VAPE WASTE AT KANSAS SCHOOLS

Handling and Disposal Guidance

Vape waste can be a challenge for schools to manage properly. This guidance document provides an overview of waste regulations and acceptable vape waste handling and disposal options to help Kansas schools with regulatory compliance.

WHAT IS VAPE WASTE?

Vape waste refers to any combination of discarded vape devices or components. It can include disposable vape pens, rechargeable e-cigarettes, vape juice cartridges and residual vape liquids.



HAZARDOUS WASTE OVERVIEW

Waste from nonhousehold entities, such as schools, may be hazardous under the Resource Conservation and Recovery Act (RCRA). Entities that knowingly or unknowingly generate hazardous waste are subject to RCRA regulations and compliance requirements. A summary of RCRA requirements in Kansas can be found in the KDHE Bureau of Waste Management's (KDHE BWM) Hazardous Waste Generator Handbook.

TO BE RCRA-COMPLIANT, IT IS ESSENTIAL THAT YOU:

Understand your waste streams.

Hazardous waste is identified through the waste determination process.[1] In Kansas, a waste determination must be completed for each potentially hazardous waste stream. Vape waste is hazardous if it contains lithium-ion batteries (a non-acutely hazardous waste) or nicotine-containing vape juice (an acutely hazardous waste).[2]

Know your generator category.

Record how many pounds of hazardous waste you generate each calendar month and the total amount kept in storage. These weights determine your hazardous waste generator category for that month. There are four generator categories in Kansas:

- Conditionally Exempt Small Quantity Generator (CESQG)
- Kansas Small Quantity Generator (KSQG)
- Small Quantity Generator (SQG)
- Large Quantity Generator (LQG)

Manage your hazardous waste accordingly.

Each generator category has its own compliance requirements that cover disposal, containment, training, recordkeeping, reporting and emergency preparedness. The table at the end of the document provides an overview of each generator category's criteria and compliance requirements. Follow the requirements for your specific generator category.

VAPE WASTE HANDLING



Vape waste is a danger to human and environmental health: lithium-ion batteries are a serious fire risk and can leach out heavy metals when damaged or improperly disposed of, and nicotine can be deadly when ingested, absorbed through the skin or inhaled in large amounts. Accidental exposure can be especially dangerous to children and to individuals with respiratory issues.

The following recommendations are best management practices to protect human and environmental health from battery fires and nicotine toxicity. This list is not exhaustive, however, as your site may be subject to additional requirements per its hazardous waste generator category.

Do:

- Consult with trained staff if you are unfamiliar with your site's waste handling procedures.
- Educate fellow staff members about the dangers of vape waste.
- Wear chemical resistant gloves when handling leaky devices or cartridges.
- Store vape waste in a secure, centralized, nonflammable container, and:
  - Place leaky devices and cartridges into sealed plastic bags.
  - Place each loose lithium-ion battery into a separate, sealed plastic bag or tape each battery's terminals. Store batteries that appear damaged separately on an inert material such as sand.
- Keep a fire extinguisher and a spill kit near stored vape waste.
- Properly dispose of vape waste before 2.2 pounds of it has accumulated.

Do not:

- Mix hazardous vape waste with regular trash or recycling.
  - This is a safety risk, illegal disposal of hazardous waste and may also cause surrounding waste to become hazardous.
- Dispose of nicotine vape juice down the drain.
  - Besides being acutely hazardous, nicotine waste is also considered a hazardous pharmaceutical waste and cannot go down the drain.
- Wash or rinse nicotine vape juices out of vape waste devices.
  - This can easily create more than 2.2 pounds of acutely hazardous waste and may constitute a form of treatment.
- Intentionally dismantle hazardous vape waste devices.
  - This is a safety risk and may constitute a form of treatment.

VAPE WASTE DISPOSAL

Accumulating and non-accumulating CESQGs may self-transport hazardous waste to a treatment, storage or disposal facility (TSDF) or to a household hazardous waste (HHW) facility. Not all HHW facilities accept hazardous waste from nonhouseholds though, so call ahead before attempting a visit.

Non-accumulating CESQGs may also self-transport hazardous waste to a municipal solid waste (MSW) landfill. If a CESQG does not self-transport, then it can instead dispose of its waste at a TSDF through a registered hazardous waste transporter.

KSQGs, SQGs and LQGs must obtain an EPA ID number from KDHE and use a registered hazardous waste transporter to dispose of hazardous waste at a TSDF.

This table is an overview of hazardous waste generator criteria and requirements in Kansas as of 2025. Consult KDHE BWM's Hazardous Waste Generator Handbook and KDHE BWM's policies and guidance documents for additional details.

Kansas RCRA Requirements		CESQG (Non-Accumulating)	CESQG (Accumulating)	KSQG	SQG	LQG
Non-Acutely Hazardous	Generation Limit (lb/mo)	< 55	< 55	≥ 55 to ≤ 220	> 220 to < 2,200	≥ 2,200
	Accumulation Limit (lb)	55	2,200	2,200	13,200	No limit
Acutely Hazardous	Generation Limit (lb/mo)	< 2.2	< 2.2	< 2.2	< 2.2	≥ 2.2
	Accumulation Limit (lb)	2.2	2.2	2.2	2.2	No limit
EPA ID Number		✗	✗	✓	✓	✓
Waste Determination		✓	✓	✓	✓	✓
Nonrecycling Disposal Sites		MSW landfill, HHW or TSDF	HHW or TSDF	TSDF		
Transporter Options		Can self-transport		Must use a transporter registered with KDHE[3]		
Manifest Required		✗	✗	✓	✓	✓
Storage Time Limit		✗	✗	✗	180 days[4]	90 days[5]
Container Management		✗	✓	✓	✓	✓
Storage Area Inspections		✗	Monthly		Weekly	
Employee Training		✗	✗	Annual training, informal		Annual training, formal
Recordkeeping Requirements		✗	Storage area inspection logs *(Retain for at least 3 years)*	Manifests, test results, waste determinations, reports, trainings and storage area inspection logs *(Retain for at least 3 years)*		SQG **and** biennial report *(Retain for at least 3 years)*
Reporting Requirements		✗	✗	Annual report		SQG **and** biennial report
Annual Fees		✗	✗	$150		Weight-based
Emergency Planning		✗	✗	Basic emergency preparedness	KSQG **and** emergency coordinator	SQG **and** contingency plan

✓ = Action required ✗ = No action required

Lithium-ion batteries are non-acutely hazardous waste. It takes approximately 500 of the 18650-type lithium-ion batteries to exceed 55 pounds.[6]

Nicotine-containing vape juice is acutely hazardous waste. It takes approximately 1,000 Juul pods, 76 Elfbars or 200 full 5-milliliter vials of vape juice to exceed 2.2 pounds.[6]

Scan the QR code for more vape waste resources.

RESOURCES

Scan the QR code to access the referenced resources. The K-State Small Business Environmental Assistance Program (SBEAP) provides free, confidential compliance assistance to small businesses and entities across Kansas. Visit our website, sbeap.org, or contact us at 800-578-8898 or sbeap@k-state.edu for help.

- KDHE BWM Hazardous Waste Generator Handbook
  www.kdhe.ks.gov/DocumentCenter/View/4882/Hazardous-Waste-Generator-Handbook-PDF
- KDHE BWM TGD HW-2011-G1
  www.kdhe.ks.gov/DocumentCenter/View/5427/Hazardous-Waste-Determinations-and-Documentation-G---PDF
- KDHE BWM TGD HW-2011-G2
  www.kdhe.ks.gov/DocumentCenter/View/5424/Characteristic-and-Listed-Hazardous-Wastes-G---PDF
- KDHE BWM Policies and Guidance Documents
  www.kdhe.ks.gov/1871/Policies-Guidance-Documents
- EPA statements on safely disposing of vape waste for schools and small businesses
  www.epa.gov/hw/how-safely-dispose-e-cigarettes-information-schools-and-small-businesses
  (*the information contained in this webpage reflects federal RCRA regulations, not Kansas RCRA regulations*)
- KDHE BWM list of registered hazardous waste transporters
  www.kdhe.ks.gov/DocumentCenter/View/5084/Hazardous-Waste-Transporter-List-08-25-2022-PDF
- KDHE BWM list of permitted household hazardous waste facilities
  www.kdhe.ks.gov/DocumentCenter/View/5146
- KDHE BWM list of permitted landfills
  www.kdhe.ks.gov/DocumentCenter/View/5564/KS-Waste-Disposal-Site-Report-PDF
- SBEAP hazardous waste resources
  www.sbeap.org/waste-management/hazardous-waste
- Public Health Law Center's FAQ on Disposing of E-Cigarette Waste for Schools
  www.publichealthlawcenter.org/sites/default/files/resources/FAQ-e-cig-disposal-schools.pdf
- KDHE nicotine reduction resources for schools
  www.kdhe.ks.gov/1090/Vape-Free-Schools

FOOTNOTES

[1] See KDHE BWM TGD HW-2011-G1 for waste determination instructions and example form.

[2] See KDHE BWM TGD HW-2011-G2 for information on hazardous waste classifications.

[3] Use KDHE BWM's list of registered hazardous waste transporters to find a service provider if needed.

[4] May extend to 270 days if hazardous waste must be transported more than 200 miles for off-site treatment, storage or disposal.

[5] May extend to 120 days if an extension is granted by KDHE BWM.

[6] Based on EPA's statements in its How to Safely Dispose of E-Cigarettes: Information for Schools and Small Businesses webpage as of Feb. 20, 2025. KDHE has not evaluated the accuracy of these determinations, and it is the responsibility of each generator to make an accurate waste determination.

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KANSAS SBEAP Small Business Environmental Assistance Program

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