


**UNIVERSITY OF TOLEDO
FACILITIES AND CONSTRUCTION**

Section:	Grounds	Procedure Number:	G-05
Subject:	Equipment Shop Waste Management Plan	Effective Date:	April, 1993
		Revised Date:	December 2019
Facilities Officer:		Reviewed Date:	December 2019

Standard Operating Procedure

Specific procedures will be implemented to minimize or eliminate contaminated wastewater into the automotive service facility Class V injection well.

Purpose

To promote a safe environment and to prevent the discharge of potentially hazardous materials to the sewage system.

Procedure

1. All current and future employees working with the Facilities Support Building will be trained on the location and methods of utilizing a Class V injection well by the Department of Environmental/Occupational Safety & Health or the Manager, Fleet/Grounds.
2. Training will be focused on the following procedures, as prepared by the Department of Environmental/Occupational Safety & Health:
 - I. Operations Likely to Involve Release of Undesirable Waste Fluids to the Class V Well.

The following operations or procedures have been found to be the safest and most effective in reducing releases of specified materials. Note: All processes should be performed at distances from drains or other areas to prevent transport of contaminants due to floor slope.

Fluid Removal, Including Oil, Antifreeze, Brake Fluid, Hydraulic Fluid, Gasoline, Gas & Oil Mixtures, Transmission Fluid.

Removal of fluids shall be performed by designated individuals within the Grounds Department. Fluids shall be drained to receptacles (pans) free of leaks and of sufficient capacity to collect the fluid from the vehicle or equipment in question. Upon completion of drainage, drain plugs shall be replaced securely before removal of receptacle, and any and all drips or runs should be wiped or cleaned up immediately. In addition, sufficient care should be taken to completely empty the spent fluid from receptacle to a designated storage vessel for disposal. (See Disposal). The spent fluids shall then be forwarded to storage in the Chemical Storage Facility until proper disposal or recycling can be arranged by the Department of Environmental/Occupational Health & Safety.

Fluid Filter Removal and Replacement

Nearly all systems containing fluids possess some means for filtering of dirt and impurities from the system. Upon removal of filter, special care should be taken to removal all the fluid from the system or to relieve pressure so as spillage or leakage does not occur after removal. Filters should be allowed to drain their contents, to extent possible, to waste fluid receptacles for storage prior to disposal. (See Disposal). Oil filters, after drainage, should be placed uncrushed within the oil filter recycling drum maintained by Safety Kleen, located within the garage area. Gasoline filters and other fluid filters should be allowed to drain to the greatest extent possible to a designated storage receptacle (see Disposal) and then discarded to a solid waste receptacle outside the garage area.

Reusable filters or screens shall be rinsed or cleaned in such a way as to collect the hazardous components before release to the drainage system: either through washing in or above a waste receptacle (see Disposal) or through the use of a strain to remove harmful sediment before release to the sewer system.

Use of Solvents and Degreasing Agents

Solvents contained within automotive service are listed in the inventory on a separate page of plan. The difficulty with solvents is that they in themselves are hazardous and can be released to the environment, and through their solvent actions, can cause the release of other materials to the environment. This is the case with the degreasing of parts and equipment within an automotive service area. If at all possible, parts should be removed and cleaned at the parts washer maintained by Safety Kleen. Parts should be cleaned thoroughly and allowed to dry at the washer. If parts have to be left in place or entire pieces of equipment are being degreased, special care should be taken to control drippings and runoff through the use of grease and oil absorbents, as well as rags; being sure to dispose of these absorbent materials to their proper containers for later disposal. (See Disposal). The same procedure should be followed when using solvents for the freeing or lubricating of bound parts.

Applications of Greases and Other Lubricating Agents

When applying lubrication to external parts, trained individuals should follow manufacturer recommendations to ensure proper lubrication while avoiding overuse of lubricants to the extent that they may drip from the surfaces in question. If dripping does occur, clean up should ensue using absorbent materials to remove excess.

Paint Product Usage

Paints and their associated materials are considered hazardous because of their solvent and pigment components. Special care should be taken in the form of a designated, well ventilated work area away from drains (sinks or sewers) for the mixing and clean up of paints when using solvents. When using water base paints, remove as much paint as possible from equipment, then dilute with large amounts of water before disposal. Any solvent material remaining should be disposed of through the Department of Environmental/Occupational Health & Safety. All solvent containing rags should be placed in the flammable rag disposal container to be emptied nightly.

Mixing of Materials

When mixing oil and gas, individuals should choose a well ventilated area away from drains and openings. Mixed fuel should be kept in a labeled container within the flammable storage cabinet.

Washing of Vehicles

When washing down vehicles and equipment, special care should be taken to limit the amount of contaminated sediment that is washed down the sewer system. If necessary, barriers in the form of proper distancing should be used, and then the remaining sediment should be swept up and disposed of according to its hazardous components. (See Disposal).

Special Projects

Special care should be taken when removing acid-containing batteries from vehicles and equipment. Again, such procedures should never be performed near or over drains and/or drainage pathways.

When testing fluids such as antifreeze, the removed fluid should either be put back into the vehicle or equipment or disposed of into proper disposal containers. (See Disposal).

General Care

Individuals should follow all manufacturer suggested procedures involved with safe handling and disposal of materials. The current preventative maintenance program for inspection of all drain plugs, seals, gaskets, and other equipment responsible for fluid system integrity will be followed rigidly.

Environmental Services

During routine cleaning of automotive service area, special care should be taken to eliminate deposition of material to the sewer system. Solids and sediments should be cleaned from the floor and placed in proper disposal receptacles. (See Disposal). Water should be used at a minimum for the cleaning of the shop floor (damp mopping with a non-toxic neutral PH detergent). There shall be a bi-annual cleaning of the grease and oil separator that filters the water entering the septic system.

Special care should be taken to assure the cleanliness in and around the entrances to the sewer systems. All cracks in the floor surfaces should be sealed in order to prevent inadvertent release to ground below or to the sewer system itself.

II. Storage

Storage of materials that could find their way to the sewer system should be as controlled as possible and kept away from drainage openings. Storage areas have been designated and their locations are noted on the accompanying diagram.

Flammables and Solvents

Store in approved and properly labeled safety cans within Flammable Storage Cabinet.

Store away from oxidizers (oxide) heat, flames and other possible sources of ignition.

Keep fire fighting and spill equipment nearby.

Fluids and Oils

Store in a separate room designated on the shop diagram away from the main automotive bays in area free from drainage to the sewer system.

Cleaning Materials

All cleaning materials shall be located within the janitor's closet in properly labeled containers. The floor drain in the room is diked and is used only for the disposal of non-hazardous cleaning materials and water.

EMERGENCY PHONE NUMBERS IN ORDER OF PRIORITY:

Campus Police – 530-2600

Environmental/Occupational Health & Safety – 530-3603

Heather Lorenz

Environmental Health & Safety Coordinator – 530-3603

III. Spills and Spill Procedure

Spills may result from damage to containers or equipment, overfilling, or loose plugging devices. All sink and floor drains will have the ability to be capped or plugged to prevent hazardous fluids from progressing into the septic system. In the unlikely event that a spill should take place, the following procedures should be followed:

Small Spills or Leaks Less Than One Gallon

1. If spill is traveling to drain, plug drain immediately to prevent contamination of septic system.
2. Assess the situation and determine what type of materials are involved.
3. Put on appropriate protective equipment (gloves).
4. See who is in area; elicit their help to prevent spreading using suitable absorbents available at spill stations (i.e. oil dry, spill pillows, etc.).
5. Clean up and remove all sorbet materials to proper waste containers for disposal. (See Disposal).

Larger Spills Greater Than One Gallon

1. If the individual suspects that he or she cannot control the spill, call Campus Police and they will alert the Department of Environmental/Occupational Health & Safety for response to the spill. (Such is the case with a large solvent spill.) If the spill is of a relatively non-toxic substance, such as oil, you may initiate clean up procedures.
2. Assess the situation and plug any drains that may catch the spill.
3. Attempt to right spilled container, plug hole if damaged, replace to an alternate container to catch the spill or for transfer of the material using 5 or 55 gallon transfer pump.
4. Soak up remaining portion of spill using appropriate absorbents (oil dry, spill pillows). Absorbents include: rags, vermiculite, oil dry, and spill pillows.
5. Dispose of clean up materials to proper disposal containers. (See Disposal)

IV. Disposal

Waste oil and hydraulic fluid may be disposed of in the container labeled waste oil. Brake fluid, antifreeze, and transmission fluid shall be collected in a container labeled as such. Waste gasoline, solvents, and paint related material will be collected within a container so labeled.

Area 1 Shelf and Floor Space:

- Motor oil
- Hydraulic Fluid
- Brake Fluid
- Transmission Fluid
- Grease and Lubricants
- Antifreeze

Area 2 Shelving Unit:

- Spray Cans
- Paint Cans (gallons and pints)

Area 3 Flammable Storage Cabinets (solvents):

- Painting Solvents (lacquer and paint thinners)
- Gasoline
- Acetone
- Naphtha
- Mixed Gas and Oil
- Sprays:
 - Carburetor Cleaner, WD-40, Liquid Wrench, Starting Fluid, Dry Gas

Area 4 Cleaning Supplies:

- Neutral Non-toxic Floor Cleaner
- Hand Soap
- Glass and Surface Cleaners

Waste fluids such as oil, hydraulic and brake fluid, antifreeze waste gasoline and solvents, and paint type wastes shall be collected and forwarded for disposal by the Hazardous Materials Coordinator or designee.