


TOBACCO PRODUCT WASTE & HAZARDOUS WASTE LAWS

What Tobacco Retailers Need to Know



 **California Senate Bill 793,¹ which prohibits the sale of certain flavored tobacco² products, has been a significant public health victory.³ It has also brought to the forefront a pertinent question: What should tobacco retailers do with products they cannot sell?**

The answer is more complicated than just advising against throwing these products in the trash. Commercial tobacco products contain many hazardous parts, such as nicotine, batteries, and other components made of toxic chemicals and heavy metals.⁴ When these products are about to be discarded, they become subject to federal and state regulation under hazardous waste management laws.⁵ Tobacco retailers who dispose of these materials are likely generators of hazardous waste and must follow the appropriate laws and requirements regulating disposal.

This factsheet provides California tobacco retailers with basic information on the legal requirements for disposing of hazardous materials. The easiest way to deal with this issue, of course, is to avoid it altogether. The California Department of Public Health recommends that retailers contact their distributors to ensure they will no longer receive flavored tobacco products.

At the same time, retailers are encouraged to enquire whether their distributors will take back the flavored products.

In addition to using the information in this resource, retailers should contact their local hazardous waste management department to get specific guidance on how to safely store and dispose of hazardous materials and how these products can be safely transported to an appropriate local hazardous waste disposal facility. Retailers can also seek guidance from their local Certified Unified Program Agencies (CUPAs), which are tasked with enforcing hazardous waste regulations for generators at the local level. Finally, the Regulatory Assistance Office of California's Department of Toxic Substances Control (DTSC) can provide additional information and can be reached via email at rao@dtsc.ca.gov.

Note: A short one-page summary of key takeaways for tobacco retailers is available at the end of this resource: [Summary of Tobacco Product Waste & Hazardous Waste Laws](#).

Overview

The federal government regulates the storage and disposal of hazardous waste materials under the Resource Conservation and Recovery Act (RCRA) and related regulations. The RCRA explains what counts as hazardous waste and what generators of hazardous waste must do to properly dispose of it. Under RCRA and California law, nicotine is a hazardous waste, as are the many lithium-ion batteries commonly found in electronic tobacco products. In fact, nicotine is listed as an acute hazardous waste, meaning that even in small quantities, it is likely to cause illness, permanent injury, or even death, and consequently its storage and disposal are subject to heightened regulatory requirements.⁶

The Environmental Protection Agency (EPA) authorizes the State of California to enforce RCRA and its regulations.⁷ RCRA also preserves the ability of states to enact more stringent regulations.⁸ California's Hazardous Waste Control Act (HWCA) and its related regulations are both stricter and broader than federal hazardous waste management laws. Therefore, even if certain materials or situations are not regulated federally, California may still regulate them.

Are tobacco products hazardous waste?

There are two major categories of hazardous waste. One category is "characteristic" hazardous waste, or waste that exhibits a minimum threshold of certain hazardous characteristics, such as corrosivity, toxicity, reactivity, and ignitability.⁹ Most lithium-ion batteries in electronic tobacco products are likely characteristic hazardous waste because of their toxic contents and their reactivity and ignitability.

The other category is “listed” hazardous wastes (listed in RCRA regulations), which are always considered hazardous when discarded and do not require a case-by-case analysis of their hazardous characteristics. The “P” list identifies **acute hazardous wastes**, which are commercial chemical products so toxic that they can cause death or permanent injury or illness even in small quantities.¹⁰ Nicotine is a “P”-listed acute hazardous waste — EPA Hazardous Waste No. P075.¹¹ E-liquids that contain nicotine as the sole active ingredient (the ingredient that produces the “kick” people crave) are considered commercial chemical products — therefore they are acute hazardous wastes.¹² For this reason, retailers need to be aware that when electronic cigarettes, vapes, e-hookahs, and other nicotine e-liquid products and accessories are discarded, they should be treated as hazardous waste. This is the case when these products are disposed of when they are unused in their original packaging, and even when they are used up or spent.¹³

The EPA’s position is that cigarettes and cigars are not listed as hazardous waste because the nicotine in them is not considered a commercial chemical product, unlike when it is found in e-liquids.¹⁴ However, the EPA emphasizes that it is up to the generator to determine if these items exhibit hazardous characteristics that would subject them to regulation.¹⁵ Notably, studies have shown that discarded cigarette butts are toxic, meaning they may well qualify as “characteristic hazardous waste” under the RCRA.¹⁶ Retailers may reach out to their local regulatory agency (their CUPA) for guidance on how to test these items and other combustible or smokeless tobacco products. In the interest of public health, the Public Health Law Center recommends that tobacco retailers who need to discard any tobacco product waste contact their local hazardous waste management department to inquire how best to dispose of those items, even if they are not currently regulated as hazardous waste.

Note: Both federal and state hazardous waste regulations exempt nicotine patches, gums, and lozenges that have been approved by the Food and Drug Administration (FDA) as over-the-counter nicotine replacement therapy products.¹⁷

Are tobacco retailers considered hazardous waste generators?

A hazardous waste generator is an individual or entity whose need to dispose of a hazardous material causes that material to be considered a waste for the first time, at which point it becomes subject to regulation under federal and state hazardous waste laws.¹⁸ Generally, this means that tobacco retailers who must dispose of tobacco products are most likely hazardous waste generators under RCRA and the state Hazardous Waste Control Act (HWCA). The requirements generators must follow depend on the quantity of hazardous waste present at any one location.

The EPA emphasizes that it is up to the generator to determine if these items exhibit hazardous characteristics that would subject them to regulation.



- **Large Quantity Generators** are those who generate 1,000 kg or more of hazardous waste or who generate more than 1 kg (or 2.2 lbs.) of acute hazardous waste in one month.¹⁹
- **Small Quantity Generators** are those who generate less than 1,000 kg of hazardous waste or 1 kg (or 2.2 lbs.) or less of acute hazardous waste in one month.²⁰
- **Very Small Quantity Generators**²¹ are recognized federally as those who generate less than 100 kg of hazardous waste and less than 1 kg (or 2.2 lbs.) of acute hazardous waste in one month,²² and are exempt from some federal requirements, and to a lesser extent, from some state requirements.

Because nicotine is listed as an acutely hazardous substance and because many of the lithium-ion batteries found in electronic tobacco products are likely characteristic hazardous waste,

tobacco retailers who periodically dispose of electronic tobacco products or nicotine e-liquids will qualify as hazardous waste generators. The main question is whether they qualify as Large or Small Quantity Generators of hazardous waste. This is dependent upon the amount of waste produced in a given month, meaning it can change over time. For example, if a generator produces less than 1 kg of acute hazardous waste in June, it may be considered a Small Quantity Generator. But if it produces more than 1 kg of acute hazardous waste in July, it would then be considered a Large Quantity Generator.

Important: Under California law, *any amount* of nicotine e-liquid will trigger some hazardous waste disposal requirements for a generator, even if it is less than 1 kg of nicotine e-liquid waste per month.

As hazardous waste generators, what must tobacco retailers do to comply with state and federal law?

Below are some general requirements for tobacco retailers who need to dispose of tobacco products. **This list is not meant to be comprehensive and should not be taken as legal advice.** For specific guidance, consult with a local hazardous waste management department. For additional information, please visit [DTSC Hazardous Waste Generator Requirements](#).

- **Count the hazardous waste.** Regardless of generator classification, retailers need to determine how much of the products they will be throwing away will count as hazardous waste on site at any given time.
 - All nicotine e-liquids must be counted by weight, including the e-liquid in cartridges that can be separated from the rest of the device, as well as those e-liquids in containers that are embedded in disposable devices and are not designed to be removed.
 - Lithium-ion batteries in tobacco products are likely characteristic hazardous wastes. Retailers must determine which ones are regulated and count them by weight.

WARNING: E-liquid containers should *not* be separated from the electronic smoking or vaping device in which they are embedded. This can result in death or serious injury from accidental explosion or nicotine poisoning, because nicotine is absorbed by the skin.

- **Determine one's generator classification** based on the amount of hazardous waste or acute hazardous waste on site that month.
 - If a generator has more than 1 kg (or 2.2 lbs.) of total nicotine e-liquid in any given month, large quantity generator requirements apply that month. If a generator has less

than 1 kg of total nicotine e-liquid, small quantity generator requirements apply. Note that classifications can shift month to month.

- If a generator has more than 1,000 kg (or 2,200 lbs.) of lithium-ion batteries that exceed the hazardous characteristic thresholds, large quantity generator requirements will apply.
- **Obtain a generator ID number from the EPA or DSTC.**
- **Follow all onsite regulations based on the generator classification.** These may include, but are not limited to:
 - Limits on the **quantity** of and on the amount of **time** that the hazardous waste can remain on site (that is, at the retail shop) before being properly disposed.²³ If a retailer holds onto the waste for too long, the retailer could be categorized a Treatment, Storage, and Disposal Facility (TSDF), inadvertently triggering additional regulatory requirements.
 - Training for generators and their employees (DTSC provides free training materials).
 - Specific storage, container, and labeling for different types of hazardous waste.
 - Contingency plans in case of fires, explosions, or accidental release of hazardous waste.²⁴

Note that, under both federal and state laws, personal protective equipment must be provided to employees who may be exposed to the hazardous waste.²⁵

For a more detailed list of generator storage and disposal regulations, visit <https://dtsc.ca.gov/wp-content/uploads/sites/31/2018/05/California-Generator-Chart.pdf>.

- **Determine the appropriate disposal facility.** Hazardous waste cannot simply be thrown away in the trash or in the recycling stream. Instead, retailers must identify the proper facility to which to take their hazardous waste.
 - Generators who qualify as very small quantity generators (as explained above) may be able to take limited amounts of hazardous waste or acute hazardous waste to household hazardous waste collection facilities. In California, these facilities are meant primarily for hazardous waste generated in a residence, but California law contains a narrow exception that in certain circumstances can apply to very small quantity generators.²⁶
 - Household hazardous waste collection facilities can accept no more than 100 kg of hazardous waste or no more than 1 kg of acute hazardous waste per month from qualifying very small quantity generators.

- **Contact a licensed hazardous waste transporter.** It is unlawful to transport hazardous waste without a valid registration provided by the DSTC.²⁷ The State has created a database of registered transporters.
 - Note that there is a narrow exception for very small quantity generators who are transporting less than 1 kg of waste to a household hazardous collection facility that will accept the waste.²⁸
- **Fill out a Uniform Hazardous Waste Manifest** — a form that must accompany hazardous waste from the generation point (retail shop) to its disposal destination and during transportation.



Why is it crucial for tobacco retailers to comply with hazardous waste management laws?

Public safety and the health of the environment are excellent reasons to comply with hazardous waste management regulations. E-cigarettes and related components leach several toxic substances that aggregate in animals, soil, and aquatic ecosystems, contaminating drinking water and food sources.²⁹ E-cigarettes and components are also known for catching on fire even when not activated, and small lithium-ion batteries have destroyed waste management facility equipment and pose a serious safety risk to waste management workers.³⁰ Cigarettes, including the butts that tend to accumulate

near tobacco retailers, and other combustible tobacco products are known to leach nicotine, other toxic chemicals, and heavy metals, for years after being thrown out. These leachates are harmful to people, animals, and plants.³¹

In addition to environmental and public safety reasons, it makes good business sense to properly dispose of tobacco product waste. Fines for non-compliance with hazardous waste management regulations can reach thousands of dollars per violation.³² In addition, tobacco products that cannot be sold and are stored for longer than hazardous waste regulations permit can trigger several penalties. These violations may lead to the retailer being categorized as a Treatment, Storage, and Disposal Facility (TSDF), and failing to comply with the many TSDF regulations can make a retailer liable for further penalties. The simplest way to avoid liability under hazardous waste management laws is to reduce the amount of hazardous waste products (that is, tobacco products) in a retailer's inventory. Short of that, it's still easier and cheaper to follow the rules for properly disposing of hazardous tobacco product waste than to deal with the financial and legal consequences of breaking the law.

Please note: a short summary of the information in this resource is available on [page 9](#).

Additional Resources

- [Business Hazardous Waste Generators, Department of Toxic Substances Control](#)
- [DTSC Hazardous Waste Generator Requirements, Department of Toxic Substances Control](#)
- [How Do I Find Hazardous Waste Management Facilities in My Area?, U.S. EPA](#)
- [Locate your CUPA, Local Hazardous Waste Management Compliance Agency](#)
- [Disposal of E-Cigarettes, California Department of Public Health](#)
- [Tobacco Product Waste: Frequently Asked Questions \(California\), Public Health Law Center](#)
- [Disposing of E-Cigarette Waste: FAQ for Schools and Others, Public Health Law Center](#)

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Summary of Tobacco Product Waste & Hazardous Waste Laws

Under federal and state law, many tobacco products become hazardous waste when they are going to be thrown away — regardless of whether they are new or used up. Retailers need to be aware of the following hazardous waste management laws that restrict how they can dispose of these items.*

E-Tobacco Products Are Likely Hazardous Waste

- **Nicotine in certain forms, such as the liquid nicotine used in vape e-liquids**, is classified as an acute hazardous waste under the Resource Conservation and Recovery Act (RCRA) and related regulations.
- The **lithium-ion batteries** commonly found in e-tobacco products likely qualify as “characteristic hazardous waste” under RCRA and/or state law.

Most Tobacco Retailers Are Likely “Hazardous Waste Generators”

- A hazardous waste generator is any person or entity who needs to dispose of any hazardous waste.
- RCRA has different rules depending on how much hazardous waste you are throwing away. Retailers should count their hazardous waste to determine their “generator status.”
 - If you possess more than 1,000 kgs of “characteristic hazardous waste” (e.g., lithium-ion batteries) or more than 1 kg of liquid nicotine that you are planning to discard, you are considered a **Large Quantity Generator** under RCRA.
 - If you possess less than 1,000 kgs of “characteristic hazardous waste” or less than 1 kg of liquid nicotine that you are planning to discard, you are considered a **Small Quantity Generator** under RCRA.

As Hazardous Waste Generators, Retailers Must Follow Certain Steps

- **Step 1:** Obtain a Generator ID Number.
- **Step 2:** Follow all onsite regulations for your generator status, including rules for how to: dispose of hazardous waste in a timely fashion; train employees on handling hazardous waste; safely store the waste; and create contingency plans for fires and other emergencies.
- **Step 3:** Contact a licensed hazardous waste transporter to take the waste to an appropriate hazardous waste disposal facility.
- **Step 4:** Fill out a Uniform Hazardous Waste Manifest for the waste transportation.

Retailers Should Inform Themselves & Seek Guidance from Regulators & Attorneys

- Federal and state environmental law can be complicated, and violating environmental regulations can carry civil and criminal penalties.

The Public Health Law Center has several resources on this topic on our website. Also, seek guidance from your local California Uniform Program Agency, the Environmental Protection Agency, and attorneys familiar with the laws in your jurisdiction.

* This informational resource is not exhaustive and should not be considered legal advice. If you have specific legal questions, we recommend that you consult with an attorney familiar with the laws in your jurisdiction.

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Endnotes

- 1 SB 793 prohibits the sale of all flavored tobacco products, including menthol, with the exception of shisha (or hookah), premium cigars, and loose leaf tobacco. This publication will refer to the prohibited products as “flavored products” for simplicity but with the understanding that this would not include flavored shisha, flavored premium cigars, nor flavored loose leaf tobacco.
- 2 The Public Health Law Center recognizes that traditional and commercial tobacco are different in the ways they are planted, grown, harvested, and used. Traditional tobacco is and has been used in sacred ways by Indigenous communities and tribes for centuries. In contrast, commercial tobacco is manufactured with chemical additives for recreational use and profit, resulting in disease and death. For more information, visit <http://keepitsacred.itcmi.org>. When the word “tobacco” is used throughout this publication, a commercial context is implied and intended.
- 3 [Bill Text - SB-793](#).
- 4 See Yogi Hale Hendlin, *Alert: Public Health Implications of Electronic Cigarette Waste*, 108 AM. J. PUB. HEALTH 1489 (2018), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6187764>; Hye-Bin Choi et al., *The Impact of Anthropogenic Inputs on Lithium Content in River and Tap Water*, 10 NATURE COMM'NS 5371 (2019), <https://www.nature.com/articles/s41467-019-13376-y>; Max Krause & Timothy Townsend, *Hazardous Waste Status of Discarded Electronic Cigarettes*, 39 WASTE MGMT. 57 (2015), <https://europaemc.org/article/MED/25746178>; Thomas E. Novotny & Laila Hamzai, *Cellulose Acetate Cigarette Filter is Hazardous to Human Health*, TOBACCO CONTROL (2023), <https://tobaccocontrol.bmj.com/content/early/2023/04/17/tc-2023-057925>.
- 5 Hazardous waste laws regulate all hazardous waste, not just waste derived from tobacco products. However, this resource will focus only on tobacco product waste.
- 6 [Code of Federal Regulations \(C.F.R.\), Title 40, § 261.33\(e\)](#); [California Code of Regulations \(C.C.R.\). Title 22 § 66261.33\(a\)](#), (f).
- 7 Resource Conservation and Recovery Act - RCRA | Department of Toxic Substances Control ([ca.gov](#)); 57 Federal Register (FR) 32726.
- 8 [42 U.S. Code \(U.S.C.\) §6929](#).
- 9 [40 C.F.R. §§ 261.20, 261.21, 261.22, 261.23, 261.24](#), [22 C.C.R. §§ 66261.20, 66261.21, 66261.22, 66261.23, 66261.24](#).
- 10 [40 C.F.R. § 261.11\(a\)\(2\)](#).
- 11 [40 C.F.R. § 261.33\(e\)](#), [22 C.C.R. § 66261.33\(a\)](#), (f).
- 12 See E.P.A. comment at [40 C.F.R. § 261.33\(d\)](#); see Letter from Barnes Johnson, EPA, to Daniel K. DeWitt (May 8, 2015), <https://rcrapublic.epa.gov/files/14850.pdf>.
- 13 A nicotine e-liquid container will be considered an acute hazardous waste unless it meets the definition of “empty” under both RCRA and HWCA. These laws require highly specialized processes to clean a container that held acute hazardous waste. These specialized processes cannot be undertaken without obtaining specific authorization from the Department of Toxic Substances Control (DTSC). [22 C.C.R. § 66261.33\(c\)](#); [22 C.C.R. § 66261.7\(b\)](#) and (d).
- 14 Letter from Barnes Johnson, EPA, to Ann Marie Beattie (July 17, 2017), <https://rcrapublic.epa.gov/files/14894.pdf>. See also [22 C.C.R. § 66262.11](#).
- 15 *Id.*
- 16 See, e.g., Slaughter E, Gersberg RM, Watanabe K, Rudolph J, Stransky C, Novotny TE. Toxicity of cigarette butts, and their chemical components, to marine and freshwater fish. *Tob Control*. 2011 May;20 Suppl 1(Suppl_1):i25-9. doi: 10.1136/tc.2010.040170. Erratum in: *Tob Control*. 2011 Nov;20(6):418. PMID: 21504921; PMCID: PMC3088407.

- 17 <https://www.epa.gov/hwgenerators/frequent-questions-about-management-standards-hazardous-waste-pharmaceuticals-and#nicotine>; <https://dtsc.ca.gov/section-100-amend-the-p075-hazardous-waste-listing-for-nicotine/>
- 18 40 C.F.R. § 260.10; 22 C.C.R. § 66260.10.
- 19 40 C.F.R. § 260.10.
- 20 40 C.F.R. § 260.10, 22 C.C.R. § 66260.10, California Health and Safety Code (H.S.C.) § 25123.3.
- 21 40 C.F.R. § 262.13.
- 22 40 C.F.R. § 260.10.
- 23 40 C.F.R. §§ 262.17; 22 C.C.R. § 66262.34(a).
- 24 40 C.F.R. § 264.50 et al., 22 C.C.R. § 66265.51(a).
- 25 29 C.F.R. § 1910.132, 8 C.C.R. § 8414.
- 26 H.S.C. § 25218.3(b).
- 27 H.S.C. § 25163.
- 28 H.S.C. § 25218.5.
- 29 Yogi Hale Hendlin, *Alert: Public Health Implications of Electronic Cigarette Waste*, 108 AM. J. PUB. HEALTH 1489 (2018), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6187764/>; Hye-Bin Choi et al., *The Impact of Anthropogenic Inputs on Lithium Content in River and Tap Water*, 10 NATURE COMM'NS 5371 (2019), <https://www.nature.com/articles/s41467-019-13376-y>; Max Krause & Timothy Townsend, *Hazardous Waste Status of Discarded Electronic Cigarettes*, 39 WASTE MGMT. 57 (2015), <https://europemc.org/article/MED/25746178>.
- 30 U.S. FIRE ADMIN., *Electronic Cigarette Fires and Explosions in the United States 2009–2016* (2017), https://www.usfa.fema.gov/downloads/pdf/publications/electronic_cigarettes.pdf; U.S. ENV'T. PROT. AGENCY, *An Analysis of Lithium-Ion Battery Fires in Waste Management and Recycling* (2021), https://www.epa.gov/system/files/documents/2021-08/lithium-ion-battery-report-update-7.01_508.pdf; The Guardian, *Single-use Vapes Sparking Surge in Fires at UK Waste Plants* (May 2023), <https://www.theguardian.com/society/2023/may/13/single-use-vapes-sparking-surge-in-fires-at-uk-waste-plants>.
- 31 Thomas E. Novotny & Laila Hamzai, *Cellulose Acetate Cigarette Filter is Hazardous to Human Health*, TOBACCO CONTROL (2023), <https://tobaccocontrol.bmj.com/content/early/2023/04/17/tc-2023-057925>.
- 32 McCoy Review, *EPA's 2020 Adjustment to RCRA Civil Penalties* (McCoy Seminars, Lakewood, CO), Feb. 12, 2020, <https://www.mccoyseminars.com/newsletter/article.cfm?artnum=592>.