemaking process. As a result, the Agency chose to design the regulations for hazardous waste lamps in a manner that was consistent with the proposed universal waste rule. The proposed universal waste rule, and subsequently the proposed

hazardous waste lamps rule, categorized regulated persons managing universal waste into four types: generators, consolidation points, transporters, and destination facilities. When the final universal waste rule was published, the Agency modified the four categories. The transporter and destination facility categories were retained essentially as proposed. However, the persons who would have been included in the generator and consolidation point categories were merged to create two new categories of participants: small quantity handlers of universal waste (SQHUniversal wastes) and large quantity handlers of universal waste (LQHUniversal wastes). In the hazardous waste lamps final rule, the Agency has decided to remain consistent with the existing universal waste regulations and retain the four categories of participants that were finalized in the universal waste rule.

Today's rule also specifies that a used lamp becomes a waste on the date that it is discarded. In addition, an unused lamp becomes a waste on the date a handler decides to discard it.

The current universal waste rule prohibits universal waste handlers from crushing 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 for recovery, 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 allowed 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/m<sup>3</sup>.

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 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. EPA believes that this approach both ensures protection of human health and the environment while allowing for the development of state regulatory programs that include specific standards for the safe crushing of hazardous waste lamps.

DCN FLEP-00141

COMMENTS DOW Chemical Company

SUBJECT REGLAN

COMMENT This proposal speaks of periodic, group relamping on page 38290.

The inclusion of "[s]pent" in the exclusion might later be incorrectly interpreted to mean that the exclusion only would apply to lamps which had failed.

To qualify for this exclusion, a generator who ships the mercury-containing lamps must maintain in its operating records for three years from the date of shipment a certification for each shipment of mercury-containing lamps that is signed by the generator or its authorized representative and states the following: I certify, under penalty of law, that on [date], I consigned [amount] of mercury-containing lamps to [name and address of transporter] for [disposal][recycling] at [name and address of disposal or recycling facility]. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. To qualify for this exclusion, a generator who disposes of the mercury-containing lamps on-site must maintain in its operating records for three years from the date of disposal an annual certification covering each disposed of mercury-containing lamp that is signed by the generator or its authorized representative and states the following: I certify, under penalty of law, that during [year], I disposed of [amount] of mercury-containing lamps in [name or designated on-site landfill]. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



## RESPONSE

The Agency is not finalizing the conditional exclusion option for the management of hazardous waste lamps. Today's rule adds hazardous waste lamps to the federal universal waste rule (40 CFR Part 273). Although the universal waste requirements do not change any of the standards applicable to facilities that ultimately recycle, or treat and dispose of spent lamps, this approach minimizes the regulatory requirements applicable to generators, collectors, and transporters of spent lamps. The universal waste rule removes some existing barriers to managing hazardous waste lamps under the full hazardous waste system by reducing technical and paperwork requirements applicable to generators and collectors, therefore making the collection of lamps more efficient and economical. At the same time, the universal waste management standards specific to lamps, which are finalized as part of today's rulemaking, are designed to minimize the hazards posed by the collection and shipment of spent lamps (e.g., designed to reduce the potential for mercury emissions due to uncontrolled crushing and inadvertent breaking of spent lamps).

Today's rule specifies that a used lamp becomes a waste on the date that it is discarded. In addition, an unused lamp becomes a waste on the date a handler decides to discard it.

DCN FLEP-00156

COMMENTER National Electrical Manufacturers Assn.

SUBJECT REGLAN

COMMENT 261.6 Requirements for recyclable materials (a)(5)

Mercury-containing lamps that are recycled and are a hazardous waste because they exhibit a characteristic are not subject to the requirements of Parts 260 through 268 of this chapter but are regulated under Part 266 Subpart I of this chapter. Mercury recycling is defined as a process which produces 99 percent pure mercury, which is directly reused or sent to a mercury re-refiner off-site.[18] (Footnote 18: Letter from Matthew A. Straus, Chief, Waste Identification Branch, Office of Solid Waste, to Bruce J. Lawrence, President, Bethlehem Apparatus, May 1986. This letter establishes the 99 percent mercury level. See also 50 FR 634, col. 1. (January 4, 1985.)) 266 Subpart I Mercury-Containing Lamps Being Recycled 266.200 Applicability and requirements (a) The regulations of this subpart apply to persons who recycle spent mercury-containing lamps that are hazardous because they fail a characteristic, as well as to persons who generate, store, transport, collect trash, or otherwise handle such lamps destined for mercury recycling. (b) Mercury-containing lamps destined for mercury recycling must be managed in compliance with the following standards: (i) the generator must keep records for three years after the date of

shipment off-site of the number and type of lamp discards, the transporter used, the destination for the lamps, and whether the lamps are intact or crushed. (Lamp replacement purchase orders and other existing paperwork may meet this requirement.) (ii) the generator must report any relamping project over 30,000 lamps to the appropriate state agency; (iii) intact lamps must be stored in original containers or specially designed lamp containers labeled 'Spent Mercury-Containing Lamps' and must be stored on a concrete pad with protection from weather; (iv) crushed and broken lamps must be stored in closed drums or other puncture-proof containers which are labeled 'Spent Mercury-Containing Lamps' and must be stored on a concrete pad with protection from weather; (v) storage of intact lamps is limited to one year or 30,000 lamps, whichever comes first; storage of crushed lamps-is limited to one year; (vi) any crushing activities must be conducted in compliance with all OSHA workplace standards; including but not limited to the acceptable ceiling concentration of 0.1 mg/m<sup>3</sup>, the Hazard Communication Standard (29 CFR 1910.1200), the Respiratory Protection Standard (29 CFR 1910.134), and employee exposure and medical records (29 CFR 1910.20); (vii) crushers must effectively capture all freely available mercury so that they are protective of human health and the environment; (viii) records must be kept for three years after the date of crushing of the number of lamps crushed and the disposition of the mercury-contaminated filter and recovered glass and metal components other than mercury; (ix) the crushing facility must notify the appropriate state agency of the number of lamps crushed in excess of 30,000 lamps per calendar year; (x) all lamps whether crushed or intact must be transported in segregated loads in drums, cartons, or specially designed lamp containers; (xi) all shipments of lamps must be accompanied by shipping papers indicating the generator and the destination for the lamps, and; (xii) the transporter of the spent lamps must maintain for three years after pick-up of each shipment of a load of lamps, the number or volume of intact lamps or the weight of crushed lamps transported in the shipment, whether the lamps were boxed or drummed, the generator, and the receiving facility. (c) The recycling facility must keep the following records for three years: (i)the number/volume/weight of lamps recycled, (ii)the generator and transporter of each shipment, (iii)whether the lamps in each shipment arrived intact or

crushed, (iv)the annual volume of each end product recovered, (v)the customer for each shipment of end product, (vi)the length of time each batch of end product was stored, and vii)annual income received for each end product stream used as a substitute for a commercial product (d) Lamp recycling facilities must comply with the requirements of Part 264.14 through 264.18 and Part 264 Subparts C and D. (e) Lamp recycling facilities must comply with the requirements of Part 264 Subpart G. (f) Lamp recycling facilities must comply with the requirements of Part 264 Subpart H. (g) Lamp recyclers must disclose to each purchaser of reclaimed materials the mercury content and content of other contaminants found in each batch sold, or must assure that each batch meets the level specified below, based on its intended end use. (i) For uses employing heat and for uses unknown to the recycler, the end product must contain non-detectable levels of mercury as ascertained by SW-846 method 7471[19] (Footnote 19: Method 7471 is the only promulgated method at present. However, it is not aggressive enough to measure all of the mercury entrained in the glass and should be improved before finalization of this rule.) or equivalent, or recyclers must restrict product sales to users who have permitted mercury controls for their re-use applications. (ii) For uses not employing heat, end product mercury levels must meet appropriate LDR levels. (h) Lamp recyclers must keep on file an annual certification statement that they have complied with all applicable regulations under this Subpart. The certification statement must list all applicable requirements complied with.

#### RESPONSE

The Agency appreciates the commenter's suggestions for regulatory language addressing the management of hazardous waste lamps under ' 261.6; however, promulgation of requirements under ' 261.6 is beyond the scope of today's rulemaking. The universal waste management standards are designed to protect against emissions from lamps during all stages of lamp management. The universal waste rule includes storage and packaging standards for handlers of hazardous waste lamps to ensure the proper management of spent lamps and to prevent uncontrolled and unintentional breakage during storage and transport to the recycling or treatment facility.

The Agency also notes that today's rule does not change any regulatory requirements applicable to destination facilities (i.e., recycling facilities and treatment and disposal facilities). Under today's rule, those facilities are subject to all Subtitle C management requirements applicable to hazardous waste treatment, storage, and disposal facilities, although the Agency does not regulate

the actual process of reclaiming mercury. In addition, recycling facilities (as well as downstream facilities that reuse the recycled products) must comply with all applicable Clean Air Act requirements, all applicable worker safety standards under the Occupational Safety and Health Administration (OSHA), and all applicable state controls (including possible best management practices or other controls on the recycling process).

Residuals from recovery operations must also be managed in accordance with all applicable solid and hazardous waste management requirements. If residuals exhibit a characteristic of hazardous waste, they must be managed in accordance with all applicable hazardous waste management controls, including the requirements of 40 CFR Subpart C, standards for recyclable materials used in a manner constituting disposal.

The current universal waste rule prohibits universal waste handlers from crushing 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 for recovery, 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 allowed 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/m<sup>3</sup>.

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 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. EPA believes that this approach both ensures protection of human health and the environment while allowing for the development of state regulatory programs that include specific standards for the safe crushing of hazardous waste lamps.

DCN FLEP-00156

COMMENTS National Electrical Manufacturers Assn.

SUBJECT REGLAN

COMMENT Option A 261.4(b) Solid Wastes Which Are Not Hazardous Wastes:

(16) Spent mercury-containing lamps that are hazardous because they exhibit a characteristic and are disposed in any lined landfill unit with a leachate collection system or a Subtitle D municipal landfill unit or industrial solid waste landfill unit that meets the requirements for new landfill units under Part 258 if- (i)the standards of 266.200(b)(i)through (xii) are complied with; (ii)the landfill keeps records for three years of the number, volume, or weight of lamps disposed from segregated shipments, the generator of each shipment, the transporter of each shipment, and whether the lamps were crushed before being disposed in the landfill unit; (iii)the landfill disposes of crushed lamps in closed drums or containers; (iv)the landfill disposes of boxed, intact lamps in such a manner that breakage and thus air emissions of mercury do not occur; and (v) each party in the landfilling process keeps an annual certification on file which states that he/she has complied with all applicable requirements. The certification must also list all of the requirements complied with. (vi)Three years after promulgation of this exclusion for spent mercury-containing lamps, EPA shall initiate a study to evaluate the availability of cost-effective and quality recycling of spent lamp, the safety of end-use product applications, and any new risk data on landfilling especially air emissions. The provisions promulgated in 261.4(b)(16) shall remain in place until EPA determines that sufficient regional or national recycling capacity exists for all lamp types, that safe and appropriate markets exist for recovered products, and that the risk of landfilling is greater than recycling and greater than indicated at the time of promulgation. Option B 261.4(b) Solid Wastes Which Are Not

Hazardous Wastes: (16) Spent mercury-containing lamps that are hazardous waste because they exhibit a characteristic; (i) are destined for landfilling in units that comply with Subtitle D standards for new landfill units; (ii) are managed in compliance with procedures described in EPA Guidance Document XXXXXXXX, "Procedures for Management of Spent Mercury-Containing Lamps"; and (iii) are the subject of an annual certification kept on file by each party in the landfilling process which states that he/she has complied with all items listed in the Guidance Document. (iv) Three years after promulgation of the exclusion for spent mercury-containing lamps, EPA shall initiate a study to evaluate the availability of cost-effective and quality recycling of spent lamp, the safety of end-use product applications, and any new risk data on landfilling, especially at emissions. The provisions promulgated in 261.4(b)(16) shall remain in place until EPA determines that sufficient regional or national recycling capacity exists for all lamp types, that safe and appropriate markets exist for recovered products, and that the risk of landfilling is greater than recycling and greater than indicated at the time of promulgation.

#### RESPONSE

The Agency is not finalizing the conditional exclusion option for the management of hazardous waste lamps. Today's rule adds waste lamps exhibiting the toxicity characteristic for mercury and other constituents to the federal universal waste rule (40 CFR Part 273). Although the universal waste requirements do not change any of the standards applicable to facilities that ultimately recycle, or treat and dispose of spent lamps, this approach minimizes the regulatory requirements applicable to generators, collectors, and transporters of spent lamps. The universal waste rule removes some existing barriers to managing hazardous waste lamps under the full hazardous waste system by reducing technical and paperwork requirements applicable to generators and collectors, therefore making the collection of lamps more efficient and economical. At the same time, the universal waste management standards specific to lamps, which are finalized as part of today's rulemaking, are designed to minimize the hazards posed by the collection and shipment of spent lamps (e.g., designed to reduce the potential for mercury emissions due to uncontrolled crushing and inadvertent breaking of spent lamps).

Although the Agency believes that today's rule is likely to encourage the recycling of hazardous waste lamps, the rule does not mandate such recycling. Therefore, the Agency was not required to ensure that adequate recycling capacity exists. However, EPA believes that as demand for recycling continues or increases, investment in reclamation facilities will also increase, thus leading to an expansion in capacity. Lamp generators who have concerns about the capacity or effectiveness of particular lamp reclamation facilities may continue to dispose of lamps in Subtitle C landfills.

The Agency also notes that today's rule does not change any regulatory requirements applicable to destination facilities (i.e., recycling facilities and treatment and disposal facilities). Under today's rule, those facilities are subject to all Subtitle C management requirements applicable to hazardous waste treatment, storage, and disposal facilities, although the Agency does not regulate the actual process of reclaiming mercury. In addition, recycling facilities (as well as downstream facilities that reuse the recycled products) must comply with all applicable Clean Air Act requirements, all applicable worker safety standards under the Occupational Safety and Health Administration (OSHA), and all applicable state controls (including possible best management practices or other controls on the recycling process).

Residuals from recovery operations must also be managed in accordance with all applicable solid and hazardous waste management requirements. If residuals exhibit a characteristic of hazardous waste, they must be managed in accordance with all applicable hazardous waste management controls, including the requirements of 40 CFR Subpart C, standards for recyclable materials used in a manner constituting disposal.

The Agency does not believe that mandatory studies of the type suggested by the commenter are warranted at the present time.

DCN FLEP-00168

COMMENTS Merck and Company, Inc.

SUBJECT REGLAN

COMMENT The proposed regulatory language at Section 261.4(b)(16) states that an exclusion exists for: Spent mercury-containing lamps...State or Tribe. To qualify for this exclusion, a generator must maintain in its operating records for three years from the date of shipment a certification for each shipment of mercury-containing lamps that is signed by the generator or its authorized representative and that states the following: I certify, under penalty of law, that on [date], I consigned [amount] of mercury-containing lamps to [name and address of transporter] for [disposal] [recycling] at [name and address of disposal or recycling facility]. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. Merck believes that this subsection is too onerous based on the mercury-containing lamp disposal practice of attrition relamping as opposed to mass relamping. Merck suggests that the condition be revised to remove the certification requirements and use the established U.S. Department of Transportation shipping paper system instead. Merck further suggests that the exclusion read as follows: Spent

mercury-containing lamps...State or Tribe. To qualify for this exclusion, a generator must maintain in its operating records for three years from the date of shipment, the Sundry Shipping Order or Bill of Lading, as applicable, specifying the transporter, destination, and the quantity of lamps for each shipment of mercury-containing lamps.

RESPONSE

The Agency is not finalizing the conditional exclusion option for the management of hazardous waste lamps. Today's rule adds waste lamps exhibiting the toxicity characteristic for mercury and other constituents to the federal universal waste rule (40 CFR Part 273). Although the universal waste requirements do not change any of the standards applicable to facilities that ultimately recycle, or treat and dispose of spent lamps, this approach minimizes the regulatory requirements applicable to generators, collectors, and transporters of spent lamps. The universal waste rule removes some existing barriers to managing hazardous waste lamps under the full hazardous waste system by reducing technical and paperwork requirements applicable to generators and collectors, therefore making the collection of lamps more efficient and economical. At the same time, the universal waste management standards specific to lamps, which are finalized as part of today's rulemaking, are designed to minimize the hazards posed by the collection and shipment of spent lamps (e.g., designed to reduce the potential for mercury emissions due to uncontrolled crushing and inadvertent breaking of spent lamps).

The universal waste rule includes a basic recordkeeping requirement to track waste shipments arriving at and leaving from sites owned by large quantity handlers of universal waste (i.e., handlers who accumulate greater than 5,000 kg total universal waste at one time). The required records may take the form of a log, invoice, manifest, bill of lading, or other shipping document and are to be maintained for three years. The Agency believes that standard business records that would normally be kept by any business will fulfill this requirement.

DCN FLEP-00179

COMMENTER Environmental Defense Fund

SUBJECT REGLAN

COMMENT Finally, we suggest that EPA make the following changes to its proposed rule language: -the proposed section 273.3 definition for electric lamp should add the phrase "by conversion from electrical energy" after the word "spectrum" to exclude miner's lamps, mantles on gasoline lanterns, etc., and -all proposed sections covering containment of lamp residues from broken lamps should explicitly include containment of lamp vapors.

RESPONSE

The Agency thanks the commenter's suggestion for regulatory language addressing the management of hazardous waste lamps. In response to comments received on the proposed definitions, and to reduce potential confusion regarding the scope of the final rule, in today's final



rule the Agency is finalizing a single definition of lamp or universal waste lamp. In addition, in the applicability section of today's rule, the Agency is clarifying that all hazardous waste lamps fall within the scope of the universal waste rule. 40 CFR ' 260.10 defines 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. The Agency believes that the use of the phrase "electric lighting device" in today's rule renders unnecessary further reference to electric energy. EPA also believes that the current regulatory requirement for immediate containment of broken lamps is adequate to ensure containment of lamps vapors.

DCN FLEP-00182

COMMENTS Eastman Kodak Company

SUBJECT REGLAN

COMMENT VI. Regulatory Language: Proposed Revisions The proposed

' 261.4(b)(16) language regarding the conditional exclusion

begins with the phrase "Spent mercury-containing lamps..."

(emphasis added). Should this language be promulgated, it will

inevitably lead to a long series of arguments over what it takes

for a lamp to be "spent."

RESPONSE

The Agency thanks the commenter's suggestion for regulatory language addressing the management of hazardous waste lamps. The Agency is not promulgating the conditional exclusion option for hazardous waste lamps. Today's rule adds hazardous waste lamps to the federal universal waste rule. A used lamp becomes a waste on the date that it is discarded. In addition, an unused lamp becomes a waste on the date a handler decides to discard it.

DCN FLEP-00182

COMMENTS Eastman Kodak Company

SUBJECT REGLAN

COMMENT As noted above [8] [Footnote 8: See Section III discussion on

page 3], Kodak believes that requiring the certification

statement be signed for every shipment, and records of them be

kept for three years, is unproductive and unnecessary for such a

low risk waste. Therefore, the regulatory language should be

changed to only require a certification be signed prior to the

initial shipment to a MSW landfill or recycling facility and be

documented in the generating facility's records. This would

allow an Agency inspector to readily identify the destination

for the facility's lamps and determine potential noncompliance.

It would relieve the facility personnel from having to worry

about counting every lamp which was thrown in the trash, providing that the facility's trash is sent to an approved MSW landfill. With the two abovementioned changes, the ' 261.4(b)(16) exclusion should read: (16) Mercury-containing lamps which are disposed in municipal solid waste landfills in States or Indian Tribes with an EPA approved State or Tribal municipal solid waste landfill program or managed in mercury reclamation facilities that are permitted, licensed or registered by a State or Tribe. To qualify for this exclusion, a generator must maintain in its operating records a certification, completed and signed by the generator or its authorized representative prior to the first shipment to an authorized facility, that states the following: I certify, under penalty of law that I will be consigning mercury-containing lamps subject to the ' 261.4(b)(16) exclusion to [name and address of transporter] for [disposal][recycling] at [name and address of disposal or recycling facility]. I am aware that there are significant penalties for noncompliance with conditions of the ' 261.4(b)(16) exclusion including the possibility of fine and imprisonment for knowing violations.

#### RESPONSE

The Agency is not finalizing the conditional exclusion option for the management of hazardous waste lamps. Today's rule adds hazardous waste lamps to the federal universal waste rule (40 CFR Part 273). Although the universal waste requirements do not change any of the standards applicable to facilities that ultimately recycle, or treat and dispose of spent lamps, this approach minimizes the regulatory requirements applicable to generators, collectors, and transporters of spent lamps. The universal waste rule removes some existing barriers to managing hazardous waste lamps under the full hazardous waste system by reducing technical and paperwork requirements applicable to generators and collectors, therefore making the collection of lamps more efficient and economical. At the same time, the universal waste management standards specific to lamps, which are finalized as part of today's rulemaking, are designed to minimize the hazards posed by the collection and shipment of spent lamps (e.g., designed to reduce the potential for mercury emissions due to uncontrolled crushing and inadvertent breaking of spent lamps).

The universal waste rule includes a basic recordkeeping requirement to track waste shipments arriving at and leaving from sites owned by large quantity handlers of universal waste (i.e., handlers who accumulate greater than 5,000 kg total universal waste at one time). The required records may take the form of a log, invoice, manifest, bill of lading, or other shipping document and are to be maintained for three years. The Agency believes that standard business records that would normally be kept by any business will fulfill this requirement.

DCN FLEP-00186

COMMENTER Building Owners or Managers Assn. Int.

SUBJECT REGLAN

COMMENT BOMA REQUESTS CLARIFICATION BOMA International requests that EPA clarify the definition of "generator." The generator is usually considered to be the person or company who "generates" the waste product -- which, in an owner-occupied facility, is fairly straightforward. However, in multi-tenant office buildings, it is unclear whether the generator is the tenant, the building (thereby the owner or manager), or the company that owns or manages the property (in which case, the hazardous waste total would be cumulative from all the buildings owned or managed by that company). As discussed earlier, lease agreements may vary significantly -- which also impacts the "generator." Especially in triple net leases (a type of lease commonly used for restaurants and industrial properties under which the tenant pays the agreed-upon rent and all other costs, such as maintenance, cleaning, and utilities, are additional), tenants are required to assume responsibility for relamping and hazardous waste disposal. In other cases, the building owner is responsible for relamping, but the tenant assumes responsibility for most other types of hazardous waste. Even in buildings where the owner or manager assumes responsibility for hazardous waste, the owner/manager cannot reasonably be expected to know if the tenant is disposing of hazardous waste mixed in the normal waste stream.

RESPONSE

Under Subtitle C, all parties that contribute to the generation of a hazardous waste (such as the owner/operator of the facility and a firm contracted to remove hazardous waste) are jointly liable as generators. In these situations, one party may assume and perform the generator duties. This concept does not change under the universal waste regulations. Both a contractor relamping a facility and the owner/operator of the facility are considered co-generators of the hazardous waste hazardous waste lamps, and either the contractor or the facility itself will be responsible for complying with the universal waste handler requirements. However, both parties can be held liable for releases from the mismanagement of the lamps. The Agency notes that any handler of waste can be held liable for releases of hazardous constituents from his waste regardless of the status of the waste under Subtitle C.

DCN FLEP-00191

COMMENTER Utility Solid Waste Activities Group

SUBJECT REGLAN

COMMENT To clarify this point, USWAG suggests that EPA amend the second

sentence of the proposed MSWLF regulatory language (proposed ' 261.4(b)(1 6)) to, read: "To qualify for this exclusion, a generator (with the exception of conditionally exempt small quantity generators defined in 40 C.F.R. ' 261.5) must maintain in its operating records for three years from the date of shipment a certification for each shipment of mercury-containing lamps that is signed by the generator or its authorized representative that states the following: . ."

#### RESPONSE

The Agency is not finalizing the conditional exclusion option for the management of hazardous waste lamps. Today's rule adds hazardous waste lamps to the federal universal waste rule (40 CFR Part 273). Although the universal waste requirements do not change any of the standards applicable to facilities that ultimately recycle, or treat and dispose of spent lamps, this approach minimizes the regulatory requirements applicable to generators, collectors, and transporters of spent lamps. The universal waste rule removes some existing barriers to managing hazardous waste lamps under the full hazardous waste system by reducing technical and paperwork requirements applicable to generators and collectors, therefore making the collection of lamps more efficient and economical. At the same time, the universal waste management standards specific to lamps, which are finalized as part of today's rulemaking, are designed to minimize the hazards posed by the collection and shipment of spent lamps (e.g., designed to reduce the potential for mercury emissions due to uncontrolled crushing and inadvertent breaking of spent lamps).

The universal waste rule includes a basic recordkeeping requirement to track waste shipments arriving at and leaving from sites owned by large quantity handlers of universal waste (i.e., handlers who accumulate greater than 5,000 kg total universal waste at one time). The required records may take the form of a log, invoice, manifest, bill of lading, or other shipping document and are to be maintained for three years. The Agency believes that standard business records that would normally be kept by any business will fulfill this requirement.

DCN FLEP-00309

COMMENTER Bethlehem Apparatus Company

SUBJECT REGLAN

COMMENT C. Proposed Modifications. Therefore, the following underscored modifications should be made to Section 273.273.31 Generator Requirements. (b)(1) Contain unbroken lamps in packaging that will minimize breakage during normal handling operations. All such packaging shall include containers which satisfies DOT-Class III Packaging requirements. (b)(2) Contain broken lamps in 55-gallon steel drums that will minimize releases of lamp fragments and residues. These modifications should also be made in the appropriate locations of the

Transporter Requirements (Section 273.32 (a)(1)(i) and (ii));  
and the Consolidation Point Requirements (Section  
273.33(a)(1) and (2)).

#### RESPONSE

The Agency thanks the commenter for the suggestions for management standards for hazardous waste lamps. As provided in the preamble to the proposed rule, the Agency, in promulgating standards for the management of hazardous waste lamps within the universal waste rule, has decided to establish standards that are consistent with the previously promulgated standards in 40 CFR Part 273. Today's final rule, therefore, provides that hazardous waste lamps must be stored in containers and/or packaging that remain closed, are structurally sound, are adequate to prevent breakage, are compatible with contents of lamps, and that lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions. 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. If a release occurs, 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 272.

DCN FLEP-00309

COMMENTS Bethlehem Apparatus Company

SUBJECT REGLAN

COMMENTS Accordingly, Bethlehem recommends that the following underscored changes be made to proposed Section 273. Definitions 273.3 Lamp Crusher. A lamp crusher shall be comprised of a steel 55-gallon drum receptacle, a rigid compression or crushing device and an air filtration device capable of capturing and removing mercury vapor from the air to the extent that the ambient air to which any worker migrating the crusher is exposed is not in excess of OSHA standards." Generator Requirements 273.31(e) Prohibitions (2). Prohibited from treating them, except by the use of a Lamp Crusher or responding to releases as provided in paragraphs (f)(1) and (f)(2) of this section; and 273.31(f) Lamp Management (1). A generator must at all times manage hazardous waste lamps in a way that minimizes lamp breakage except during operation of a Lamp Crusher. Consolidation Point Requirements "273.33(c) Prohibitions (2). Prohibited from treating them, except by the use of a Lamp Crusher or responding to releases as provided in paragraphs (d)(1) and (d)(2) of this section: and 273.33(d) Lamp Management (1). The owner or operator of a consolidation point must at all times manage hazardous waste lamps in a way that minimizes lamp

breakage, except during the operation of a Lamp Crusher.

#### RESPONSE

The Agency is not finalizing the conditional exclusion option for the management of hazardous waste lamps. Today's rule adds hazardous waste lamps to the federal universal waste rule (40 CFR Part 273). The current universal waste rule prohibits universal waste handlers from crushing 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 for recovery, 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 allowed 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/m<sup>3</sup>.

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 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. EPA believes that this approach both ensures protection of human health and the environment while allowing for the development of state regulatory programs that include specific standards for the safe

crushing of hazardous waste lamps.

DCN FLEP-L0007

COMMENTS Office of the Under Secretary of Defense

SUBJECT REGLAN

COMMENT 3. Under Option 1, proposed regulation 40 CFR 261.4(b)(16)

states that to qualify for this exclusion "...a generator must maintain in its operating records..." (underline added) the required certification for each shipment of mercury containing lamps. There is no requirement under current hazardous waste regulations for a person with generator status only, or accumulating hazardous waste in accordance with the provisions of 40 CFR 262.34 (at least in regard to containers), to maintain operating records. Consequently, the meaning of the proposed regulation as presently written is ambiguous and confusing. While strongly arguing that such documentation should not be required, if EPA decides that documentation is necessary to demonstrate compliance with the conditions of this exclusion, recommend the words "at his facility" be substituted for the words "in its operating records" in the second sentence of proposed regulation 40 CFR 261.4(b)(16). 4. Recommend the word "electric" be substituted for the word "mercury-containing" in the first sentence of proposed regulation 40 CFR 261.4(b)(16). This change seems appropriate since any type of waste lamp that may fail the toxicity characteristics for other TC metals besides mercury under option 1 should be afforded the same conditional exemption as mercury-containing lamps.

RESPONSE

The Agency is not finalizing the conditional exclusion option for the management of hazardous waste lamps. Today's rule adds hazardous waste lamps to the federal universal waste rule. (40 CFR Part 273).

Although the universal waste requirements do not change any of the standards applicable to facilities that ultimately recycle, or treat and dispose of spent lamps, this approach minimizes the regulatory requirements applicable to generators, collectors, and transporters of spent lamps. The universal waste rule removes some existing barriers to managing hazardous waste lamps under the full hazardous waste system by reducing technical and paperwork requirements applicable to generators and collectors, therefore making the collection of lamps more efficient and economical.

At the same time, the universal waste management standards specific to lamps, which are finalized as part of today's rulemaking, are designed to minimize the hazards posed by the collection and shipment of spent lamps (e.g., designed to reduce the potential for mercury emissions due to uncontrolled crushing and inadvertent breaking of spent lamps).

The universal waste rule includes only a basic recordkeeping requirement to track waste shipments arriving at and leaving from sites owned by large quantity handlers of universal waste (i.e., handlers who accumulate greater than 5,000 kg total universal waste at one time). The required records may take the form of a log, invoice, manifest, bill of lading, or other shipping document and are to be maintained for three years. The Agency believes that standard business records that would normally be kept by any business will fulfill this requirement.

In the proposed rule, the Agency proposed definitions for **electric lamp** and **hazardous waste lamp**. To both clarify and simplify the proposed definitions, and in response to comments, the Agency is finalizing a single definition of **hazardous waste lamp**. **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-00090

COMMENTS The Boeing Company

SUBJECT REGLAN

COMMENT Special packaging and transportation requirements In accordance with the comment above, we suggest the proposed 273.31 (b) condition of hazardous waste lamps to be rewritten as follows:  
(1) Contain unbroken lamps in packaging that will minimize breakage during normal handling conditions; or (2) Contain lamps in packaging that will minimize releases of lamp fragments and residues.

#### RESPONSE

The Agency thanks the commenter for submitting suggestions for regulatory language addressing the management of hazardous waste lamps. Today's rule adds hazardous waste lamps to the federal universal waste rule. The universal waste rule removes some existing barriers to managing hazardous waste lamps under the full hazardous waste system by reducing technical and paperwork requirements applicable to generators and collectors, therefore making the collection of lamps more efficient and economical. At the same time, the universal waste management standards specific to lamps, which are finalized as part of today's rulemaking, are designed to minimize the hazards posed by the collection and shipment of spent lamps (e.g., designed to reduce the potential for mercury emissions due to uncontrolled crushing and inadvertent breaking of spent lamps).

Hazardous waste lamps must be stored in containers and/or packaging that remain closed, are structurally sound, are adequate to prevent breakage, are compatible with contents of lamps, and that lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions. 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. If a release occurs, 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 272.

DCN FLEP-00171

COMMENTS Monsanto Company

SUBJECT REGLAN

COMMENT A. The Rulemaking Should Be Limited to Mercury-Containing Lamps.

In the preamble of this rulemaking, the Agency discusses at length the management of mercury-containing lamps and the relative merits of managing such wastes under reduced requirements. The discussion revolves around the emissions and releases of mercury under the various management scenarios. It does not discuss issues related to the management of other wastes, including non-mercury-containing wastes or lamps. For this reason, we believe it is improper for the Agency to structure the proposed language of new Part 273 Subpart D (The Universal Waste option) to relate to "Hazardous Waste Lamps" or to "Lamps that are Hazardous Wastes." Indeed, the term "hazardous waste lamps" is not even defined. The Agency has not established a basis for a scope of a management requirement for Universal Wastes to reach beyond mercury-containing lamps. Indeed, the Agency has not established a basis for a claim that such lamps are even hazardous, and to this time has made no claim to that effect.

RESPONSE

Today's rule adds waste lamps exhibiting a hazardous waste characteristic to the federal universal waste rule. These lamps are hazardous because they frequently fail the TCLP for mercury and sometimes lead. For the reasons explained in the preamble, EPA has concluded that these lamps are appropriately included in the universal waste approach.

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-00189

COMMENTER National Aeronautics and Space Admin.

SUBJECT REGLAN

COMMENT The Agency should be careful about defining "full truckloads" since lamps are currently, transported in different size trucks.

RESPONSE

The Agency has decided that the final notification standards for hazardous waste lamps should remain consistent with the provisions established universal waste rule. Therefore, the 5,000 kilogram limit for the accumulation of all universal wastes will continue to apply to all universal waste handlers (e.g., handlers of batteries, pesticides, mercury thermostats, and/or hazardous waste lamps).

As explained in the preamble to the final universal waste rule, the Agency believes that the *total* amount of universal waste being managed at a handler's site is a better indicator of potential risk, than the quantity of individual universal wastes being accumulated and handled at a given site. The cut off limit for notification is higher than the requirement under the full hazardous waste regulations (i.e., 100 kilograms for conditionally-exempt small quantity generators) but lower than the proposed 35,000 lamp limit, which is equivalent to approximately 10,000 kilograms. EPA has determined that the 5,000 kilogram limit is appropriate for facilities handling hazardous waste lamps and enables facilities to take advantage of the economies of scale available from making fewer large shipments of universal waste, as opposed to numerous small shipments, while ensuring that regulatory agencies are aware of the larger generators. In addition, as several commenters to the proposed lamps rule pointed out, it is more practical to set the notification requirement on the basis of a quantity of waste accumulated rather than the total number of items generated. It is easier for a handler to weigh the amount of waste accumulated than it is to count the total number of individual items (e.g., individual light bulbs) accumulated.

DCN FLEP-00141

COMMENTER Dow Chemical Company

SUBJECT REGLAN

COMMENT DEFINITION OF MERCURY-CONTAINING LAMP In 38289/2,

"Mercury-containing lamp" is defined to be lamps in which, "mercury is purposely introduced by the manufacturer for the operation of the lamp." However, in both alternatives of the regulation (40 CFR 273.3), the verb becomes plural. Perhaps in a previous draft the noun was "mercury compounds." The use of the noun "mercury" is preferable, but the verb should also be singular. Additionally, it seems inappropriate to have the exclusion depend on who added the mercury. If part of the manufacturing process is subcontracted, does the exclusion not

apply? Any risk to human health and the environment is the existence of the mercury in the disposed lamps. There is no reason to have this regulation dependent on the business arrangement(s) of the manufacturer(s) of the lamps. Similarly, the requirement that the mercury be introduced to the lamp "for the operation of the lamp," seems needless. Would this allow an argument that mercury contained in solder to make electrical contact with the lamp is not subject to this regulation? Dow suggests that the definition be changed to read:

Mercury-containing lamp is an electric lamp which contains mercury.

#### RESPONSE

Today's final rule adds hazardous waste lamps to the universal waste regulations under 40 CFR Part 273. The Agency has determined that hazardous waste lamps meet the criteria established for designating a material as universal waste. The universal waste rule provides a reduced, or streamlined set of requirements (i.e., universal waste rule standards are less stringent than full Subtitle C management standards). In today's rule, the Agency is not finalizing the conditional exclusion option for the management of hazardous waste lamps.

To simplify the proposed definitions, and in response to comments, the Agency is today finalizing a single definition of *lamp*, or *universal waste lamp*. *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-00156

COMMENTER National Electrical Manufacturers Assn.

SUBJECT REGLAN

COMMENT Option B 261.4(b) Solid Wastes Which Are Not Hazardous Wastes:

(16) Spent mercury-containing lamps that are hazardous waste because they exhibit a characteristic; (i) are destined for landfilling in units that comply with Subtitle D standards for new landfill units; (ii) are managed in compliance with procedures described in EPA Guidance Document XXXXXXXX, "Procedures for Management of Spent Mercury-Containing Lamps"; and

#### RESPONSE

The Agency is not finalizing the conditional exclusion option for the management of hazardous waste lamps. Today's rule adds waste lamps exhibiting a hazardous waste characteristic to the federal universal waste rule (40 CFR Part 273). Although the universal waste requirements do

not change any of the standards applicable to facilities that ultimately recycle, or treat and dispose of spent lamps, this approach minimizes the regulatory requirements applicable to generators, collectors, and transporters of spent lamps. The universal waste rule removes some existing barriers to managing hazardous waste lamps under the full hazardous waste system by reducing technical and paperwork requirements applicable to generators and collectors, therefore making the collection of lamps more efficient and economical. At the same time, the universal waste management standards specific to lamps, which are finalized as part of today's rulemaking, are designed to minimize the hazards posed by the collection and shipment of spent lamps (e.g., designed to reduce the potential for mercury emissions due to uncontrolled crushing and inadvertent breaking of spent lamps).

DCN FLEP-00141

COMMENTS DOW Chemical Company

SUBJECT REGLAN

COMMENT While this proposal discusses, by implication on page 38295, that hazardous, mercury-containing lamps may be generated at a TSDF, the regulations under this alternative do not clearly show how such a generator may alternatively manage hazardous, mercury-containing lamps in both the RCRA and Universal Waste systems. Dow suggests that storage of more than 35,000 hazardous, mercury-containing lamps at any site be allowed in any RCRA storage area. Dow suggests that 40 CFR ' 273.31(d) and (e) be amended to read, in part: (d)Notification. (1) A generator who stores more than 35,000 hazardous waste lamps at any site, at any time, outside the requirements of 40 CFR parts 260 through 272 of this chapter, must have, before exceeding the 35,000 lamp quantity limit, sent written notification of hazardous waste lamp storage to the Regional Administrator and have a EPA Identification Number. (e)Prohibitions. A generator of hazardous waste lamps is, while each hazardous waste lamp is being managed outside the requirements of 40 CFR parts 260 through 272 of this chapter:

RESPONSE

EPA points out that universal wastes are still hazardous waste and are still within the RCRA Subtitle C system. However, the universal waste rule removes some existing barriers to managing hazardous waste lamps under the full hazardous waste system by reducing technical and paperwork requirements applicable to generators and collectors, thereby making the collection of lamps more efficient and economical. At the same time, the universal waste management standards specific to lamps, which are finalized as part of today's rulemaking, are designed to minimize the hazards posed by the collection and shipment of spent lamps (e.g., designed to reduce the potential for emissions due to uncontrolled crushing and inadvertent breaking of spent lamps).

EPA also decided to adopt the existing definitions of **A**small quantity handler<sup>®</sup> and **A**large quantity handler<sup>®</sup> in 40 CFR Part 273, rather than to adopt the 35,000 lamp threshold. Under the universal waste rule, large quantity handlers of universal waste are subject to the notification requirement. Handlers that accumulate more than 5,000 kg total of universal wastes at any one time is designated as a large quantity handlers of universal waste and are subject to the notification requirements of 40 CFR 273.32. The notification requirement is a one-time notification and is applicable on a **A**site-specific<sup>®</sup> basis. Large quantity handlers must notify the EPA Regional Administrator of their universal waste management activities and obtain an EPA identification number. Today's final rule maintains the current requirements for the content of the notification. Small quantity handlers of hazardous waste lamps are not required to notify EPA of spent lamp handling activities. In addition, large quantity generators of hazardous waste who have already received an EPA identification number are not required to re-notify under 40 CFR ' 273.32.

Under today's rule, TSDFs would be considered destination facilities and subject to all applicable Subtitle C requirements, including storage.

DCN FLEP-00136

COMMENTER Wisconsin Dept. of Natural Resources

SUBJECT REGLAN

COMMENT 6.P. 38302, Option 1, proposed 40 CFR 261.4(b)(16): References to the landfilling option should be removed.

RESPONSE

The Agency is not finalizing the conditional exclusion option for the management of hazardous waste lamps. Today's rule adds waste lamps exhibiting a hazardous waste characteristic to the federal universal waste rule (40 CFR Part 273). The universal waste approach is appropriate for addressing the collection of spent hazardous waste lamps that are hazardous wastes. Although the universal waste requirements do not change any of the standards applicable to facilities that ultimately recycle, or treat and dispose of spent lamps, this approach minimizes the regulatory requirements applicable to generators, collectors, and transporters of spent lamps. The universal waste rule removes some existing barriers to managing hazardous waste lamps under the full hazardous waste system by reducing technical and paperwork requirements applicable to generators and collectors, therefore making the collection of lamps more efficient and economical.

At the same time, the universal waste management standards specific to lamps, which are finalized as part of today's rulemaking, are designed to minimize the hazards posed by the collection and shipment of spent lamps (e.g., designed to reduce the potential for mercury emissions due to uncontrolled crushing and inadvertent breaking of spent lamps).

DCN FLEP-00164

COMMENTER E.I. Du Pont De Nemours and Co., Inc.

SUBJECT REGLAN

COMMENT The Agency should apply any exclusion universally to include both spent and unspent lamps.

**DU PONT REQUESTS THAT THE AGENCY APPLY ANY EXCLUSIONS UNIVERSALLY TO INCLUDE BOTH SPENT AND UNSPENT LAMPS**

In order to minimize confusion in the regulated community that would result from generators trying to create separate handling and accounting systems for "unspent" (new) bulbs as opposed to "spent" bulbs, DuPont suggests that all lamps, spent or unspent, be considered the same for the purposes of any conditional exclusions or exemption developed by the Agency. Normally lamps would not be disposed of until they are spent, except for new lamps damaged in either shipping or handling prior to installation. Despite the fact that relatively few lamps will fall into this category, DuPont believes that it is important for the Agency to craft a final regulation that clarifies all issues of concern to the regulated community. Therefore, DuPont requests that the Agency address this issue in the preamble to any final rule or in their response to comments prepared by the Agency as part of the RCRA docket for this rulemaking.

**RESPONSE**

The Agency is not finalizing the conditional exclusion option for the management of hazardous waste lamps. Today's rule adds waste lamps exhibiting a hazardous waste characteristic to the federal universal waste rule (40 CFR Part 273). The universal waste approach is appropriate for addressing the collection of spent hazardous waste lamps that are hazardous wastes. Although the universal waste requirements do not change any of the standards applicable to facilities that ultimately recycle, or treat and dispose of spent lamps, this approach minimizes the regulatory requirements applicable to generators, collectors, and transporters of spent lamps. The universal waste rule removes some existing barriers to managing hazardous waste lamps under the full hazardous waste system by reducing technical and paperwork requirements applicable to generators and collectors, therefore making the collection of lamps more efficient and economical.

At the same time, the universal waste management standards specific to lamps, which are finalized as part of today's rulemaking, are designed to minimize the hazards posed by the collection and shipment of spent lamps (e.g., designed to reduce the potential for mercury emissions due to uncontrolled crushing and inadvertent breaking of spent lamps).

40 CFR Section 273.4(c) describes when a lamp become waste. A used lamp becomes a waste on the date that it is discarded. In addition, an unused lamp becomes a waste on the date a handler decides to discard it. This would include new bulbs that are damaged.

DCN FLEP-00166

COMMENTS American Electric Power Service Corp.

SUBJECT REGLAN

COMMENT AEP urges EPA to clarify that the conditional exclusion permits disposal in a municipal solid waste (MSW) facility which

is simply permitted, licensed or registered by a state with an authorized MSW program. AEP strongly urges EPA to include, in the rulemaking a full exemption from RCRA hazardous waste regulation for de minimis quantities of lighting waste generated at smaller facilities.

#### RESPONSE

The Agency is not finalizing the conditional exclusion option for the management of hazardous waste lamps. Today's rule adds waste lamps exhibiting a hazardous waste characteristic to the federal universal waste rule (40 CFR Part 273). Under today's rule untreated hazardous waste lamps may not go to municipal solid waste landfills.

Today's rule does not affect the regulatory status of generators of small volumes of spent lamps, including households and conditionally exempt small quantity generators (CESQGs are facilities that generate less than 100 kilograms of hazardous waste, including waste lamps, in any given month.) Household and CESQG hazardous waste lamps may continue to be disposed of at Subtitle D disposal facilities.

DCN FLEP-00191

COMMENTER Utility Solid Waste Activities Group

SUBJECT REGLAN

COMMENT Another matter that is important to clarify is that the Agency's classification of the MSWLF option as a "conditional exclusion" from hazardous waste regulation (see id. at 38293) is a misnomer. The phrase "conditional exclusion" suggests that EPA is proposing to exclude lamps from regulation. In fact, however, the MSWLF option is not an "exclusion" but rather sets forth the parameters of the definition of "hazardous waste" as applied to mercury-containing lamps. While this a subtle distinction, it is important to recognize from a policy and legal perspective.

#### RESPONSE

The Agency is not finalizing the conditional exclusion option for the management of hazardous waste lamps. Today's rule adds waste lamps exhibiting a hazardous waste characteristic to the federal universal waste rule (40 CFR Part 273). Although the universal waste requirements do not change any of the standards applicable to facilities that ultimately recycle, or treat and dispose of spent lamps, this approach minimizes the regulatory requirements applicable to generators, collectors, and transporters of spent lamps. The universal waste rule removes some existing barriers to managing hazardous waste lamps under the full hazardous waste system by reducing technical and paperwork requirements applicable to generators and collectors, therefore making the collection of lamps more efficient and economical. At the same time, the universal waste management standards specific to lamps, which are finalized as part of today's rulemaking, are designed to minimize the hazards posed by the collection and shipment of spent lamps (e.g., designed to reduce the potential for mercury emissions due to uncontrolled crushing and

inadvertent breaking of spent lamps).

DCN FLEP-L0002

COMMENTER Memphis Light, Gas and Waste Division

SUBJECT REGLAN

COMMENT In addition, MLGW urges EPA to state, categorically, that this rule pertains only to the mercury "contaminant" of the mercury-containing lamp, and does not eliminate the need to dispose of any other hazardous waste contaminant, such as the lead content in the solder points of the lamp.

**RESPONSE**

Today's rule adds waste lamps exhibiting a hazardous waste characteristic to the federal universal waste rule. EPA studies and data received from commenters indicate that the majority of hazardous waste lamps fail the TCLP for mercury and sometimes lead. Spent lamps that exhibit any of the hazardous waste characteristics are subject to today's rulemaking. For the reasons explained in the preamble EPA has determined that these lamps are appropriately included in the universal waste rule. It should be noted that under the universal waste rule, full Subtitle C requirements continue to apply to facilities that recycle or treat and dispose of hazardous waste lamps.