# Providing Guidance on

# **Safe Disposal of Vape Waste** at K-12 Schools in California





## INTRODUCTION

K-12 schools have been dealing with students vaping an assortment of electronic smoking devices on school grounds. If vaping occurs on campus, school staff and administration often confiscate products and are then responsible for safe storage and disposal of the devices.

Electronic smoking devices and nicotine solutions are hazardous to human health and the environment. Toxic nicotine solutions can leak into the ground and contaminate the environment. Lithium-ion batteries can start fires in garbage trucks and landfills and need to be recycled. Confiscated and found vape waste needs to be handled, stored, and disposed of properly. Most vape waste should not be thrown in the garbage.

Proposition 99 and 56 funds cannot be used to pay for disposal of vape waste; however, TUPE Programs may offer guidance to school and district staff and administration on proper handling, storage, and disposal of vape waste.

# WHAT IS VAPE WASTE?

Liquid nicotine, regardless if it is freebase nicotine or a nicotine salt solution, is listed as an acute hazardous waste by the US Environmental Protection Agency (EPA). Liquid nicotine can be fatal to humans, even in low doses. In addition to electronic smoking devices being hazardous waste, these products may also include battery waste which needs to be recycled.

# **WHAT'S INCLUDED:**





# **Nicotine Waste (Toxic)**

- Pods
- Bottles
- Cartridges



# **Battery Waste (Lithium-Ion)**

- E-cigarettes
- Pens
- · Mods and tanks



**Nicotine + Battery Waste** 

• Single use or "disposable" device

# TUPE programs can provide the following guidance and support to K-12 and district partners:

#### SAFE HANDLING

- Educate school staff on different tobacco and vape products found on campus.
- Provide guidance on safe handling procedures for confiscated and found products.
- Highlight the toxicity of tobacco product waste due to nicotine.
- Emphasize the necessity of using new nitrile gloves when handling confiscated and found items.
- Ensure vaping devices are turned off before handling.
- Instruct staff to dispose of used gloves properly and wash hands thoroughly after handling.

### SAFE AND PROPER STORAGE

Once confiscated or found on campus, schools often throw waste directly into garbage cans or store them in drawers or bins until deciding how to dispose of them. However, the majority of *vape waste products need to be stored and disposed of properly as hazardous waste.* 

- All vape-related waste should be stored in a sealed, air-tight plastic container.
- When purchasing or securing a bin to use for vape waste, label it with "Hazardous Waste." Additionally, date the container by writing the date the first device is added to this bin. This can be done by creating a hazardous waste label identifying the type of waste and start date of collection. This information is important for disposal.
- Before placing a vaping device in the container, if possible, ensure the device is powered "off."
- If a device, pod, cartridge, or bottle is damaged or leaking, it should be isolated and stored in a sealable plastic bag (i.e., Ziploc) before being placed in the bin.
- Storage containers should be stored in a cool environment away from the sun to avoid batteries overheating and exploding or catching on fire.
- If a school will dispose of the confiscated waste locally rather than
  through the District or a contracted vendor, ensure bins filled with
  confiscated and collected vape waste does not weigh over 2.2 lbs.
  Per the US EPA, if a school or district accumulates more than 2.2lbs
  of vape waste, they will be classified as a Large Quantity Generator
  which changes where and how products are to be disposed.
- Containers should be disposed of within 90 days from the first date of collection.



### **DISPOSAL OF VAPE WASTE**

Vape waste is hazardous waste and is, therefore, regulated by the US EPA under the Resource Conservation and Recovery Act (RCRA). Schools and districts that accumulate RCRA-listed chemicals, including nicotine, need to dispose of them as hazardous waste. The <a href="Public Health Law Center">Public Health Law Center</a> offers additional guidance on RCRA and disposal of vape waste for K-12 schools.

At this time, California EPA does not offer further guidance on proper disposal of vape waste beyond what is provided by US EPA. Thus, city and county hazardous waste agencies must determine how and if they will accept vape waste. In order to provide guidance to K-12 schools and districts, TUPE programs can work with the Local Lead Agency (LLA) to determine hazardous waste guidelines as well as sites for schools or districts to dispose of their waste. LLAs can be helpful partners in contacting local government hazardous waste agencies as both may be county departments. Or, LLAs and TUPE programs can research facility sites, collection times, and items that can be collected by visiting https://calrecycle.ca.gov/HomeHazWaste/Directory/.



# How TUPE Programs Can Guide and Support K-12 Schools in Addressing Vape Waste

**BUILD NEW PARTNERSHIPS WITH SCHOOLS:** Local schools may be struggling with how to best address vaping, integrate prevention curriculum, and dealing with confiscated vaping devices. Offering guidance on safe handling and disposal of vape waste may lead to a new partnership with an unengaged K-12 school that is interested in doing more work to address tobacco use and intervention on campus.

**EDUCATE DISTRICT STAFF:** District staff responsible for hazardous waste collection and disposal may not be aware that vape waste is classified as hazardous waste under RCRA. Provide education on the various types of vape waste and encourage collection at school sites.

**PARTNER WITH LOCAL ORGANIZATIONS:** TUPE programs have the opportunity to develop partnerships with a LLA, community-based smoke/tobacco-free coalitions, and hazardous waste partners to determine how to best support schools. The stronger the partnerships, the more successful a community is in collectively preventing and addressing youth tobacco use.

**HIGHLIGHT THE ENVIRONMENTAL IMPACT OF TOBACCO PRODUCT WASTE:** Tobacco product waste is extremely harmful to the environment, as improper disposal can lead to fires, toxic substances leaching into the ground,

and disposal of massive quantities of battery waste in landfills. TUPE programs can draw attention to the environmental impact of vape waste (and other tobacco product waste) through awareness campaigns and youth development activities such as beach and park cleanups. This may motivate students to avoid tobacco products, seek tobacco treatment services, and educate their peers on the issue.

**DOCUMENT THE PROBLEM:** Confiscated and littered products provide important insight into what products students are using as well as changes in behavior over time. This information is useful in designing prevention campaigns and intervention programs.



# **EDUCATE COMMUNITY PARTNERS AND DECISION MAKERS:** Share how vaping

and tobacco product waste is impacting youth, schools, and districts in your area. This information can be provided at smoke/tobacco-free county coalition meetings and public meetings with local decision makers. Invite youth partners to share their stories on how tobacco product waste impacts their community and ask leaders to take appropriate action to address the problem.





