

# Hazardous Waste Management and Reduction in Schools

Hazardous materials can harm human health and the environment, yet they may be part of daily life. This handout will help schools **reduce** the amount of hazardous materials on campus **and properly manage** those that are deemed necessary.

**Hazardous waste is any unwanted leftover substance that has properties, or contains chemicals, which are dangerous or could harm human or environmental health.** Hazardous materials could be toxic, ignitable, reactive, and/or corrosive. Hazardous waste is considered to have been “generated” when it is no longer usable or when it is put into a container for disposal.

- 1. Create a team to manage hazardous waste (HW) at your school.** This team can be part of a waste reduction committee, as described in the [ANR School Waste Reduction Guide](#). The team should include:
  - a. A school Administrator,
  - b. Lead custodial staff, and
  - c. A Hazardous Materials Coordinator (trained school or solid waste district staff, or a contractor, who advises on and coordinates the proper management of hazardous materials).
  - d. Optional: Students can be involved but should not handle hazardous waste.
  
- 2. Identify which hazardous materials are used and stored on school property.**
  - a. Common materials include light bulbs, paints, fertilizers, printer toners, cleaning supplies, medical equipment, refrigerants, drain cleaners, pottery clear coating glaze, concentrated acids, aerosol cans, and science department lab chemicals.
  
- 3. Inventory the hazardous materials entering the school and how they are being disposed.**
  - a. Develop a tracking sheet that includes columns for “chemical name of material,” “shortened name” (if there is one), “where it is stored,” “size of the container” (if applicable), and “number of containers.”
  - b. Update the inventory at least annually. Save each inventory as a new file so you have copies of prior inventories and can see how much of a material your school uses or does not use over time.
  - c. Only individuals properly trained to manage hazardous waste should be permitted to handle and inventory the materials.
  
- 4. Create a storage plan for hazardous waste.**

All hazardous waste handlers, including schools that generate and handle hazardous waste, are required to notify DEC of their hazardous waste activities and receive an **EPA number** for their site. To fulfill this requirement, schools that generate hazardous waste must complete and submit a [Vermont Hazardous Waste Handler Site ID form](#).

  - a. Keep hazardous waste stored in as few locations as possible and follow hazardous waste storage requirements. Contact VT DEC [Hazardous Waste Program](#) with questions.
  - b. Make sure the storage area is clean, dry, and free of obstructions.
  
- 5. Create a plan to limit the use and storage of hazardous materials.** Work with your local [Solid Waste Management Entity \(SWME\)](#) and/or a private contractor to create a plan to limit hazardous materials purchased, used, and generated by the school.
  - a. Identify dangerous chemicals that should not be present or used.

- b. Work with facility staff, repair personnel, science teachers, and art teachers to limit the use of dangerous chemicals. Educate staff on environmentally preferred alternatives to more hazardous materials.
  - c. Do not purchase more hazardous materials before auditing the current supply. Include in the audit: lab chemicals, art supplies, and facility maintenance materials such as cleaning products, paint, fluorescent light bulbs, etc. Plan for the proper disposal of materials or how to use them up.
- 6. Create school-wide standardized procedures** for how, when, and where collection and disposal of hazardous waste will occur.
- a. Set up collection days for staff to go through their hazardous material and bring it to a designated consolidation area for proper packaging and removal by a Hazardous Waste Contractor or SWME. When possible, work with a SWME to access their services, Household Hazardous Waste (HHW) events, and/or HHW facility.
  - b. This may include creating a secured hazardous waste storage area.
  - c. Never dump unknown and untreated chemicals down the drain.
  - d. Train personnel on the procedures and review them on a recurring basis to evaluate if they need updates or revisions.
- 7. Write and maintain a Hazardous Communication (HAZCOM) program for any hazardous materials use at your school and a [Chemical Hygiene Plan](#) for hazardous chemical use among school laboratory environments**, as required by VOSHA. Contact Shawn Barth at [Project WorkSafe](#) for assistance with writing these plans.
- 8. Educate Faculty.**
- a. Annually train teachers that handle hazardous materials.
  - b. Faculty and students who use these chemicals should learn and practice procedures necessary to minimize exposure to these substances.
- 9. Educate Students.**
- a. Science teachers using hazardous materials, such as lab chemicals, must train students before use.
  - b. Explain the connection between hazardous materials and health and environmental issues.
  - c. Incorporate lessons about hazardous products and hazardous waste awareness.
  - d. Explain how hazardous materials can be reduced, reused, and disposed of properly.
  - e. Offer suggestions for use of non-hazardous products for both school and home.

## RESOURCES

- Healthy School Environments: Chemical Use & Management, US Environmental Protection Agency [epa.gov/schools/toolkit-safe-chemical-management-k-12-schools](https://www.epa.gov/schools/toolkit-safe-chemical-management-k-12-schools)
- Hazardous Waste Teaching Resources, King County Solid Waste Division, WA [kingcounty.gov/depts/dnrp/solid-waste/programs/education/hazwaste.aspx](https://www.kingcounty.gov/depts/dnrp/solid-waste/programs/education/hazwaste.aspx)
- Universal Recycling in Schools, Vermont Department of Environmental Conservation <https://dec.vermont.gov/waste-management/solid/universal-recycling/schools>