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# ENVIRONMENTAL Fact Sheet

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29 Hazen Drive, Concord, New Hampshire 03301 • (603) 271-3503 • [www.des.nh.gov](http://www.des.nh.gov)

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## Management of Vaping Liquids, E-Cigarettes and Nicotine Waste

The use of e-cigarettes and vaping fluids has emerged as a growing business to provide the general public with an alternative to smoking. Discarded nicotine-containing materials can present a significant risk to human health and the environment if improperly disposed of and are regulated as a hazardous waste. Incorrectly disposing of these materials, even unknowingly, can have serious regulatory consequences and these wastes must be handled, maintained, and stored in accordance with both federal and state hazardous waste regulations. This fact sheet has offers regulatory guidance relating to waste management and disposal requirements for retailers and manufacturers of nicotine-related waste, as well as businesses or schools that may confiscate or dispose of nicotine-related waste.

### Types of Nicotine-Related Hazardous Waste

Under the Federal Resource Conservation and Recovery Act (RCRA) and the New Hampshire Department of Environmental Services (NHDES) Hazardous Waste Rules (Env-Hw 100-1300), nicotine waste is a highly regulated acutely hazardous waste with special on-site management and disposal requirements. The following are hazardous wastes that are prohibited from being disposed of as ordinary trash or through the drain:

- Expired, discontinued, damaged, confiscated or otherwise unsellable nicotine solutions. This includes prepackaged e-liquid cartridges, pre-packaged e-liquid refill containers, e-liquid, partially empty containers and nicotine solutions. Containers of pre-blended e-liquid that are completely empty, may be disposed of in the regular trash. *This waste may also be able to be managed under the less stringent Hazardous Waste Pharmaceutical Rule described below or sent for reclaim to a legitimate company that is able to recover and re-use the nicotine from these materials.*
- For e-liquid manufacturers – Stock containers of nicotine solution (including empty containers), cleanup materials (rags, towels, absorbents, etc.), gloves, and other protective equipment contaminated by nicotine solution. Rinse or wash water from cleaning out containers, cartridges, glassware and tools that were in contact with nicotine solutions or e-liquid and may **NOT** be discharged to sewer or septic systems and must be collected as hazardous waste.
- Spent e-cigarette heating coils, if not managed as scrap metal (could contain regulated chromium).
- Spent e-cigarette batteries, if not recycled (could contain regulated metals including reactive lithium).

### What Requirements Apply to Nicotine-Related Hazardous Waste?

All facilities that generate or accumulate hazardous waste must ensure that their wastes are appropriately handled and managed from cradle to grave. Requirements include obtaining an EPA ID # from NHDES, proper hazardous waste identification, proper waste storage, proper disposal and prevention of releases to the environment. Additionally, a facility that makes or stores hazardous waste will be classified as one of three sizes of generators: Small Quantity Generator (SQG), Full Quantity Generator (FQG), or Not a Generator (if waste is managed under Env-Hw 1300 below). Specific rules apply to each of these three classifications.

### Generator size determines which other rules apply – Env-Hw 500

FQGs have more waste and therefore more requirements for hazardous waste management under Env-Hw 500 including, in part: employee hazardous waste training, weekly inspections of hazardous waste storage areas, more stringent container management, and contingency plans. FQGs are also required to have an employee who is

certified as a New Hampshire Hazardous Waste Coordinator (HWCC) by attending a full-day training with NHDES staff. SQGs have less waste and are instead required to complete an SQG Self-Certification and Declaration of Compliance Form every three years. This form requires SQGs to review their hazardous waste management practices, conduct a self-inspection of their facility and certify compliance to NHDES.

### **Hazardous Waste Pharmaceutical Rule – Env-Hw 1300**

Some nicotine-related wastes (except for nicotine waste created during manufacturing) may be defined as “hazardous waste pharmaceuticals” and managed under the requirements of Env-Hw 1300 instead of Env-Hw 500. Managing those nicotine wastes under Env-Hw 1300 may allow a business to reduce their regulatory burden. If a business has **only** hazardous wastes considered pharmaceuticals that are managed under Env-Hw 1300, they may even be classified as “Not a Generator” and not be subject to the FQG or SQG requirements above. For more information regarding identifying those wastes that are hazardous waste pharmaceuticals and the rules that apply to them under Env-Hw 1300, please refer to Fact Sheets HW-38, “Hazardous Waste Pharmaceuticals Rule: Applicability and Resulting Category” and HW-39, “Hazardous Waste Pharmaceuticals Rule: Guidance for Healthcare Facilities”

### **Where can Nicotine-Related Hazardous Waste Be Disposed?**

All hazardous waste destined for disposal must be shipped to a permitted treatment, storage or disposal facility (TSDF), and the shipment tracked through the use of a uniform hazardous waste manifest. When shipping waste off-site, a hazardous waste transporter that is registered in New Hampshire must be used to transport waste from the facility to the TSDF. Any nicotine-related wastes classified as hazardous waste pharmaceuticals managed under Env-Hw 1300 that are delivered to a reverse distributor for credit or a recycler can be transported via common carrier. Nicotine-related hazardous waste cannot be disposed of in the regular trash or down the drain.

### **Ideas to Minimize the Amount of Hazardous Waste Generated:**

- Sell any product that is still safely usable at a reduced price. *If a product containing nicotine can still be sold, then it is still a product and does not need to be managed as a waste.*
- Return any product to the manufacturer or ship to a recycler. *In some cases, nicotine-containing products that cannot be sold and can be returned for credit or be reformulated may not count as waste.*
- Use loss prevention strategies to prevent spills and breakage. *Implement employee handling training, flooring options and other strategies for minimizing the likelihood of breakage and spills.*
- Discontinue mixing of house blends. *The mixing and use of house blend nicotine solutions can generate more waste than operating as a retailer only. This includes empty containers of nicotine solution, rinse or wash water from cleaning containers or tools, and paper towels and gloves from casual spillage and drips.*
- Manage heating coils and batteries under less stringent regulations. *If you are able to find recycling vendors, you don't need to manage these materials as hazardous waste, but instead as scrap metal (heating coils) or Universal Waste (batteries).*
- Consider a “Carry in Carry Out” policy in your facility. *Do not allow customers or even employees, to dispose of e-liquid containers, cartridges or cigarettes on site.*
- Manage e-liquid waste with no nicotine content as non-hazardous waste.

### **For More Information**

Questions regarding this fact sheet should be directed to the NHDES Hazardous Waste Management Bureau at [\(603\) 271-2942](tel:603-271-2942) or toll-free within New Hampshire at [866-HAZWAST](tel:866-HAZWAST) (M-F 8 a.m.-4 p.m.) or email [hwcomp@des.nh.gov](mailto:hwcomp@des.nh.gov). For a complete description of the requirements, refer to the New Hampshire Hazardous Waste Rules, Env-Hw 100-1300, available from [NHDES' website](#).

In addition to the state and federal regulations for nicotine contaminated materials and products, US Food and Drug Administration has additional requirements for [vape shops and manufacturers](#).