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U. S. Environmental Protection Agency
EPA Docket Center
Docket ID No. EPA-HQ-OLEM-2017-0463
Mail Code 28221T
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Attention: Docket ID No. EPA-HQ-OLEM-2017-0463

Dear Sir or Madam:

The Northeast Waste Management Officials' Association (NEWMOA) appreciates the opportunity to comment on the "Increasing Recycling: Adding Aerosol Cans to the Universal Waste Regulations" as published in the *Federal Register* (March 16, 2018). The comments outlined below represent a consensus of NEWMOA's members. Some of the members plan to submit additional comments.

Overall Comment: NEWMOA's members generally support the concept of adding aerosol cans to the universal waste rule. Our members believe that the universal waste regulatory framework is appropriate for the collection and management of hazardous waste aerosol cans.

The States of Connecticut, Maine, New Hampshire, New Jersey, New York, Rhode Island, and Vermont offer the following comments and recommendations to improve and clarify this proposed rule for EPA's consideration.

- 1. Request:** Destination facilities that recycle universal waste and that do not store that universal waste prior to recycling in accordance with 40 CFR 261.6(c)(2) may be exempt from permitting under federal regulations. NEWMOA recommends that EPA provide guidance on the period of time that a destination facility may stage aerosol cans before a RCRA storage permit would be federally required.
- 2. Page 11655, 3rd column, last paragraph. The preamble states: "Note that the expected cost savings is based on the assumption that all eligible states would adopt regulatory changes, once they are finalized. EPA requests comment on this assumption."**

- Given that the rule is optional, it is unlikely that all eligible states will adopt it. Perhaps EPA should determine the percentage of states that have adopted other optional universal waste regulations to obtain a more realistic estimate of the economic impact of the proposed rule.
3. **Page 11656, 1st column, last paragraph. The preamble states: “However, when aerosol cans are mismanaged, particularly when exposed to excessive heat, the resulting increase in internal pressure can reach a point beyond the design strength of the can, thereby causing it to burst and release its contents. At the point of bursting, the contents of the can have been heated to a temperature and pressure far above ambient environmental conditions, causing the contents to rapidly vaporize and be forcefully released. One or more of the following may occur when a can bursts as a result of over-heating: (1) If the propellant or product are ignitable, the contents of the can may readily catch fire as they are released and exposed to atmospheric oxygen, creating a rapidly burning vapor “fireball”; (2) the bottom of the can may detach as a result of a manufacturing defect or an external force, causing the upper part of the can to become a projectile; or (3) the can may fragment as it bursts, releasing metal shards.”**
- EPA should state in its final rule whether these scenarios meet the definition of reactivity, and aerosol cans should, therefore, be considered reactive under normal conditions or only when mismanaged. This question has been debated by regulators and the regulated community at length, and a clear EPA position would help generators and handlers make accurate and consistent waste determinations.
 - The rule should include clearer and more specific safety measures to prevent the types of reactions described in the preamble (e.g., not storing in excessive heat or with other materials that may cause a reaction).
4. **Page 11656, 3rd column, last paragraph. The preamble states: “Hazardous waste aerosol cans that contain pesticides are also subject to the requirements of (the) Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), including compliance with instructions on the label. *In general, the statement on aerosol pesticide product FIFRA labels prohibits the puncturing of cans.*” (emphasis added) That section of the preamble goes on to discuss a 2004 EPA determination “...that puncturing aerosol pesticide containers is consistent with the purposes of FIFRA and is therefore lawful pursuant to FIFRA... provided certain conditions are met...”**
- While EPA has determined that puncturing of aerosol pesticide containers is lawful, it should explain further in the final rule preamble why FIFRA labels (“in general”) state that puncturing is prohibited.
 - Since there is also a universal waste category for waste pesticides, in its final rule EPA should address whether a handler can manage that waste under the less stringent provisions of the aerosol can requirements or if they must meet the provisions of both.

5. **Page 11658, 2nd column, end of 1st paragraph. The preamble states: “A summary of how the criteria in 40 CFR 273.81 apply to aerosol cans is described below. EPA solicits comment on this analysis.”**

Page 11658, 3rd column, 4th paragraph. The preamble states: “5. Risks Posed by the Waste During Accumulation and Transport Should Be Relatively Low Compared to the Risks Posed by Other Hazardous Waste, and Specific Management Standards Would Be Protective of Human Health and the Environment During Accumulation and Transport (40 CFR 273.81(e))”

Page 11658, 3rd column, 5th paragraph, second sentence. The preamble goes on to state: “As long as they remain intact, therefore, EPA expects that hazardous waste aerosol cans would present a lower risk as compared to other types of hazardous waste that are not contained as-generated under normal management conditions. In addition, the ignitability risk posed during accumulation and transport is addressed by standards set by the Department of Transportation, Office of Safety and Health Administration, and local fire codes. These standards include requirements for outer packaging and can design, including limits on the amount of flammable gas and general pressure conditions. Finally, as discussed below, the proposed management standards for aerosol cans that are punctured and drained at the handler would address the ignitability risk, and help prevent releases, and thus EPA believes that the risks posed by the activities proposed are addressed by the universal waste designation.”

- EPA should include additional standards in its final rule for shipping and accumulation of universal waste aerosol cans designed to minimize the potential for mixing incompatible wastes and causing a reaction. While measures are being taken to prevent waste from leaving the aerosol can, some leakage will be inevitable. NEWMOA suggests *requiring* separation of incompatible wastes rather than *allowing* separation. NEWMOA also recommends requiring that storage areas meet temperature requirements that would reduce the likelihood of a strong reaction.
 - While NEWMOA agrees with having the management standards codified, EPA needs to add language to clarify that after an aerosol can is punctured, it can no longer be managed as universal waste. For hazardous waste generators, management of the removed product and/or propellant should be addressed to clarify that this subsequent management is not part of universal waste handling. Most SQGs and LQGs will only be handling their own waste aerosol cans and not those received from off-site. If EPA’s intent is to allow generators to manage their own waste aerosol cans as universal waste on-site prior to puncturing and making determinations on the separate waste streams generated by puncturing, this should be made explicit in the rule.
6. **Page 11660, 1st column, 2nd paragraph. The preamble states: “EPA also intends this definition to be limited to sealed containers whose intended use is to dispense a material by means of a propellant or compressed gas. Aerosol cans are designed to contain those materials until they are intended for release and to present minimal**

risk during normal storage and transport. Other types of containers, including compressed gas canisters and propane cylinders, present a greater risk than aerosol cans and would not be included.”

- If this is the intention, it should be clearly stated in the final regulation, not just as part of the preamble. The proposed definition leaves room for interpretation and the intent stated in the preamble to limit the definition to specific sealed containers is therefore unenforceable.

7. Page 11660, 1st column, 3rd paragraph. The preamble states: “EPA requests comment on whether to include a size limit of twenty-four ounces or other type of limitations on the types of aerosol cans that would be eligible for the federal universal waste rule, including any information on how such a limit would be necessary to ensure safe management of aerosol cans. EPA also requests comment on the appropriate scope of the definition of “aerosol can” and the types of materials that should fall under it.”

- NEWMOA supports a size limit, and either a 24 ounce or 1-liter limit would be appropriate, in our opinion. The 49 CFR 172.101 Hazardous Material Table identifies five categories of aerosol cans, and for each category, specifies “each not exceeding 1 L capacity.” While “typical” aerosol cans are not large, any size could fall within the proposed definition. An example of such product containers are the large spray foam containers (generally 2- to 4-gallon capacity) that may be purchased from home improvement stores; according to a Vermont solid waste district manager, these containers are extremely expensive to dispose of due to their CFC content (approximately \$375 per container disposal cost).
- NEWMOA also strongly encourages adding language to the final rule to limit applicability to “manufactured” aerosol cans. A quick internet search produces videos of “homemade” aerosol cans as well as hand-pump pesticide applicators, which both meet the proposed definition.
- A revised definition might state: “...means an intact container, that is a manufactured product not to exceed 1 L capacity, in which gas under pressure is used to aerate and dispense any material through a valve in the form of a spray or foam.”

8. Page 11661, first column, 3rd paragraph. The preamble states: “EPA is proposing that puncturing and draining activities must be conducted by a commercial device specifically designed to safely puncture aerosol cans and effectively contain the residual contents and any emissions thereof.”

- What does “effectively contain” mean with respect to emissions, and how is that to be evaluated by handlers and inspectors? NEWMOA recommends that EPA address these questions in the final rule.

9. Page 11661, second column, 2nd paragraph. The preamble states: “...the Agency has previously investigated the performance of at least one aerosol can puncturing and

draining device through EPA’s Environmental Technology Verification (ETV) program. The ETV review demonstrated one type of drum-top puncturing and draining system was effective in processing at least 187 cans before breakthrough of volatile of volatile chemicals occurred, which was significantly less than the 600 – 750 cans recommended by some manufacturers. The drum that contained the drained liquid from the aerosol cans was also never more than 25% full before breakthrough occurring. These findings were contrary to manufacturer recommendations of ensuring the container is not filled past 70% full in order to avoid breakthrough... In addition, the ETV program found that halogenated compounds (e.g., chlorinated solvents) were found to be incompatible with the seal and gasket materials.”

- Based on this discussion, as well as anecdotal information about the wide range of puncturing and draining devices currently available on the market (one Vermont solid waste district manager stated that they have examined devices ranging in cost from \$700 to \$16,000), the only certain ways to ensure that puncturing and draining activities are *containing* emissions are to either implement an air monitoring program with recordkeeping requirements or ensure that the devices used are equipped with “end of life” filters that show when breakthrough is occurring.

10. Page 11661, last column and sentence. The preamble states: “EPA is requesting comment on establishing additional regulatory requirements for can draining devices and limits on aerosol cans that may pose compatibility problems and that may be punctured and drained under the proposed rules.”

- NEWMOA suggests adding language to clarify that once a can has been punctured, neither the can nor the collected contents remain universal waste. The handler has generated at least two distinct waste streams and must make accurate hazardous waste determinations on both. Moreover, if the contents from different types of cans are mixed in the same collection container, a more complicated determination will result. And since the contents of various types of containers are likely to be combined, the ultimate waste determination is more likely to be inaccurate unless EPA emphasizes this point.
- In the preamble, while EPA proposes that puncturing and draining activities must be conducted using a commercial device, this language does not carry through to the definition. If not specifically stated, this opens the door to “homemade” devices which would not have the instructions, recommendations, safety testing, and testing on emissions capture that NEWMOA believes are necessary to protect human health and the environment. As such, NEWMOA recommends revising the proposed definition as follows: “Conduct puncturing and draining activities using a *commercially-manufactured* device specifically designed to safely puncture aerosol cans and effectively contain the residual contents and any emissions thereof.”

- Finally, NEWMOA recommends requiring that a maintenance record be kept to document maintenance activity (including filter changes) and monitoring for breakthrough (that, at a minimum, are consistent with the manufacturer's recommendations). NEWMOA also recommends that a record be kept documenting the contents of punctured/drained cans to demonstrate that incompatibles have not been mixed and to help facilitate proper waste determinations.

11. Page 11662, 1st column, 2nd paragraph. The preamble states: "EPA is requesting comment on limiting puncturing and draining practices to handlers that are not commercial processors (i.e., a person that processes aerosol cans received from other entities in exchange for compensation)."

- NEWMOA recommends that the term "commercial processors" be defined in the final rule. Based on the parenthetical statement, it is not clear how one distinguishes a "commercial processor" from any handler who punctures/drains aerosol cans since most handlers are compensated for receiving (and managing) universal wastes from other entities.
- It should also be noted that while large scale "commercial processors" may be managing larger quantities of cans and a wider variety of materials, they are more likely to be using more sophisticated puncturing/draining equipment than generators, SQHs or even LQHs, especially if the commercial processor is a permitted TSDF. Such processors are also more experienced with and knowledgeable about the abilities and limits of that equipment. Larger processors are also more likely to be familiar with the universe of materials in aerosol cans and which of those materials are incompatible and which materials may have an adverse impact on the seals/gaskets of puncturing/draining equipment.
- It should be clear that generators may continue to puncture and drain their own on-site generated aerosol cans under 40 CFR 262 as generator treatment in a tank or container.
- It should be clear that a destination facility can puncture and drain aerosol cans received from off-site if it's a recycling facility that doesn't store (number of days need to be determined, see comment 1).
- It is NEWMOA's understanding that, as currently proposed, SQHs and LQHs can puncture and drain aerosol cans received from off-site if they do not accept compensation for their services. What is EPA's logic for allowing SQHs and LQHs to puncture and drain aerosol cans received from off-site while not being subject to regulation as a destination facility? NEWMOA encourages EPA to require that aerosol cans received from other entities only be punctured and drained at destination facilities.
- Since the term "commercial processor" is neither defined nor used in the proposed rule, is it EPA's intent to regulate facilities that accept compensation for aerosol cans received from off-site for puncturing and draining as destination facilities

only? Is compensation the only difference between allowing SQHs and LQHs to puncture and drain aerosol cans received from off-site versus a destination facility?

- NEWMOA would encourage EPA to require that destination facilities vent to an air pollution control device that discharges to the atmosphere.

12. **Page 11666, 273.13(e)(1)/Page 11667, 273.33(e)(1). The proposed regulations state: “Universal waste aerosol cans must be accumulated in a container that is structurally sound, compatible with the contents of the aerosol cans and lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.”**

- Since aerosol cans may contain a wide array of products, NEWMOA believes the accumulation requirements for SQHs and LQHs should be revised to specify that waste aerosol cans containing incompatible materials should not be accumulated in the same container.

13. **Page 11666, 273.13(e)(3)/Page 11667, 273.33(e)(3). The proposed regulations state: “A (small/large) quantity handler who punctures and drains their aerosol cans must recycle the empty punctured aerosol cans...”**

- It should be noted that scrap metal recycling is not universally available. If recycling is not available in an area, does that mean that puncturing/draining of aerosol cans is not an option in that location? There needs to be further discussion of this requirement in the preamble of the final rule.

14. **Page 11666, 273.13(e)(3)(ii)/Page 11667, 273.33(e)(3)(ii). The proposed regulations state: “Establish a written procedure detailing how to safely puncture and drain (a) universal waste aerosol can (including proper assembly, operation and maintenance of the unit, segregation of incompatible wastes, and proper waste management practices to prevent fires or releases) ...”**

- Not only should EPA establish a written procedure, NEWMOA recommends adding the words “and follow” so the revised requirement would read: “Establish and follow a written procedure detailing how to safely puncture....”
- NEWMOA also recommends revising this requirement as follows: “...safely puncture and remove the contents from universal waste aerosol cans and ensure the capture and containment of all resulting liquid and gaseous waste materials.”
- The rule should also require that the written procedure address prevention of filter breakthrough, ensuring compatibility of commingled liquids, and ensuring the compatibility of the contents of punctured cans with the puncturing and draining equipment. In addition, NEWMOA believes that EPA should prohibit the comingling of incompatible liquids when puncturing aerosol cans.

15. **Page 11666, 273.13(e)(3)(iii)/Page 11667, 273.33(e)(3)(iii). The proposed regulations state: “Ensure that puncturing of the cans is in a manner designed to prevent fires and to prevent the release of any component of universal waste to the environment. This includes, but is not limited to, locating the equipment on a solid, flat surface in a well ventilated area.”**

- The proposed regulation 273.13/33 (e)(3) allows handlers to puncture aerosol cans provided they “effectively contain the residual contents and any emission thereof.” This implies that all hazardous waste gases will be collected or captured during the activity. If so, why must puncturing equipment be located in a well-ventilated area? NEWMOA requests that EPA clarify this point in the final rule.
- NEWMOA also encourages EPA to require that puncturing and draining equipment be vented to an air pollution control device that discharges to the atmosphere.

NEWMOA is a non-profit, non-partisan interstate association that was established by the governors of the New England states as an official interstate regional organization, in accordance with Section 1005 of the federal Resource Conservation and Recovery Act (RCRA), to coordinate in interstate hazardous and solid waste activities. The organization was formally recognized by the U.S. EPA in 1986. NEWMOA membership is composed of the state environment agency programs that address pollution prevention, toxics use reduction, sustainability, materials management, hazardous waste, solid waste, emergency response, waste site cleanup, underground storage tanks, and related environmental challenges in Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont. NEWMOA provides a strategic forum for effectively solving environmental problems through collaborative regional initiatives that advance pollution prevention and sustainability, promote safer alternatives to toxic materials in products, identify and assess emerging contaminants, facilitate adaptation to climate change, mitigate greenhouse gas sources, promote reuse and recycling of wastes and diversion of organics, support proper management of hazardous and solid wastes, and facilitate clean-up of contaminant releases to the environment. For more information on NEWMOA, visit www.newmoa.org.

NEWMOA appreciates your consideration of the concerns and suggestions outlined in this letter. Terri Goldberg, NEWMOA’s Executive Director, will be happy to discuss next steps. She can be reached by email (tgoldberg@newmoa.org) or by telephone (617-367-8558 x302).

Sincerely,



Charles Schwer, VT DEC
NEWMOA 2018 Chair