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To Be or Not To Be? Navigating Aerosol Can Management After the Universal Waste Rule Change

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Overview

- Universal Waste Rule Change (New Regulation)
- Implications of the Rule Change
- Applicability
- What's Different Now?
- Aerosol Can Management
- Cost Considerations
- Pros & Cons
- Practical Takeaways
- Common Problems

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What is an aerosol can and what is not?

The rule defines an aerosol can as a non-refillable receptacle that contains a gas (compressed, liquefied, or dissolved under pressure) used to expel a liquid, paste, or powder. **Compressed gas cylinders are excluded from this regulation and require separate disposal methods**.

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New Regulation

- On February 28, 2025, Missouri updated its hazardous waste regulations to add aerosol cans to the state's list of universal wastes.
- This follows EPA's 2019 universal waste final rule that added aerosol cans under 40 CFR Part 273.
- Previously, aerosol cans that were hazardous waste had to be managed under standard hazardous waste generator rules.
- Instead of managing hazardous aerosol cans the same as all other hazardous wastes (with strict accumulation time limits, manifests, etc.), generators in Missouri now have the option to manage them under the universal waste framework, which is significantly simpler.

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Why This Matters (Implications)

- The Household & Commercial Products Association (HCPA) estimates that **3.75 billion** aerosol cans were filled in the United States in 2016 for use by commercial and industrial facilities as well as by households. Aerosol cans can account for nearly 40 percent of retail items that are managed as hazardous waste at large retail facilities.
  (https://www.epa.gov/hw/increasing-recycling-adding-aerosol-cans-universal-waste-regulations)
- Universal Waste is designed to reduce regulatory burden, fewer hoops for generators and better support for recycling and collection.
- This change can save regulated entities time and money; particularly retail, maintenance shops, manufacturers, and facilities that generate aerosol waste routinely; by relaxing some of the stricter RCRA requirements that applied before.

Who This Applies To (Covered Entities)

- The rule applies to regulated facilities generating aerosol cans that meet the definition of universal waste under Missouri's regulations. That includes:
  - Businesses (retail, industrial, institutional) producing waste aerosol cans
  - Municipalities and local government facilities
  - Schools and other organizations that generate aerosol cans as part of their operations
- Universal waste handler classification applies, i.e. small vs. large handler, depending on how much universal waste (all universal wastes combined) is on site (5,000 kg threshold).
- *It does not apply to household waste aerosol cans* which are not regulated as hazardous or universal waste under RCRA/Missouri. Homeowners can dispose of them with household trash unless local rules say otherwise.

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What's Different Now? Key Regulatory Shifts

- Before (Pre-2025 Missouri)
  - Hazardous aerosol cans were subject to full hazardous waste rules:
    - Hazardous waste determinations on each can
    - Hazardous waste accumulation time limits (e.g., 90 days for LQGs)
    - Hazardous waste manifests and transporter requirements

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What's Different Now? (Continued)

- After (Post-2025 Universal Waste Adoption)
  - Generators can choose to manage aerosol cans as universal waste rather than as conventional hazardous waste. Main differences include:
    - Simpler storage/labeling
    - Longer on-site accumulation
    - Shipping/Transport:
    - Puncturing allowed (with rules)
      - Puncturing/unloading cans on site is allowed under universal waste if you:
        - Have a device designed for that function
        - Maintain a written puncturing plan
        - Recycle punctured cans as scrap metal
        - Manage any residues per hazardous waste rules
    - Recycling incentive
      - Empty or punctured aerosol cans recycled as scrap metal are exempt from many hazardous waste requirements under 40 CFR 261.7

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How people can manage aerosol cans under the new rule

- On-site Management
  - Designate a universal waste area, keep cans protected from release
  - Label containers appropriately
  - Accumulate up to 1 year
  - Train employees on handling and emergency procedures per universal waste requirements
  - Puncturing is optional but regulated (written plan + safe equipment)
- Off-site Handling
  - Common carriers under universal waste rules can be used instead of hazardous waste transporters.
  - If residues from puncturing are hazardous, handle them under normal hazardous waste requirements.
- Tips
  - Do not dispose of aerosol cans to the environment; universal waste still must be kept out of landfills except according to proper rules.
  - Residues or collected propellants that cannot be reused must be evaluated for hazardous waste and managed accordingly.
  - Punctured cans must be recycled according to the rule.

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Puncturing Equipment

These are examples of aerosol can puncture devices; there are many others.

The department does not endorse any products or manufacturers.

(Photo 1, Left) https://americangasproducts.com/product/aerosol-can-emitor/?srsltid=AfmBOoqYsfdBs7UluvgFXpiOSoEhLfWIpJvWYyzHaEeqgOdDPnbpZQdc
(Photo 2, Right) https://www.ramflat.com/shop/aerovent/aerovent-units/aerovent-3x-aerosol-can-disposal-system-aerovent-10004721/

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Cost Considerations – Why this can save money

- Potential lower disposal costs (more recycling options vs. hazardous waste TSDF disposal)
- Reduced transportation costs (universal waste vendors/shipments often cheaper than hazardous waste)
- Less administrative burden (typically no hazardous waste manifesting)
- Reduced compliance labor (simpler handling and accumulation standards vs full RCRA hazardous waste rules)

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Implementation Benefits for Generators

- Eases regulatory burden by shifting aerosol cans from hazardous waste requirements to universal waste standards
- Reduces risk of violations (simpler labeling/management requirements)
- May reduce generator status impact by lowering hazardous waste totals counted toward SQG/LQG thresholds
- Encourages recycling and proper collection
- Allows consolidation of shipments
- Streamlines facility operations

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Who Will Benefit the Most?

- Facilities generating high volumes of aerosol cans (maintenance shops, manufacturing, fleets, schools, hospitals)
- Sites near SQG/LQG thresholds (reducing counted hazardous waste volume)
- Facilities currently paying for hazardous waste manifesting and disposal of aerosol cans
- Operations that can accumulate and ship in bulk to reduce transportation costs.

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Who Will Not Benefit?

- Very low-volume generators would have minimal cost savings
- Facilities already puncturing/draining cans (liquids/filters may still require hazardous waste management)
- Corporate safety policies limiting storage regardless of regulatory flexibility

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Practical Takeaways

- *Before this rule*: generators had to navigate applicable hazardous waste regulations.
- *Now*: They can elect to manage them under universal waste; easier storage, labeling, accumulation, transport, and recycling, while still preventing releases and protecting safety.
- This change does not reduce cradle to grave responsibility of generators or handlers but rather provides streamlined management options for the wide variety of industries which utilize aerosol can products within their work.

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Common Problems with Generators

"The 90–180-day Clock Problem" (Large and Small Quantity Generators)

- Small and large quantity generators often lose track of aerosol cans mixed into general hazardous waste streams. Once they're classified as hazardous waste, the 90-day accumulation clock (LQG) or 180-day clock (SQG) starts ticking immediately.
- What happens in reality:
  - Cans sit in maintenance shops for months "waiting to fill a drum"
  - Staff forget they are regulated as hazardous waste
  - Inspection finds expired accumulation times, which constitutes a violation

How Universal Waste Characterization Helps:

- No 90-day/180-day hazardous waste clock
- Facilities can accumulate up to 1 year
- Reduces rushed shipping just to meet a regulatory deadline

Bottom Line: less administrative pressure and fewer accidental time-limit violations.

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Common Problems (Continued)

"Mixed Waste Confusion in Maintenance Shops"

- Maintenance crews throw away *empty spray paint cans, partially full degreasers, or unknown aerosol products* into the same drum labeled "hazardous waste".
- Then:
  - Waste determination becomes difficult
  - Profiles get rejected by vendors
  - Drum gets reclassified or repackaged, which equals more cost and delay

How Universal Waste Characterization Helps:

- Aerosol cans can be segregated into their own universal waste stream
- No need to over-analyze every individual can for full RCRA classification upfront.
- Simplifies waste stream segregation at the source.

Bottom Line: cleaner waste streams, fewer rejected shipments, and less labelling confusion.

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Common Problems (Continued)

"Full Can Liability Fear" (Even When They're Mostly Empty)

- Facilities are often unsure how to handle *"Empty" aerosol cans that still hiss, partially full cans that can't be safely drained*, or *cans with unknown propellants or residues*.
- As a result:
  - Staff hesitate to throw them away properly
  - Cans pile up in maintenance cages or storage closets
  - Or worse; someone illegally disposes of them in trash.

How Universal Waste Characterization Helps:

- Creates a clear, dedicated management pathway
- Allows intact accumulation without guessing "RCRA empty" status every time
- Option for controlled puncturing under a defined program.

Bottom Line: removes uncertainty that drives noncompliance or hoarding.

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Common Problems (Continued)

"Costly Hazardous Waste Profiling for Low-Risk Material"

Aerosol cans often get swept into hazardous waste characterization programs, such as *lab analysis or vendor profiling or waste code assignment and* maintain higher disposal costs due to hazardous classification assumptions.

- Even when most cans are:
  - Non-reactive
  - Recyclable metal
  - Low hazard once managed properly

How Universal Waste Characterization Helps:

- Removes need for repeated hazardous waste profiling for most aerosol cans
- Shifts focus to management standards instead of chemical characterization
- Enables recycling streams (scrap metal recovery)

Bottom Line: cuts unnecessary analytical burden and disposal costs.

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Common Problems (Continued)

"Bulky Storage and Housekeeping Issues"

- Aerosol cans can accumulate in maintenance cages, janitorial closets, paint rooms, or satellite accumulation areas.
- Because disposal is complicated, they tend to:
  - Sit longer than intended
  - Clutter workspaces
  - Create potential fire load concerns (pressurized containers)

How Universal Waste Characterization Helps:

- Encourages routine collection and scheduled removal
- Easier consolidation into one managed waste stream
- More frequent recycling pickups instead of long-term storage

Bottom Line: improves housekeeping and reduces clutter-driven safety risks.

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Closing

- The universal waste designation for aerosol cans doesn't change the fact that they are regulated waste, it changes the friction in how facilities manage them. The biggest impact is reducing administrative complexity, improving source segregation, and making recycling the default path instead of disposal.

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Questions?

Sources/Regulatory Citations

- **Missouri Regulations (CSR)**
  - 10 CSR 25-16.273 – *Standards for Universal Waste Management*
  - 10 CSR 25-4.261(1) – *Incorporates 40 CFR 261.7, HW in empty containers*
  - 10 CSR 25-5.262(1) – *Incorporates 40 CFR 262.11, HW determination*

- **Federal Regulations (CFR)**
  - 40 CFR Part 273 – *Standards for Universal Waste Management*
    - 40 CFR 273.9 – *Definitions*
    - 40 CFR 273.13(e) – *SQ handler standards for aerosol cans*
    - 40 CFR 273.33(e) – *LQ handler standards for aerosol cans*
    - 40 CFR 273.14(f) – *Labeling/marking requirements for aerosol cans*
    - 40 CFR 273.15 – *Accumulation time limits*

- **Missouri Guidance / Implementation Reference**
  - Missouri Department of Natural Resources – *Aerosol Cans (PUB1084)*

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