

DRAFT LETTER NOT FOR OUTSIDE OF AEF MEMBERSHIP

David Witherow
Deputy Associate Director
Department of Land Resources
Arkansas Energy and the Environment
5301 Northshore Drive
North Little Rock, AR 72118

Dear Mr. Witherow,

Thank you and the Office of Land Resources, Division of Environmental Quality (DEQ-OLR), for working toward the regulatory mission and industry's goal to protect the public health, safety, and the environment. We appreciate your willingness to create and support an open and productive relationship with the Arkansas Environmental Federation (AEF), and in the spirit of continuing that rapport, AEF would like to seek your reconsideration of a recent policy related waste determination and universal waste handling.

In June, a member of AEF requested guidance from the compliance group of DEQ-OLR on the disposal of lighting equipment using Light Emitting Diodes (LED lights). Specifically, this industry partner asked:

- How can the waste determination for LED lights be made, testing or Safety Data Sheet (SDS)?
- If the LED lights are determined to have characteristics of hazardous waste, can the LED lights be handled as waste consumer electronics?

DEQ-OLR replied in email¹ to the universal waste question, "While LED lamps are not specifically cited as an example in the definition of universal waste lamps found in Section 273.9, it is DEQ's determination that LED lamps would be considered universal waste lamps and not universal waste consumer electronic items. DEQ would not consider LED lamps as a subset of universal waste consumer electronic items, even though LED lamps have a semiconductor chip consisting of electrical components."

As for the determination question, DEQ-OLR responded verbally that the SDS for the LED lights would not be sufficient to make the non-hazardous determination for the LED.

These policy decisions by DEQ-OLR were brought to the attention of AEF due to these new interpretations have far-reaching effects on waste determinations and waste handling procedures for industry in Arkansas.

The rejection of a product's SDS for waste determination was unexpected based on the experience of interested AEF industry members. AEF researched the specific information required to be included in a product's SDS. As stated in 29 CFR 1910.1200 Appendix D, the SDS must include certain sections that provide information related to the potential of hazardous waste characteristics when the product is deemed a waste. These sections are Section 6 - Accidental Release Measures, Section 7 - Handling and Storage, Section 8 - Exposure Controls/Personal

Protection, Section 9 - Physical and Chemical Properties, Section 10 - Stability and reactivity, and Section 11 - Toxicological information. Two additional sections, Section 12 - Ecological Information and Section 13 - Disposal Considerations, are non-mandatory, but when these sections are present, they are required to include information that AEF believes completes the body of data needed to make the non-hazardous determination. Specifically, Section 12 must describe the material's ecotoxicity, persistence/degradability, bioaccumulative potential, mobility in soil, and other adverse effects, and Section 13 describes any waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging.

To confirm AEF's belief in the reliance of SDS information for waste determinations and based on the experience of AEF members with facilities in other states, AEF reached out to the environmental regulators of neighboring states and received responses from Texas, Tennessee, Missouri, and Oklahoma. AEF asked the environmental regulators specifically about methods for determining if LED lights were hazardous or non-hazardous wastes. All four states responded that the SDS was sufficient to determine if the waste LED lights were non-hazardous, and if so, the waste LED lights can be treated as ordinary solid waste.

AEF also looked into previous guidance from DEQ. The Office of Air Quality previously published guidance that described acceptable methods to estimate air emissions using Material Safety Data Sheets in a document titled How to Use an MSDS or Product Data Sheet for Air Emissions², and the Office of Water Quality routinely uses SDS information to approve NPDES modifications³. In addition, DEQ published the Environmental Guidebook for Arkansas's Automotive Dismantlers and Recyclers,⁴ which advised waste generators to "obtain and read Material Safety Data Sheets" as one of the "several ways to identify hazardous wastes."

AEF is also concerned with this determination that LED lights be handled as universal waste lamps instead of consumer electronic waste. While it is true that LED lights mostly meet the current definition for a lamp in Rule 23 §273.9, this is due to a definition by function rather than content, and for most other hazardous wastes in Rule 23, chemical content is the driver. A review of the history and justification for the special handling rules for universal waste lamps shows these rules were created to protect people and the environment from the immediate threat of mercury vapors and halogen gasses. However, LED lights contain neither mercury vapors nor halogen gasses, so these components will not be released if broken. LED lights do have the potential to contain regulatory amounts of zinc, copper, lead, and other metals, similar to the components of regulatory concern for consumer electronic waste, like LED televisions or cell phones. Even guidance on handling universal waste lamps from DEQ's website focuses exclusively on the mercury vapor in spent fluorescent lamps.⁵

DEQ-OLR's recent policy statement differs with surrounding states in other ways. During our discussions with the other states, Texas, Tennessee and Missouri all stated that LED lights are either a solid waste or an e-waste (consumer electronic waste), and can be handles as such.

Based on AEF's experience, research, and discussions with regulators from neighboring states, AEF requests that DEQ-OLR review these recent policy changes. Specifically, we request a review of the use of a product's SDS for non-hazardous determinations, especially when the SDS includes Sections 12 and 13. We also request a reconsideration of the handling rules that apply to

LED lights considering the potential regulatory components are more in line with the regulatory components of consumer electronic waste.

We appreciate your consideration and are hopeful for a meeting for further discussion if you need additional clarification on AEF's reasoning and opinion.

Sincerely,

Ava F. Roberts

Executive Director

Arkansas Environmental Federation

Citations:

1 - DEQ Response Email (attached)

2 - How to Use an MSDS or Product Data Sheet for Air Emissions;

https://www.adeg.state.ar.us/poa/enterprise-services/industry/pdfs/business_assistance_msds.pdf

3 – DEQ-OWQ acceptance of SDS documents for permitting decision;

https://www.adeg.state.ar.us/downloads/WebDatabases/PermitsOnline/NPDES/PermitInformation/AR0045977_Request%20to%20Process%20Cooling%20Tower%20Commissioning%20Water_20181019.pdf

4 - Environmental Guidebook for Arkansas's Automotive Dismantlers and Recyclers;

https://www.adeg.state.ar.us/poa/enterprise-services/industry/pdfs/arkansas_auto_salvage_guidebook.pdf

5 - DEQ Universal Waste Guidance: “How does Arkansas regulate spent fluorescent lamps?” & “What about crushing lamps to make them easier to handle?”;

<https://www.adeg.state.ar.us/hazwaste/enforcement/universal.aspx>