

Vaping liquids, e-cigarettes, and other nicotine wastes

Nicotine, the active ingredient in a range of products, including vaping liquids, e-cigarettes, gums, patches, and lozenges, is a toxic chemical that presents a risk to human health and the environment if improperly disposed.

Proper disposal requirements for businesses discarding these products are administered by the Minnesota Pollution Control Agency (MPCA), and the metropolitan counties of Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington (Metro Counties) and discussed in this fact sheet.

Schools and temporary living shelters may be eligible to manage nicotine wastes they collect from students and temporary residents under reduced requirements. See MPCA fact sheet #w-hw4-52, School wastes, at: <https://www.pca.state.mn.us/sites/default/files/w-hw4-52.pdf>.

How are business nicotine wastes regulated in Minnesota?

Step 1: Evaluate the type of business nicotine waste you generate.

Nicotine waste type:	Level of regulation:
Manufacturing and process wastes, rinsewater from manufacturing and process equipment and containers	<p>Fully regulated acute hazardous waste</p> <p>See the Step 2: Determine your generator size and requirements section below and MPCA fact sheet #w-hw2-02, P-list and F-list of acute hazardous wastes, at: https://www.pca.state.mn.us/sites/default/files/w-hw2-02.pdf.</p>
Prescription sprays and inhalers, e-cigarettes and other vaping devices, consumer-ready vaping liquids and nicotine additives	<p>Pharmaceutical hazardous waste</p> <p>Eligible for reduced management requirements.</p> <p>See MPCA fact sheet #w-hw3-33, Changes in pharmaceutical waste management, at: https://www.pca.state.mn.us/sites/default/files/w-hw3-33.pdf.</p>
Patches, gums, lozenges, tobacco, and nicotine-free vaping liquids	<p>Not hazardous waste</p> <p>May be managed in normal solid waste (trash) or sanitary sewer.</p>

Caution: Though eligible to be managed under reduced pharmaceutical hazardous waste standards, the batteries in many e-cigarettes and vaping devices can short and start a fire if improperly handled. In addition, the heating elements in these devices can be inadvertently activated when discarded and ignite a fire. The MPCA strongly recommends ensuring batteries are either removed or fully discharged before discarding e-cigarettes and vaping devices. If batteries are not removed, the MPCA recommends carefully packing vaping devices and e-cigarettes for disposal in such a way that they cannot be accidentally activated.

Step 2: Determine your generator size and requirements.

Your site's hazardous waste generator size controls how much fully regulated acute hazardous waste nicotine you may accumulate, how long you may keep it, and the other hazardous waste requirements you must meet.

Generator size is determined by counting the amount of fully regulated acute hazardous waste your site generates in a calendar month. When counting nicotine-containing waste, you only need to count the nicotine solution or residue in a container; you do not need to count the weight of the container itself or packaging.

If you generate in a calendar month:	Then:
ANY fully regulated acute hazardous waste nicotine BUT less than 1 kilogram (2.2 pounds or about 1 liter) of this waste AND never accumulate more than 1 kilogram of this waste at one time, not counting satellite accumulation	Your site is a Very Small Quantity Generator (VSQG), but must meet the employee training and emergency preparedness requirements for Small Quantity Generators (SQG)
ANY fully regulated acute hazardous waste nicotine BUT less than 1 kilogram (2.2 pounds or about 1 liter) of this waste BUT do accumulate more than 1 kilogram of this waste at one time, not counting satellite accumulation	Your site is a VSQG, but must meet all requirements of Large Quantity Generators (LQG) except the Biennial Report
More than 1 kilogram (2.2 pounds or about 1 liter) of fully regulated acute hazardous waste nicotine	Your site is an LQG

Note: Sites generating hazardous waste nicotine are ineligible to be Minimal Quantity Generators (MiniQGs).

Step 3: Obtain a Hazardous Waste Identification Number (HWID).

Any Minnesota business or government agency generating nicotine waste must have a Hazardous Waste Identification Number (HWID) – also known as an *EPA ID Number*.

To get your free HWID, use the MPCA's e-Services. See MPCA fact sheet #w-hw5-12, Notification of Regulated Waste Activity, at <https://www.pca.state.mn.us/sites/default/files/w-hw5-12.pdf>.

See MPCA fact sheet #w-hw1-03, Obtain a Hazardous Waste Identification Number, at <https://www.pca.state.mn.us/sites/default/files/w-hw1-03.pdf> for detailed guidance about HWIDs.

Step 4: Complete a hazardous waste generator license application.

Any Minnesota business or government agency generating hazardous waste nicotine must apply for an annual hazardous waste generator license.

The MPCA sends out application reminders each July. Metro County licensing schedules vary by county.

The MPCA's annual license fees are based on the amount of hazardous waste generated in the previous calendar year and vary according to generator size. Metro County annual fees vary by county.

Businesses or government agencies generating nicotine-containing waste outside the Metro Counties may apply for their license at any time. See MPCA fact sheet #w-hw5-13, Hazardous waste generator license application, at: <https://www.pca.state.mn.us/sites/default/files/w-hw5-13.pdf>.

Metro County sites must contact their county to determine their application process.

Step 5: Accumulate hazardous waste nicotine at your site.

Accumulate hazardous waste nicotine in containers that are compatible with the waste and are able to fully contain the waste, even when dropped or overturned. Keep containers closed with screw tops, latches, or snap lids except when waste is actually being added or removed. Do not rely on gravity to keep containers closed.

Label each fully regulated acute hazardous waste nicotine container with:

- The words 'Hazardous Waste'.
- A clear description of the waste.
- The accumulation start date – the day nicotine waste was first placed into the container.

Note: [Satellite accumulation](#) containers do not have an accumulation start date.

Keep your containers in an area that will hold all the contents of any containers if they leak. Ensure the floor under containers does not have any cracks or open floor drains. Allow enough room around each container to ensure you can get to it without having to move other containers or materials. Document weekly inspections of your containers except for [satellite accumulation](#) containers under control of the process operator.

If your site is a:	You may accumulate up to:	For up to:
VSQG	1 kilogram of fully regulated acute hazardous waste nicotine, not counting satellite accumulation	Indefinitely
LQG	Any amount of fully regulated acute hazardous waste nicotine	90 days from the accumulation start date

Step 6: Dispose or transport your hazardous waste nicotine for disposal.

Do not dispose of hazardous waste nicotine into the normal trash.

If your site is a:	Then you may manage your hazardous waste nicotine by:
VSQG	<ul style="list-style-type: none"> Self-transport to a Very Small Quantity Generator Collection Program (VSQGCP) that has agreed to accept nicotine waste. See MPCA fact sheet #w-hw2-51, VSQG collection requirements, at https://www.pca.state.mn.us/sites/default/files/w-hw2-51.pdf. <p>Or any of the management methods below.</p>
LQG	<ul style="list-style-type: none"> Ship to a permitted hazardous waste treatment, storage, or disposal facility (TSDF). You must use a uniform hazardous waste manifest. See Step 7: Document your hazardous waste shipments below. Ship to a legitimate recycling facility, such as a facility that processes e-cigarettes to remove nicotine for reuse or reuse yourself. You must use a uniform hazardous waste manifest if shipping. See MPCA fact sheet #w-hw2-42, Recycling hazardous waste, at https://www.pca.state.mn.us/sites/default/files/w-hw2-42.pdf. Discharge vaping liquid or rinsewater to the sanitary sewer. You must pre-notify the receiving publicly owned treatment works (POTW, commonly known as a sewage treatment plant) The POTW may prohibit or limit the discharge to their system. The POTW for most generators in Metro Counties is Metropolitan Council Environmental Services (MCES). See More information on page 4. Ship pharmaceutical hazardous waste nicotine through pharmaceutical reverse distribution as explained in MPCA fact sheet #w-hw3-36b, Reverse distribution of pharmaceuticals, at https://www.pca.state.mn.us/sites/default/files/w-hw3-36b.pdf.

Step 7: Document your hazardous waste shipments.

A uniform hazardous waste manifest is a standardized nationwide form. See MPCA fact sheet #w-hw1-07, Manifest shipments of hazardous waste, at <https://www.pca.state.mn.us/sites/default/files/w-hw1-07.pdf>.

If you are a VSQG and self-transport your waste, see MPCA fact sheet #w-hw2-53, Requirements for transporting Waste to a VSQGCP, at <https://www.pca.state.mn.us/sites/default/files/w-hw2-53.pdf>.

Step 8: Plan for emergencies & Step 9: Train your employees.

Your site's emergency planning and training requirements depend on your generator size and requirements from [Step 2: Determine your generator size and requirements](#) on page 1

If your site is a:	Then for:
VSQG, but must meet SQG employee training and emergency preparedness requirements	<ul style="list-style-type: none"> Hazardous waste emergency planning guidance, see: https://www.pca.state.mn.us/sites/default/files/w-hw1-08b.pdf Hazardous waste employee training guidance, see: https://www.pca.state.mn.us/sites/default/files/w-hw1-09b.pdf
VSQG, but must meet LQG employee training and emergency preparedness requirements	<ul style="list-style-type: none"> Hazardous waste emergency planning guidance, see: https://www.pca.state.mn.us/sites/default/files/w-hw1-08c.pdf
LQG	<ul style="list-style-type: none"> Hazardous waste employee training guidance, see: https://www.pca.state.mn.us/sites/default/files/w-hw1-09c.pdf

Step 10: Keep records.

Keep any hazardous waste-related record for a minimum of three years after the record is no longer active. See MPCA fact sheet #w-hw1-10, Keep hazardous waste records, at <https://www.pca.state.mn.us/sites/default/files/w-hw1-10.pdf>.

What is satellite accumulation?

Satellite accumulation of hazardous waste allows you to accumulate up to one quart of fully regulated acute hazardous waste nicotine without attaching an accumulation start date to the containers or counting them towards the on-site accumulation threshold of one kilogram. Count just the volume of the contents or residue in a container towards the one-quart limit. You may use a reasonable, documented estimation for the volume if it is impractical to measure.

Satellite accumulation containers must either be:

- Within the immediate working area of the process generating the waste and under the direct physical and visual control of the operator of that process.
- Inspected each calendar week and records kept, just like standard accumulation containers.

All hazardous waste container requirements discussed in this fact sheet, other than inspections and accumulation start date, apply to satellite accumulation containers.

What about ‘empty’ containers that held vaping liquid or nicotine solution?

Residue in containers that held fully regulated acute hazardous waste nicotine remain regulated until the containers have been *triple-rinsed*. The rinsewater from triple-rinsing also becomes fully regulated acute hazardous waste nicotine and must be counted towards your generator size, though it may be discharged to the sanitary sewer if the POTW is notified first. Do not throw apparently empty containers into the normal trash or recycling unless they have first been triple-rinsed.

More information

Guidance and requirements in this fact sheet were compiled from Minnesota Rules, Chapter 7045, and incorporate regulatory interpretation decisions made on November 13, 2019. To review Minnesota Rules, visit the Office of the Revisor of Statutes at <https://www.revisor.mn.gov/pubs>.

For information about waste minimization, contact the Minnesota Technical Assistance Program. The MPCA’s Small Business Environmental Assistance Program can offer free, confidential compliance assistance. Immediately report all hazardous waste spills that reach the environment to the Minnesota Duty Officer.

Metro County Hazardous Waste Offices

Anoka	763-324-4260
.....	https://www.anokacounty.us/
Carver	952-361-1800
.....	http://www.co.carver.mn.us/
Dakota	952-891-7557
.....	https://www.co.dakota.mn.us/
Hennepin	612-348-3777
.....	http://www.hennepin.us/
Ramsey	651-266-1199
.....	https://www.ramseycounty.us/
Scott	952-496-8177
.....	http://www.scottcountymn.gov/
Washington	651-430-6655
.....	https://www.co.washington.mn.us/

Minnesota Pollution Control Agency

Toll free (all offices)	1-800-657-3864
All offices	651-296-6300
.....	https://www.pca.state.mn.us/

Minnesota Duty Officer

Toll free	1-800-422-0798
Metro	651-649-5451

Small Business Environmental Assistance Program

Toll free	1-800-657-3938
Metro	651-282-6143
.....	https://www.pca.state.mn.us/sbeap/

Minnesota Technical Assistance Program

Toll free	1-800-247-0015
Metro	612-624-1300
.....	http://www.mntap.umn.edu

Metropolitan Council Environmental Services

Metro	651-602-4703
.....	https://metrocouncil.org/