



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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OFFICE OF  
SOLID WASTE AND  
EMERGENCY RESPONSE

NOW THE  
OFFICE OF LAND AND  
EMERGENCY MANAGEMENT

**MEMORANDUM**

**SUBJECT:** Recalled Takata Airbag Inflators

**FROM:** Barnes Johnson, Director  
Office of Resource Conservation and Recovery

**TO:** Regional RCRA Division Directors  
Regional Enforcement Division Directors  
Regional RCRA Branch Chiefs

This memorandum discusses how the Resource Conservation and Recovery Act (RCRA) regulations apply to recalled Takata airbag inflators that are subject to the 2015 Preservation Order issued by the U.S. Department of Transportation (DOT).<sup>1</sup> These airbag inflators have been recalled as a result of defects that may cause them to deploy improperly. The U.S. Environmental Protection Agency's (EPA's) Office of Resource Conservation and Recovery (ORCR) has collaborated internally with other EPA offices including the Office of General Counsel, the Office of Enforcement and Compliance Assurance, Region 5, and Region 7. ORCR has also collaborated externally with DOT, the U.S. Bureau of Alcohol, Tobacco, Firearms, and Explosives (BATF), the Michigan Department of Environmental Quality, and the Missouri Department of Natural Resources (MDNR) to gather information and consider how the RCRA hazardous waste regulations may apply.

**EPA Finding**

Based on our understanding of the facts, we have concluded that the recalled Takata airbag inflators are not subject to RCRA Subtitle C regulatory requirements while they are being held under the 2015 DOT Preservation Order. This is because EPA does not consider airbag inflators or other explosives to be "discarded" and therefore subject to the hazardous waste regulations while they are being stored pending judicial proceedings or investigations.<sup>2, 3</sup> At the point the inflators are released from the DOT Preservation Order and other legal action related to the recall, the recalled airbag inflators would be considered solid waste and subject to a hazardous waste determination and any applicable RCRA

<sup>1</sup> See the [DOT's Preservation Order](#).

<sup>2</sup> U.S. EPA, [Commercial Chemical Products Used in Air Bags – Effect on Recycle of Ferrous Scrap from Automobiles](#), January 16, 1985, RCRA Online Number 12363.

<sup>3</sup> U.S. EPA, [Regulatory Status of Undeployed Automotive Airbag Inflators](#), April 23, 1992, RCRA Online Number 11666.

regulations.<sup>4</sup> Additionally, airbag inflators subject to the DOT Preservation Order that are not managed and stored in a manner that prevents release to the environment may be considered a solid waste and a hazardous waste under sections 3007, 3013, and 7003 of RCRA.

#### Past Guidance

EPA has previously provided guidance on airbags in two letters in response to specific questions from the regulated community. However, the clarifications provided in those letters are not directly applicable to the current situation with recalled Takata airbags. To clarify, EPA issued a signed letter in 1985 stating that airbag inflators containing both sodium azide and oxidizers are not “commercial chemical products” for purposes of determining whether a solid waste is a listed hazardous waste under RCRA.<sup>5</sup> As explained in more detail in the letter, sodium azide is not the sole active ingredient, and therefore the sodium azide hazardous waste listing does not apply. The 1985 letter focused on the application of the RCRA hazardous waste listings and did not address hazardous waste characteristics. Airbag inflators, including the recalled Takata airbag inflators, are no longer manufactured with sodium azide, so this 1985 letter does not apply to the Takata inflators. In a second letter signed in 1992, EPA stated that airbag inflators that fail quality control testing during manufacture are considered off-specification commercial chemical products (for purposes of the regulatory definition of solid waste) and concluded that they are not solid wastes when reclaimed off-site for their metal content.<sup>6</sup> The Takata airbags that have been sold and installed in a vehicle would be considered “used” (i.e., spent materials) for purposes of these regulations, so the guidance in the 1992 letter would not apply to the Takata airbag inflators and they would be solid waste when reclaimed (261.2(c)(3)).

#### Background

Airbag inflators utilize propellants for rapid response to an auto accident. When an automobile detects an impact, an electric spark ignites the solid propellant in an airbag inflator, resulting in the rapid inflation of the airbag as the solid propellant is converted to a gas. Due to the reactive nature of the propellant component and the presence of oxidizers, undeployed airbag inflators would be considered reactive and ignitable characteristic hazardous waste when discarded.

In 2015, the U.S. Department of Transportation’s National Highway Traffic Safety Administration (NHTSA) announced a national recall of 32 million Takata airbag inflators made with ammonium nitrate propellant through a Consent Order, Coordinated Remedy Order, and Preservation Order issued to Takata. On May 4, 2016, the Consent Order was amended and the recall was expanded to include approximately 66 million Takata airbag inflators. So far, 11 deaths and over 150 injuries in the U.S. have been linked to defective airbags. The DOT Consent Order requires the phase-out of ammonium nitrate propellant-containing airbag inflators in the United States. The Coordinated Remedy Order prioritizes the replacement of airbag inflators in vehicles based on climatological risk factors. The Preservation Order requires Takata to ensure that recalled and returned inflators are preserved in unaltered form, except for certain testing.

Because the DOT Preservation Order requires Takata to hold the recalled airbag inflators for testing and litigation purposes, EPA has determined that the airbag inflators have not yet been discarded. Once the inflators are released from the DOT Preservation Order and other legal action related to the recall that

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<sup>4</sup> As explained later in this memorandum, EPA considers the inflators, if discarded, to be a hazardous waste because they generally meet both the reactivity and ignitability hazardous waste characteristics.

<sup>5</sup> See footnote 2.

<sup>6</sup> See footnote 3.

requires the inflators to be held as evidence, the recalled airbag inflators are solid waste (this is the point of generation) and subject to a hazardous waste determination since the airbag inflators cannot be reused. This conclusion is consistent with prior EPA interpretations in similar scenarios.<sup>7,8</sup>

In the case of undeployed Takata airbag inflators, EPA considers discarded gas-generating-propellant airbag inflators<sup>9</sup> to exhibit the characteristic of reactivity, waste code D003 (40 CFR 261.23(a)(6)) and airbag inflators containing an oxidizer to exhibit the characteristic of ignitability, waste code D001 (40 CFR 261.21(a)(4)). Takata, as the hazardous waste generator, would be obligated to meet RCRA hazardous waste generator requirements, including the 90-day accumulation limits for large quantity generators or 180-day accumulation limits for small quantity generators depending on the applicable generator category.<sup>10</sup> Storage of hazardous waste for longer than the generator accumulation limits would require a RCRA storage permit.<sup>11</sup>

In certain circumstances, the metal parts of the airbag inflators may be recycled for scrap metal after they are deployed. Deployment of airbag inflators is considered treatment of a hazardous waste and may require a permit if RCRA exemptions and exclusions do not apply.<sup>12</sup> For example, incineration requires a RCRA permit regardless of future materials reclamation.<sup>13</sup> Many of these determinations on recycling and treatment are site- and case-specific, and EPA recommends that Takata—and other entities that Takata may send the airbags to—work with the appropriate authorized state authority as well as EPA to make these determinations.

Please forward this memorandum to your states. If you have any questions about this topic, please contact Jessica Young of my staff at [young.jessica@epa.gov](mailto:young.jessica@epa.gov) or by phone at 703-308-0026.

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<sup>7</sup> See, for example, [\*Explosives Presenting an Immediate Safety Threat and Explosives Stored During Analysis\*](#), August 11, 1988, RCRA Online Number 11363. This letter states that seized fireworks being held as evidence are not solid wastes.

<sup>8</sup> Also see U.S. EPA, [\*Management of Aircraft Remains from Catastrophic Loss Events\*](#), January 6, 2014, RCRA Online Number 14881. This letter states that materials playing an integral part in an ongoing National Transportation Safety Board (NTSB) investigation are not waste.

<sup>9</sup> EPA did not evaluate compressed gas airbag inflators at this time, so separate considerations may apply.

<sup>10</sup> 40 CFR Part 262 describes the hazardous waste generator regulations, including allowable accumulation quantities for each generator category and safe management standards such as training requirements, container standards, and emergency planning.

<sup>11</sup> If a generator exceeds the applicable accumulation time limits or fails to meet the other safe management conditions, the generator could become subject to violations and penalty fees for operating as a RCRA storage facility without a permit.

<sup>12</sup> See U.S. EPA, [\*Treatment – Two Parts to Definition\*](#), January 1, 1990, RCRA Online Number 13346. This document describes the definition of treatment.

<sup>13</sup> U.S. EPA, [\*Regulatory Determination of the Primer Neutralization Unit "Popping Furnace"\*](#), September 19, 1994, RCRA Online Number 11873. This document describes the RCRA regulatory status of hazardous waste popping furnaces to be incinerators.