



Guidelines for the Identification of Chemical Storage Tanks

Purpose: The purpose of these guidelines is to identify existing and planned chemical storage tanks and containers that hold 55 gallons or more in order to assess the potential for spills and releases, and to incorporate these containers and tanks into the various safety and training requirements of Preparedness, Prevention and Contingency (PPC) Plans and the Storage Tank Management Program.

Chemicals are stored at various locations throughout the University such as in maintenance facilities and shops, testing laboratories, landscape shops, and agricultural operations, usually in small containers, but occasionally in tanks. Chemicals that are stored improperly may be released into the environment. By identifying these sources, good practices, such as training, storage, and inspections can be used to help reduce the risk of spills and releases, and to mitigate the environmental impacts of spills and releases. In addition, there are regulatory requirements that must be satisfied.

Reference: The University is required by Federal Clean Streams Law and by the PaDEP (25 Pa Code Chapters 91 and 245, and “Guidelines for the Development and Implementation of Environmental Emergency Response Plans) to ensure that chemicals are properly handled and stored, personnel are trained, and that spills and releases are cleaned up.

Definition: A regulated substance is defined as an element, compound, mixture, solution or substance that, when released into the environment, may present substantial danger to the public health, welfare or the environment.¹ To determine if a substance is regulated under the PaDEP storage tank regulations, you may call EHS or check the following website:

<http://www.depweb.state.pa.us/landrecwaste/cwp/view.asp?a=1240&Q=453631&landrecwasteNav=|30786|30715|>

¹*Regulated substance—*

(i) An element, compound, mixture, solution or substance that, when released into the environment, may present substantial danger to the public health, welfare or the environment which is one of the following:

(A) A substance defined as a hazardous substance in section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C.A. § 9601) but not including a substance regulated as a hazardous waste under Subtitle C of the Resource Conservation and Recovery Act of 1976 (42 U.S.C.A. § § 6921—6931).

(B) Petroleum, including crude oil or a fraction thereof and hydrocarbons which are liquid at standard conditions of temperature and pressure (60°F and 14.7 pounds per square inch absolute), including, but not limited to, oil, petroleum, fuel oil, oil sludge, oil refuse, oil mixed with other nonhazardous wastes and crude oils, gasoline and kerosene.

(C) Other substances determined by the Department by regulation whose containment, storage, use or dispensing may present a hazard to the public health and safety or the environment, but not including gaseous substances used exclusively for the administration of medical care.

(ii) The term does not include the storage or use of animal waste in normal agricultural practices.

Aboveground storage tanks may be regulated by the PaDEP if they meet the following definition: One or a combination of connected stationary tanks with a capacity in excess of 250 gallons, which contain(s) regulated substances. The term includes tanks which can be visually inspected from the exterior that are located in an underground area.

These aboveground storage tanks are exempt from regulation by the PaDEP:

- Tanks used for the storage of products which are regulated under the Federal Food, Drug, and Cosmetic Act
- A tank of 1,100 gallons or less in capacity located on a farm used solely to store or contain substances that are used to facilitate the production of crops, livestock, and livestock products on the farm
- Tanks used to store propane gas
- Tanks containing radioactive materials or coolants that are regulated under the Atomic Energy Act of 1954
- Tanks regulated under the act of May 2, 1929 known as the Boiler Regulation Law
- A tank that contains a de minimis concentration of regulated substances
- Portable 330-gallon totes (IDC tanks)

Underground storage tanks may be regulated if they meet the following definition: One or a combination of connected tanks (including underground pipes connected thereto) which contain(s) regulated substances and the volume of which (including piping) is 10% or more beneath the surface of the ground.

These underground storage tanks are exempt from regulation by the PaDEP:

- Septic or other subsurface sewage treatment tanks
- Stormwater or wastewater collection systems
- Flow-through process tanks
- An underground storage tank with a capacity of 110 gallons or less
- Tanks containing radioactive materials or coolants that are regulated under the Atomic Energy Act of 1954
- A wastewater treatment tank
- An underground storage tank that contains a de minimis concentration of regulated substances

Procedure: All chemical storage tanks and containers that hold 55 gallons or more that meet the requirements listed above are required to be identified to the Department of Environmental Health and Safety (EHS). Planned storage tanks must be identified to EHS before being placed into service. Facilities storing chemicals in these quantities will be required to have a Preparedness, Prevention, and Contingency (PPC) Plan. The facilities will need to meet storage requirements (secondary containment and spill kits), meet training requirements (initial and annual refresher), perform inspections, and be subject to audits.

Responsibilities:

EHS is responsible for oversight of the Storage Tank Management Program and the Chemical Safety Program which ensure that chemicals are stored and handled properly, personnel are properly trained, chemical spills are properly cleaned up, and that Penn State meets all regulatory requirements.

Administrative units are responsible to ensure that all containers and tanks with a volume of 55 gallons or greater meeting the requirements listed above have been identified to EHS.

Safety officers are responsible for establishing a mechanism for determining if areas under their jurisdiction have chemical tanks and containers of 55 gallons or more that meet the requirements given above, and for annually reviewing their areas to determine if any new equipment or containers have been added.

Supervisors who have responsibility for chemical storage tanks and containers with a volume of 55 gallons or more, including principle investigators, are required to notify EHS in the event that their chemical storage changes prior to the change occurring, and to annually review their chemical storage and determine if their PPC Plan is accurate. They must ensure that their area meets the requirements of the PPC Plan for proper chemical storage, personnel training, inspections, spill/release reporting, and clean-up.

Individuals that work with chemicals in storage tanks are required to be trained annually in good chemical handling practices, and to know how to respond to chemical spills and releases.

July 11, 2005