



# Gas Station and Convenience Store Hazardous Waste Management

Division of Waste and Hazardous Substances, Compliance and Permitting Section

## Commonly Generated Gas Station Hazardous Wastes

Gas stations have the potential to release petroleum products and other contaminants causing environmental and human health harm. Therefore, it is important to identify and prevent spills and releases. A fuel spill or other environmental incident could result in damage to the environment, create human health concerns, and lead to costly clean up, fines and damage to a company's reputation. Gas stations are regulated by multiple environmental programs for a variety of reasons. This fact sheet will only address one environmental regulatory program, hazardous waste, and outlines the proper management of hazardous waste generated at a gas station.

Typical hazardous wastes generated by a gas station include, but are not limited to, waste fuel (gasoline or kerosene), spent spill cleanup absorbents, spent filters and catchment basin waste. Hazardous wastes may also be generated when fuel storage tanks are serviced. In addition, for gas stations that have a convenience store, hazardous wastes may be generated in the store. Hazardous wastes generated within a convenience store include, but are not limited to, spent fluorescent lamps, used oil, used electronics, waste aerosol cans and nicotine products. This fact sheet will cover each of these commonly generated hazardous wastes. Any gas station generating hazardous waste is subject to Delaware's requirements covering the generation, transportation, and management of hazardous waste. Delaware's *Regulations Governing Hazardous Waste* (DRGHW) can be found at [regulations.delaware.gov/AdminCode/title7/1000/1300/1302/](https://regulations.delaware.gov/AdminCode/title7/1000/1300/1302/)

Each gas station site falls into a hazardous waste generator category, determined by the amount of hazardous waste generated in a calendar month. The regulatory requirements the site must meet are determined by the generator category. For additional guidance on hazardous waste management, please refer to the [Basic Business Guide to Hazardous Waste Management](#) fact sheet, as well as DRGHW.

It is the responsibility of the gas station owner/operator ("generator") to make accurate hazardous waste determinations at the time a waste is generated (see §262.11). Be aware, while awaiting results from a hazardous waste determination analytical test, wastes must be managed in accordance with the hazardous waste regulations applicable to site's hazardous waste generator category until the waste is proven to be non-hazardous.

## Human Health and Environmental Concerns

Gasoline is composed of over 150 different chemicals, with the four most commonly identified as toxic to humans being benzene, toluene, ethyl benzene, and xylene (BTEX). When people dispense gasoline into cars or containers, vapors escape into the atmosphere and can be inhaled, with the gasoline itself possibly deposited on skin. In addition, gasoline evaporates quickly and pollutes the atmosphere, while a single spark can ignite gasoline vapors. Chemicals, known as volatile organic compounds ("VOCs"), such as benzene, react with sunlight and form smog in urban areas. Spills of gasoline can contaminate drinking water supplies – one gallon of gasoline into a drinking water supply can render one million gallons of water undrinkable.

## Fuel Filters

Fuel filters are used to remove contaminants such as small particles from fuel prior to it being dispensed. Filters are located in all fuel dispensers (diesel, gasoline, kerosene, etc.). Fuel filters are generally replaced at gas stations multiple times a year. Spent fuel filters are likely to be ignitable and/or contain toxic chemicals such as benzene. Therefore, spent fuel filters are typically hazardous waste.

Non-terne plated metal fuel filters that have been drained for a sufficient period of time to remove all free-flowing liquid meet the definition of scrap metal, and when legitimately recycled are exempt from regulation as hazardous waste. If spent fuel filters are sent for scrap metal recycling, the generator is required to document proof of legitimate recycling. Legitimate recycling is a term defined in §260.43. However, if the generator does

not, or is unable to manage spent fuel filters in accordance with the described scrap metal exemption, the generator must make a hazardous waste determination and manage the spent fuel filters appropriately; this includes storing the spent filters in a manner which prevents releases of contaminants to the environment.

## Waste Fuel

Any waste fuel (gasoline or kerosene) that is to be disposed of (e.g., drained from a fuel filter or contaminated) will need to be managed as hazardous waste due to its potential ignitability and toxicity characteristics. However, waste fuel may be reused as long as the fuel is not contaminated and does not require prior processing. Also, while diesel fuel is not a hazardous waste in itself, when contaminated, its fuel value can often be recovered through use of a legitimate recycler.

## Spill Cleanup Waste

Prevention of spills is always better than a subsequent cleanup. Prevent spills by having up-to-date work practices, providing adequate employee training, and having clean and well-maintained fuel pumps. Keep spill cleanup materials (a “spill kit”) in an easily accessible place with clear labels so it is ready for use in the event of a spill. Because most gas stations will be designated as a very small quantity generator of hazardous waste (VSQG) and are not required by regulation to create a spill management plan for hazardous waste releases, the best management practice is to create one. Having a spill management plan and training employees in its procedures, helps to ensure an effective response to spills, as employees are familiar with how to respond. Additionally, it is a good idea to post signs outlining cleanup procedures and have emergency contact information posted by the spill kit.

Spills of fuel need to be promptly and properly cleaned up. Larger spills are to be reported to 800-662-8802 and may be subject to the additional reporting requirements of [7 Del Admin Code 1203 Reporting of a Discharge of a Pollutant or Air Contaminant](#). The spill must be contained to prevent its spread and spill absorbents from a spill kit immediately applied to soak up as much of the spill as possible. Waste from spill cleanup (i.e., the spilled material, absorbents used to soak up the spill, and other cleanup supplies) typically require management as hazardous waste, as these wastes frequently exhibit one or more hazardous waste

characteristics (e.g., benzene identified by the hazardous waste code of D018). Therefore, it is a generator’s responsibility to make an accurate hazardous waste determination, as explained in §262.11. Once an accurate hazardous waste determination is made, all hazardous waste must be transported by a Delaware permitted hazardous waste transporter for management at a permitted hazardous waste facility. Contaminated absorbents that are non-hazardous may be eligible for disposal in a solid waste landfill. When disposing of this special solid waste in Delaware, approval must first be obtained from the Delaware Solid Waste Authority (DSWA). Until permission is obtained from DSWA, it is necessary to store the waste separate from the routine solid waste generated at the site. Once approval is obtained, the special solid waste must be transported by a permitted Delaware solid waste transporter. Remember, failing to make a proper hazardous waste determination or ensuring appropriate management of all waste, can lead to environmental releases of waste and hazardous constituents, potential enforcement, and long-term liability.

Be aware that fuel spills must be cleaned up. It is not permissible to allow them to evaporate.

## Catchment Basin Waste

Catchment basins or spill buckets are placed around the fill pipes of underground fuel storage tanks. They work by catching spills that occur when underground fuel storage tanks are filled. In addition to collecting spilled fuel, catchment basins may also collect water, sediment and other debris. Catchment basins need to be routinely inspected and maintained, kept empty and clean. Any liquid or debris that accumulates in a catchment basin needs to be removed promptly. If the gas station operator determines that fuel collected in a catchment basin is usable, it can be placed into the underground fuel storage tank. However, contaminated fuels and other wastes removed from catchment basins require appropriate management, including an accurate hazardous waste determination. While dependent on the waste removed from catchment basins, these wastes are often determined to be a hazardous waste.

## Fuel Storage Tank Waste

A hazardous waste determination is required for water removed from fuel storage tanks. If for example, the water exhibits one or more hazardous

waste characteristics, it must be managed as a hazardous waste. Any solids removed from fuel storage tanks during maintenance may also exhibit a hazardous waste characteristic. As with the water, removed solids must be managed as hazardous waste or the generator must be able to demonstrate the solids are a non-hazardous waste or otherwise exempt from regulation as a hazardous waste.

Should you ever find fuel in the fuel storage tank sump, immediately contact DNREC's Tank Compliance Section (TCS) at 302-395-2500 and request to speak to a compliance officer. If the TCS cannot be reached, call the 24-hour complaint and spill notification line at 800-662-8802 and report the problem.

### Gas Station Convenience Store Waste

Some gas stations also have convenience stores, which may generate hazardous waste such as, spent lamps, waste aerosol cans, used oil, waste electronics or nicotine products.

Non-usable fluorescent lamps, even low-mercury ("green tip") lamps, contain mercury and pose a hazard to human health and the environment when improperly managed (i.e., thrown in the trash). Fluorescent lamps that exceed the regulatory limit for mercury can be managed as universal waste or as hazardous waste. Managing fluorescent lamps under the Universal Waste Rule as opposed to the hazardous waste regulations allows generators more flexibility, while encouraging waste recycling. For an overview of waste lamp management, please see our [Waste Lamp Management](#) and [Universal Waste Management](#) fact sheets.

Used oil may be generated from lubricating convenience store equipment such as refrigerators. Used oil often contains hazardous contaminants, such as flammable fuels, lead, and other toxic metals. However, used oil directed to a recycler does not need to be managed as a hazardous waste and has specific management standards which are outlined in the [Used Oil](#) fact sheet.

Another common hazardous waste generated at convenience stores is electronic waste ("e-waste"). DNREC recommends recycling all electronic waste. Guidance on e-waste can be found in the [Electronic Waste Management](#) fact sheet.

Convenience stores may also generate waste aerosol cans. Many cleaners, lubricants, paints,

solvents, and pesticides are packaged in aerosol cans, which contain both the product and a pressurized propellant. These products may have hazardous characteristics, such as ignitability or toxicity. While still a hazardous waste, much like mercury fluorescent lamps, waste aerosol cans may be managed under the less stringent Universal Waste Rule. For an overview of the requirements, please see our [Aerosol Can Management](#) fact sheet.

In addition to the above wastes, nicotine-containing products that are no longer sellable can be hazardous waste. E-cigarettes, e-cigarette refill cartridges, e-juices, and electronic vaping items containing lithium batteries may all be hazardous waste, requiring special management. The CAPS has created the [Vape Shop & E-Cigarette Retailer Hazardous Waste Management](#) fact sheet to assist generators of these wastes with the proper management of this special waste stream.

This fact sheet is a summary provided as a courtesy to businesses. It is not intended as a substitute for 7 DE Admin. Code 1302, Delaware's *Regulations Governing Hazardous Waste* (DRGHW), Parts 260-266, 268, 273 and 279.

[regulations.delaware.gov/AdminCode/title7/1000/1300/1302/](https://regulations.delaware.gov/AdminCode/title7/1000/1300/1302/)



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