

Hazardous waste management compliance guidelines

Introduction and scope

Arizona State University's academic and research laboratories, along with other university operations, such as, Facilities Management, generate a variety of hazardous chemical wastes. ASU is classified as a hazardous waste generator by the U.S. Environmental Protection Agency, or EPA, and the Arizona Department of Environmental Quality, or ADEQ. As a hazardous waste generator facility, ASU is required to comply with a number of hazardous waste laws and regulations. Environmental Health and Safety is responsible for coordinating an effective hazardous waste management program. The primary objectives of the program are to protect human health and the environment and insure compliance with university, local, state and federal hazardous waste regulations.

University hazardous waste management programs can be somewhat complex and confusing because of the enormous variety of hazardous waste generated; it is the responsibility of each individual university generator to comply with accumulation requirements. The following guidelines have been prepared for university personnel to facilitate proper hazardous waste management and insure compliance with applicable hazardous waste laws and regulations, particularly individual site accumulation requirements.

Requirements

Waste determinations

State and federal hazardous waste regulations specifically require the person who generates a waste to determine if the waste is a hazardous waste by using the following methods: Determine if the waste is listed as a hazardous waste in the regulations – [see listed wastes](#); or, if the waste is not listed as a hazardous waste in the regulations, determine if the waste exhibits any of the characteristics of a hazardous waste, i.e., ignitability, corrosivity, reactivity or toxicity, by either: testing the waste according to approved EPA methods or according to an equivalent approved method; or applying knowledge of the hazard characteristic of the waste in light of the materials or the processes used.

For your convenience, **consider all waste chemicals and chemical formulations (abandoned, used, out dated, or otherwise waste-like chemicals and formulations) as a hazardous waste unless the particular waste has been determine not a hazardous waste by EHS.** Contact EHS for technical assistance at 480-965-1823.

State and federal regulations regard certain chemicals as acutely hazardous wastes. These chemicals exist on a list – [see acutely hazardous waste list](#) – and must be handled separately. Chemicals which exist on this list must be reported immediately to EHS at the point that they become a waste. No more than a total of one quart, at any time, of one or in any combination of

all the chemicals on this list are allowed to remain in the laboratory once the chemicals become waste.

Whenever there is a doubt about a waste being a hazardous or non-hazardous waste, contact EHS for technical assistance at 480-965-1823. **EHS will not accept unknown wastes**, contact EHS for assistance identifying unknowns. Disposal containers, labeling, hazardous waste tags, segregation and scheduling of pickups must all be managed in an appropriate manner.

Disposal containers

Containers holding hazardous waste must be in good condition, non-leaking and compatible with the waste being stored. The container must always be closed during storage, except when it is necessary to add waste. Hazardous waste must not be placed in an unwashed container that previously held an incompatible waste or material. Incompatible wastes must not be mixed or stored in the same container. If a container holding hazardous waste is not in good condition, or if it begins to leak, the generator must transfer the waste from this container to a container that is in good condition, or manage the waste in some other way that prevents a potential for a release or contamination. A storage container holding a hazardous waste that is incompatible with any waste or other materials stored nearby must be separated from the other materials or protected from them by means of a partition, wall, or other device. One-gallon glass hazardous waste containers with screw top lids are available at no charge to university personnel from EHS. In addition, the original chemical container can serve as a waste container as long as the above requirements are met. Containers may exceed one-gallon as long as they meet the above stated requirements. However, containers in excess of five gallons must have prior approval from EHS before being used as a hazardous waste storage container. Contact EHS to check the availability of larger containers.

Container labeling

While hazardous waste is being accumulated, the container holding the waste must be marked with the words **hazardous waste** and with words that identify the contents of the container. For the purpose of waste determination, a complete inventory of wastes being accumulated in the container must be kept with the container. This can be accomplished by using hazardous waste tags available through EHS. If the original container is used for waste disposal, the words **hazardous waste** shall be legibly written with a permanent marker above or next to the chemical name. If the container is used for a waste different from the original contents, the original label must be removed or rendered illegible. Again, hazardous waste must not be placed in any container that previously held an incompatible waste or material. The container must also be marked with the hazard associated with the waste such as, flammable, corrosive, toxic, etc.

Hazardous waste tags

Hazardous waste tags must be filled out by the waste generator. The waste tags are used by EHS personnel to identify waste containers and determine waste compatibilities. Improper or inaccurate tagging could present a serious safety threat to EHS personnel handling these wastes. EPA and ADEQ review the tags to determine the university's compliance with hazardous waste regulations. Inadequate or incorrect information on waste tags may result in the container not being picked up. Please make certain the waste tags are complete, accurate and legible to avoid having to reschedule a pick-up. The following information must be included on the tags:

Chemical name: Use full chemical name, not formulas. Product names or trade names are acceptable if the manufacturer's name and address is supplied with the material. Also, indicate the concentration of the chemical used in percent, molarity, ppm, etc.

Amount: Give total volume or weight of each chemical in the container.

Volume %: List percentage of the total volume of each chemical in the container.

Generator: List name of the individual responsible for preparing the waste and completing the waste tag.

Phone: Supply a telephone number at which the generator can be reached during normal university hours. Hours are 8am - 5pm.

Date: Mark the date on which the waste container is ready for pick-up.

Department: Identify the university department with which the generator is affiliated.

Building and room: List physical location where the waste is being held for collection.

Category or hazard: Choose the appropriate category and hazard descriptions and write it in the category and hazard section. Common hazards include: flammable, corrosive, oxidizer and toxic. Use the hazard that best describes the waste. The hazards associated with a chemical can be found on the Safety Data Sheet, or SDS.

pH: The pH of the solution is required for aqueous wastes. pH can be taken using pH paper or a pH meter.

Segregation

As previously stated, all chemicals are to be considered hazardous waste when disposed. It is the policy of the university that **no waste be disposed or discharged into the sanitary**

sewer. Whenever possible, chemical wastes should be collected and segregated by hazard category to ensure safe handling and to expedite disposal.

Scheduling and waste pick-up

Do not fill waste container beyond the bottom of the neck of the container. When the waste container is ready for pick-up and the waste tag has been completed, use the on-line hazardous [waste pickup request](#) or the link located on the EHS [website](#) to initiate the waste pick-up process. Waste is routinely picked up throughout the campus Monday through Friday. If you have waste in one location which totals more than 55 gallons in overall amount, or if you have a total of one quart of all acutely hazardous waste, please note that in the comments section of the request. Include the hazardous waste tag numbers on the pickup request.

Used oil

Used oil is collected and recycled. However, used oil must be kept as uncontaminated as possible. EHS requires oil to be kept separate from other chemicals, particularly solvents, metals, and pesticides. If the oil is contaminated, indicate so on the hazardous waste tag and it will be managed as a hazardous waste.

Penalties

Severe civil and criminal penalties can be imposed upon the generator and university for irresponsible and illegal hazardous waste management and disposal practices. These procedures have been designed to properly and economically manage the university's hazardous waste while complying with all applicable federal, state and local regulations. EHS is available for technical assistance and encourages all university personnel to utilize the service. Please contact EHS if you have any questions regarding responsible hazardous waste management or need additional information or assistance in managing your hazardous waste.

Applicable regulations

40 CFR Parts 260 through 271
A.A.C. R18-8-260 et seq.
EHS 401; Hazardous [Waste](#) Management

University documentation and manual

- [Arizona State University Chemical Hygiene Plan.](#)

Questions? Contact ASU Environmental Health and Safety at 480-965-1823 or email asuehs@asu.edu.

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