South Dakota Department of Agriculture and Natural Resources

Proper Management of E-Cigarette Waste for South Dakota Schools

WHAT?

An electronic cigarette or vape is a device that simulates tobacco smoking. It consists of an atomizer, a power source such as a battery, and a container such as a cartridge or tank holding nicotine containing juice. Instead of smoke, the user inhales vapor. Vapes come in single use or refillable devices with some batteries being removable and others not. Nicotine is an acute, P-listed hazardous waste. Lithium-ion batteries are universal hazardous waste that pose a fire and safety hazard.

Under South Dakota law, both nicotine and lithium-ion batteries must be properly disposed of as hazardous waste.

Liquid nicotine **cannot** go down the drain.

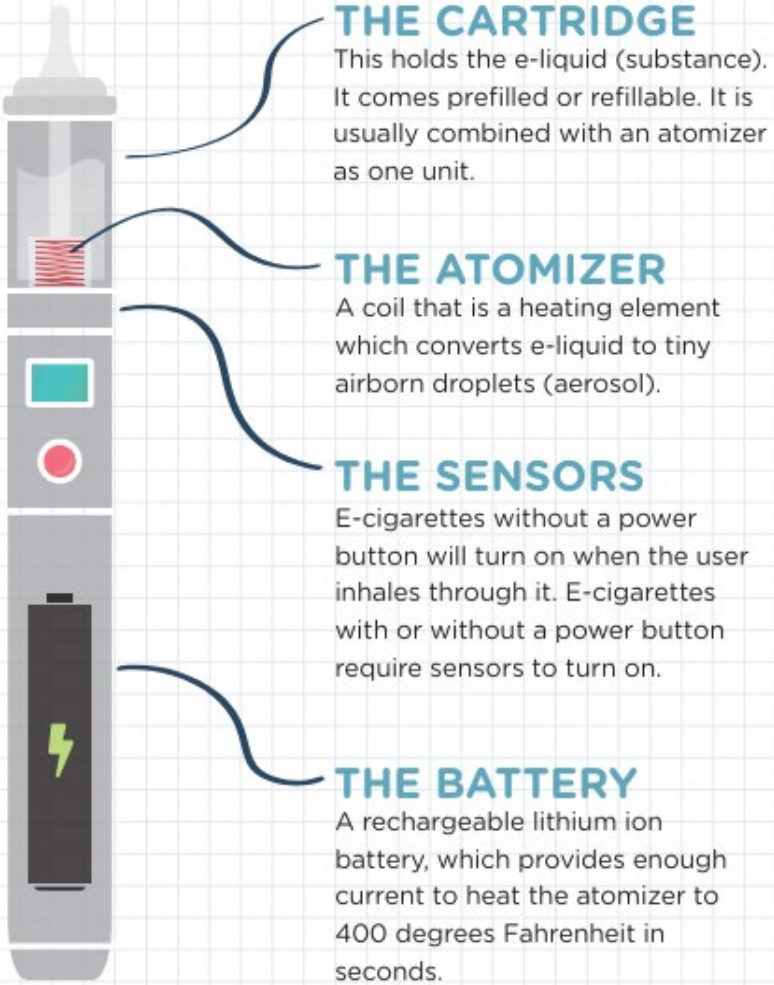
Cartridges or pods that contain liquid (i.e. used or unused), **cannot** be thrown in the garbage.

SO WHAT?

Improper handling and disposal of e-cigarettes pose risks to human health and the environment.

The Department of Agriculture and Natural Resources has rules that govern the proper management and disposal of hazardous wastes. These can be found under the Administrative Rules of South Dakota (ARSD) Chapter 74:28. These regulations include, but are not limited to, proper management and disposal of e-cigarette waste and notification as a hazardous waste generator with DANR – depending on how much waste the generator produces in a calendar month. Refer to the "Hazardous Waste Generator Status" table on the next page.

ANATOMY OF AN E-CIGARETTE



NOW WHAT?

Determine your hazardous waste generator status.

Based on the amount of hazardous waste generated in a calendar month, a school will be classified under state and federal law within one of the categories listed on the next page.

HAZARDOUS WASTE GENERATOR STATUS

Generator Category	Generation and Accumulation Limits	Storage/Shipping Schedule
Very Small Quantity Generator (VSQG)	**In one calendar month you generate any of the following:** • 220 pounds or less of hazardous waste • 220 pounds or less of spill cleanup debris containing hazardous waste • 2.2 pounds or less of acute hazardous waste **— OR —** **At any time you accumulate any of the following:** • 2,200 pounds or less of hazardous waste on-site • 2.2 pounds or less of acute hazardous waste on-site	2,200 pounds or less of hazardous waste, or 2.2 pounds or less of acute hazardous waste, may be stored indefinitely on-site.
Small Quantity Generator (SQG)	**In one calendar month you generate any of the following:** • More than 220 pounds but less than 2,200 pounds of hazardous waste • More than 220 pounds but less than 2,200 pounds of spill cleanup debris containing hazardous waste **— OR —** **At any time you accumulate any of the following:** • 13,228 pounds or less of hazardous waste on-site • 2.2 pounds or less of acute hazardous waste on-site	Waste must be shipped off-site within 180 days after the waste was first placed in a container. If the receiving facility is more than 200 miles from the generation site, the SQG may store waste up to 270 days.
Large Quantity Generator (LQG)	**In one calendar month you generate any of the following:** • 2,200 pounds or more of hazardous waste • 2,200 pounds or more of spill cleanup debris containing hazardous waste • More than 220 pounds of spill cleanup debris containing an acute hazardous waste • More than 2.2 pounds of acute hazardous waste **— OR —** **At any time you accumulate any of the following:** • More than 13,228 pounds of hazardous waste on-site • More than 2.2 pounds of acute hazardous waste on-site	All accumulated hazardous waste must be shipped off-site within 90 days of the accumulation start date. If the 90-day deadline is not met, the generator is required to obtain a hazardous waste storage facility permit.

HOW TO HANDLE E-CIGARETTE WASTE

- ❑ Keep a spill kit stocked with binders (sand/diatomaceous earth/sawdust) and gloves nearby.
- ❑ Have a Safety Data Sheet for e-liquids available (this can be found via an internet search).
- ❑ Using gloves, place any e-liquids, cartridges, or pods in a container that is in good condition and has a lid that can be securely closed. Label the container with the words "Hazardous Waste Nicotine," and "DANGER — Toxic in contact with skin."
- ❑ Keep a log of the amount of waste as it is collected and make arrangements with a transporter and disposal company to pick up the waste BEFORE you accumulate the maximum limit for your generator status.
- ❑ If possible, remove/separate lithium-ion battery from the vaping device.
- ❑ Store lithium-ion batteries away from heat and direct sunlight. Prevent terminals from touching by storing each battery in a plastic bag or by covering the terminals with tape.
- ❑ Recycle lithium-ion batteries if possible: https://danr.sd.gov/Environment/WasteManagement/Recycling/Guide.aspx
- ❑ Place damaged lithium-ion batteries in a plastic bag and then place the bag in an inert material like sand. Lithium-ion batteries that have an odor, are discolored, deformed, bulging, or swollen are damaged and have the potential to catch fire when they absorb moisture.

Follow these steps for safely disposing of e-cigarette waste:

1. If your school is a VSQG, call your closest municipal solid waste disposal facility to see if they accept these products.
2. If your school is an SQG or LQG, contact a licensed disposal service or follow step three to learn more.
3. Request technical assistance from DANR to learn about disposal options, planned episodic events, or other disposal details:https://danr.sd.gov/Environment/WasteManagement/HazardousWaste/default.aspx
4. Document the process your school will use to manage this type of waste, and share this process with all school staff.

Have questions? DANR has made it easy to get your questions answered. To learn more and request free, nonregulatory technical assistance, please visit: https://danr.sd.gov/Environment/WasteManagement/HazardousWaste/default.aspx

DISPOSING OF LARGE, UNANTICIPATED QUANTITIES OF HAZARDOUS WASTE ("EPISODIC EVENTS")

In the event that a school (VSQG or SQG) has an unusually large amount of e-cigarette waste to dispose of, this may be defined as a "planned episodic event." In accordance with episodic event requirements, the school can maintain its status as a VSQG or an SQG. DANR's goal is to help all schools comply with safe disposal requirements.

For more information about episodic events, check out these helpful Episodic Generation FAQs: https://www.epa.gov/hwgenerators/frequent-questions-about-implementing-hazardous-waste-generator-improvements-final#epi