

Date of Hearing: April 29, 2025

**ASSEMBLY COMMITTEE ON ENVIRONMENTAL SAFETY AND TOXIC MATERIALS**

Damon Connolly, Chair

AB 998 (Hadwick) – As Amended April 10, 2025

**SUBJECT:** Household hazardous waste

**SUMMARY:** Authorizes a school to transport and manage confiscated vape pens as household hazardous waste (HHW). Authorizes a HHW collection facility to disassemble HHW, including separating batteries, valves and electronic components. Specifically, **this bill:**

- 1) Requires the Department of Toxic Substances Control (DTSC), in collaboration with the Department of Resources Recycling and Recovery (CalRecycle), to develop a consolidated reporting document for HHW collection facilities to submit a single annual report to both DTSC and CalRecycle for purposes of complying with existing applicable reporting requirements for HHW.
- 2) Defines "household hazardous waste" as hazardous waste generated incidental to owning or maintaining a place of residence.
- 3) Provides that a vape pen confiscated by a school as contraband shall be presumed to have been generated by a household and shall not lose its status as HHW when properly managed and disposed of at a household hazardous waste collection facility or through a household hazardous waste collection program.
- 4) Defines "school" as both of the following:
  - a) A public school, including a charter school, or a private school that serves pupils in kindergarten or any of grades 1 to 12, inclusive; or,
  - b) A local educational agency, as defined in Section 56026.3 of the Education Code.
- 5) Defines "vape pen" as an electronic device that is powered by one or more removable or embedded batteries and that delivers solely, or a combination of, nicotine, cannabis, or other vaporized liquids to the person inhaling from the device, including, but not limited to, an electronic cigarette, cigar, pipe, or hookah.
- 6) Authorizes a school or its contractor, including a registered hazardous waste transporter transporting vape pens confiscated as contraband at a school facility, to transport vape pens to a HHW collection facility.
- 7) Authorizes, a HHW collection facility to conduct physical treatment activities involving the disassembly of HHW to separate batteries, valves, electronic components, and other parts containing liquids or gases, including, but not limited to, the disassembly of vape pens, in a manner that does not result in the unauthorized release of hazardous materials.
- 8) Prohibits a public agency, or its contractor, from including vape pens in a materials exchange program.

**EXISTING LAW:**

- 1) Establishes the federal Resource Conservation and Recovery Act (RCRA) to authorize the United States Environmental Protection Agency (US EPA) to manage hazardous and non-hazardous wastes throughout the wastes' life cycle. (42 United States Code (U.S.C.) § 6901 et seq.)
- 2) Establishes the Hazardous Waste Control Law (HWCL) to authorize the DTSC to regulate the management of hazardous wastes in California. (Health and Safety Code (HSC) § 25100 et seq.)
- 3) Defines "waste" as any solid, liquid, semisolid, or contained gaseous discarded material. (HSC § 25124)
- 4) Defines "hazardous waste" as waste, that, because of its quantity, concentration, or physical, chemical, or infectious characteristics:
  - a. Causes, or significantly contributes to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or,
  - b. Poses a substantial present or potential hazard to human health or the environment, due to factors including, but not limited to, carcinogenicity, acute toxicity, chronic toxicity, bio accumulative properties, or persistence in the environment, when improperly treated, stored, transported, disposed of, or otherwise managed. (HSC § 25141(b))
- 5) Defines "household hazardous waste" as hazardous waste generated incidental to owning or maintaining a place of residence, but does not include waste generated in the course of operating a business at a residence. (HSC § 25218.1(e))
- 6) Establishes that counties and cities will provide services for the collection of HHW and that the state will provide an expedited and streamlined regulatory structure to facilitate the collection of HHW. (HSC § 25218)

**FISCAL EFFECT:** Unknown.

**COMMENTS:**

*Need for the bill:* According to the author, "With the popularity of vaping on the rise, many students are bringing vapes to schools. These products are considered contraband by school officials and, often times, principals have drawers full of vapes that students bring from home. Schools encounter difficulty disposing of these vapes, stemming from uncertainty surrounding proper disposal. AB 998 allows schools to utilize existing Household Hazardous Waste Collection Facilities (HHWCF) to safely recycle vapes and takes the burden off of teachers and school administrators, so they can focus on educating our children. This bill also consolidates reporting requirements that CalRecycle and the CA Department of Toxic Substances Control have on the HHWCF, removing duplicative reporting measures and increasing government efficiency."

*Hazardous waste management:* Hazardous waste is a waste with properties that make it potentially dangerous or harmful to human health or the environment. In regulatory terms, a

waste is hazardous if it appears on a RCRA hazardous wastes list or exhibits one of the four characteristics of a hazardous waste: ignitability, corrosivity, reactivity, or toxicity. However, materials can be hazardous wastes even if they are not specifically listed or do not exhibit any characteristic of a hazardous waste. Hazardous wastes are prohibited from being disposed of in the trash, and must be properly transported and disposed of at permitted treatment, storage, and disposal facilities or at a recycling facility.

*Universal waste:* Universal waste comes primarily from consumer products containing mercury, lead, cadmium and other substances that are hazardous to human health and the environment. These items cannot be discarded in household trash nor disposed of in landfills. Examples of universal waste are batteries, fluorescent tubes, and many electronic devices. Under both state and federal law and regulation, universal wastes are authorized to be managed in a less stringent manner than hazardous waste.

California's Universal Waste Rule allows individuals and businesses to transport, handle, and recycle certain common hazardous wastes, termed universal wastes, in a manner that differs from the requirements for most hazardous wastes. The more relaxed requirements for managing universal wastes were adopted to ensure that they are managed safely and are not disposed of in the trash. The universal waste requirements are also less complex and easier to comply with, thereby increasing compliance.

*HHW collection:* Many common household products are also hazardous, and when these products are discarded, they become "HHW." Common HHW includes, but is not limited to, antifreeze, glue and adhesives, pesticides, used oil, batteries, electronic wastes, and household cleaners. In California, HHW is prohibited from being disposed of in the trash, down the drain, or by abandonment, and must be disposed of through a HHW Program. Most HHW programs are run by local government agencies such as a city or county.

*US EPA guidance to schools and business:* The United States Environmental Protection Agency (US EPA) released guidance to schools and businesses on how to manage e-cigarettes (including vape pens). The guidance states:

"E-cigarettes contain nicotine and lithium batteries, making them hazardous waste under RCRA. Nicotine is acutely toxic. Liquid nicotine in e-cigarettes can be easily absorbed by the skin, potentially causing nicotine poisoning with symptoms that include difficulty breathing, fainting, or seizures. Nicotine can also harm fish and other aquatic organisms. Nicotine e-liquid is an acute hazardous waste with the RCRA hazardous waste code P075 (nicotine, & salts).

Lithium batteries can catch fire, especially when damaged. When placed in trash and recycling bins, lithium batteries often get damaged by trash compactors and can cause fires during transportation and at waste and recycling facilities. Most lithium batteries, when discarded, would likely be considered ignitable and reactive hazardous waste.

Schools and Businesses can safely dispose of e-cigarettes and components by following these three steps:

- 1) Place each individual e-cigarette in a separate clear, sealed plastic bag to prevent the batteries from short-circuiting and catching fire.

- 2) Place each individual lithium battery in a separate clear, sealed plastic bag to prevent the batteries from short-circuiting and catching fire.
- 3) Place nicotine e-liquid vials, cartridges, and pods in a clear, sealed plastic bag. You can combine multiple items in the same bag.

The options that your school or business has for disposing of your hazardous waste depend on how much hazardous waste your school or business generates per calendar month. [US] EPA established three RCRA hazardous waste generator categories - very small, small, and large quantity generators. You must count ALL the hazardous waste that your school or business generates on site in a calendar month – not just the e-cigarettes and e-liquids – in determining your RCRA generator category. Your disposal options will depend on: the RCRA generator category of your school or business, and whether your school or business is a healthcare facility (e.g., retail pharmacy or vape shop) or has an on-site healthcare facility (e.g., nurse's office or clinic)."

*Environmental impacts of disposable vapes:* In the 2023 report, "Vape waste: The environmental harms of disposable vapes," the United States Public Interest Research Group Education Fund states:

"One product stands apart as being particularly harmful to our environment and public health—disposable vapes. Vapes, also known as e-cigarettes, are handheld battery powered electronic devices with heated metal coils that vaporize a liquid containing nicotine or cannabis products, known as e-liquid. Nicotine is the famously addictive stimulant found in tobacco that gives smokers a dopamine hit, and makes quitting difficult. Much has been made of the public health harms of disposable vapes, but this report aims to understand their effects as hazardous electronic waste.

It doesn't make any sense to manufacture electronics with rechargeable batteries, ship them across the world, and throw them out within a few days. Disposable vapes are single-use products powered by the same rechargeable lithium-ion batteries used in electric cars and iPhones. However, unlike traditional vapes, they're designed to be thrown out after use. That's because while some can be recharged with a USB cable, once they run out of the included e-liquid they can't be refilled.

After the Food and Drug Administration's (FDA) February 2020 crackdown on flavored nicotine e-liquid cartridges for reusable vapes, sales of disposable brands increased 196.2% by March 2023, according to the CDC Foundation. The FDA's decision prohibited the sale of flavored pre-filled nicotine vape cartridges exemplified by popular brand JUUL, but didn't mention disposable vapes. This sin of omission created a gray market and by March [2023] sales of disposable products increased to 11.9 million units a month and have overtaken cartridges market share at 53% of vape sales. At this rate, we throw out 4.5 disposable vapes per second.

Electronic waste produced from disposable vapes includes both the circuit boards and lithium ion batteries that power the device. These boards contain some of the heavy metals mentioned above, which can leach into the groundwater. Due to the nicotine e-liquid used in

these products, vape waste can't be recycled with other plastics because the substance is defined by the [US] EPA as an acute hazardous waste."

*Interaction with federal law/regulation:* AB 998 provides that a vape pen confiscated by a school as contraband shall be presumed to have been generated by a household and shall not lose its status as HHW when properly managed and disposed of at a HHW collection facility. However schools are not classified as a "household" under federal regulation (40 CFR 261.4 (b)(1)). Therefore the authorization for schools to treat vape pens as HHW could be in conflict with federal regulations. The author and proponents are aware of this potential conflict and are communicating with the US EPA. This potential conflict should be resolved before this bill is sent to the Governor.

*This bill:* AB 998 authorizes schools to take vape pens, confiscated at the school, to a HHW collection facility. The overall goal of the bill is to help schools safely and conveniently dispose of vape pens confiscated at their school. This bill authorizes a HHW collection facility to conduct specified physical treatment: separating batteries, valves and electronic components of vape pens. Lastly, this bill requires DTSC and CalRecycle to develop one uniform household hazardous waste collection reporting form. Currently, DTSC and CalRecycle each have their own HHW reporting form and AB 998 seeks to consolidate this to simplify reporting for HHW collection facilities.

*Arguments in support:* According to the Rural County Representatives of California, "Assembly Bill 998 seeks to reduce regulatory barriers and program implementation costs for local HHW collection facilities. It also provides another regulatory pathway for schools to safely manage vapes confiscated from students. Local governments are responsible for the collection, processing, recycling and disposal of solid waste, including the operation of local HHW collection facilities. These local programs provide important public services and prevent improper disposal of hazardous waste."

*Arguments in opposition:* None on file.

*Related legislation:*

- 1) AB 2481 (Smith, Chapter 499, Statutes of 2022). Made various changes to the statutory requirements for the transportation of hazardous waste and the operation of HHW collection facilities.
- 2) SB 552 (Archuleta, Chapter 481, Statutes of 2019). Authorized the use of consolidated manifests in the transportation of HHW in door-to-door HHW collection programs.
- 3) SB 726 (Caballero, Chapter 485, Statutes of 2019). Authorized a public agency's contractor to conduct HHW materials exchange programs.

**REGISTERED SUPPORT / OPPOSITION:**

**Support**

Association of California School Administrators  
California Product Stewardship Council

California State Association of Counties  
Californians Against Waste  
City of Santa Maria  
County of Alameda  
Del Norte Solid Waste Management Authority  
Los Angeles Unified School District  
National Stewardship Action Council  
Rethink Waste  
Rural County Representatives of California  
Swana California Chapters Legislative Task Force  
Tehama County Solid Waste Management Agency

**Opposition**

None on file.

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