

## Section 6: Water Pollution

### This section will help you:

- Understand if you generate industrial wastewater;
- Understand where your wastewater goes;
- Make sure you meet requirements for floor drains;
- Properly dispose of industrial wastewater and meet requirements for discharging to sewers and septic tanks (where allowed); and
- Conserve water and prevent water pollution.

### 6.1 Introduction to Wastewater Issues

Wastewater is generated any time water gets flushed down a drain, washed into the street or onto the ground, or discharged into a septic system. There are three kinds of wastewater:

**Industrial wastewater** is all wastewater contaminated with materials from auto body shop operations. These materials include paint and other coatings, solvents, sanding dust, antifreeze, oil, and other automotive fluids. Industrial wastewater includes, but is not limited to, water from waterfall spray booths, waterborne coatings wastes, wet sanding, tools and equipment washing, work area washing, and car washing.

Industrial wastewater can pollute both surface water, like lakes and streams, and groundwater. Public drinking water supplies come from either surface water or groundwater. If your shop does not follow requirements for wastewater, there is a good chance you could contaminate your local drinking water. Even wastewater that is sent to a septic system or down the sewer to a municipal or county treatment plant can cause problems, if it contains certain materials that upset the treatment processes. Understanding wastewater issues will help you keep your shop from damaging your local water supplies.

**Domestic (or sanitary) wastewater** is generated from using bathrooms, washing hands, showering, and preparing food. Domestic wastewater is not the focus of this workbook. Do not flush any industrial wastewater down bathroom or kitchen sinks, toilets, showers, or other places designed for domestic wastewater.

**Stormwater** is runoff of rain and melting snow from pavement, roofs and other surfaces. The runoff can pick up oil, fuel, heavy metals, coating materials, solvents and other materials from pavement and roofs depositing them directly into storm drains and streams, rivers, lakes and groundwater. It is important to prevent and clean up spills, and to not dump wastewater and materials into storm drains or on the ground. Store chemicals, materials and wastes so rain and snow melt do not wash away contaminants.

**When you are finished reading this section, you should be able to answer the following questions on the Self-Certification Checklist:**

<p><b>6.3</b> Does your shop generate any industrial wastewater?</p> <p><b>6.5</b> Does your shop discharge any industrial wastewater to dry wells, cesspools, galleys or other surface leaching systems?</p> <p><b>6.1</b> Does your shop have any floor drains?</p> <p><b>6.1</b> Are any floor drains located near vehicles or in areas where automotive fluids are stored or used?</p> <p><b>6.1</b> Are your floor drains either closed or approved for continued use by EPA?</p> <p><b>6.5</b> Does your shop discharge any industrial wastewater to a public sewer? If you discharge to a public sewer are you meeting the requirements of your local sewage authority?</p> <p><b>6.5</b> Does your shop discharge any industrial wastewater to a septic tank?</p> <p><b>6.6</b> Have you called your Health Department or US EPA to make sure that your septic tank is correctly designed and permitted for your wastewater?</p> <p><b>6.8</b> Do you post required signs prohibiting the discharge of industrial chemicals to non-industrial drainage outlets?</p> <p><b>6.9</b> Are concentrated auto body materials ever discharged with your wastewater?</p> <p><b>6.11</b> Do you ever sweep, blow, or wash “sweepings” down drains, sinks, or into water courses?</p> <p><b>6.12</b> Do you follow any priority best management practices to avoid water pollution? Have you implemented any water conservation practices?</p>	<p>Self-Certification Package</p> <p>Checklist Section 6 Water Pollution</p>
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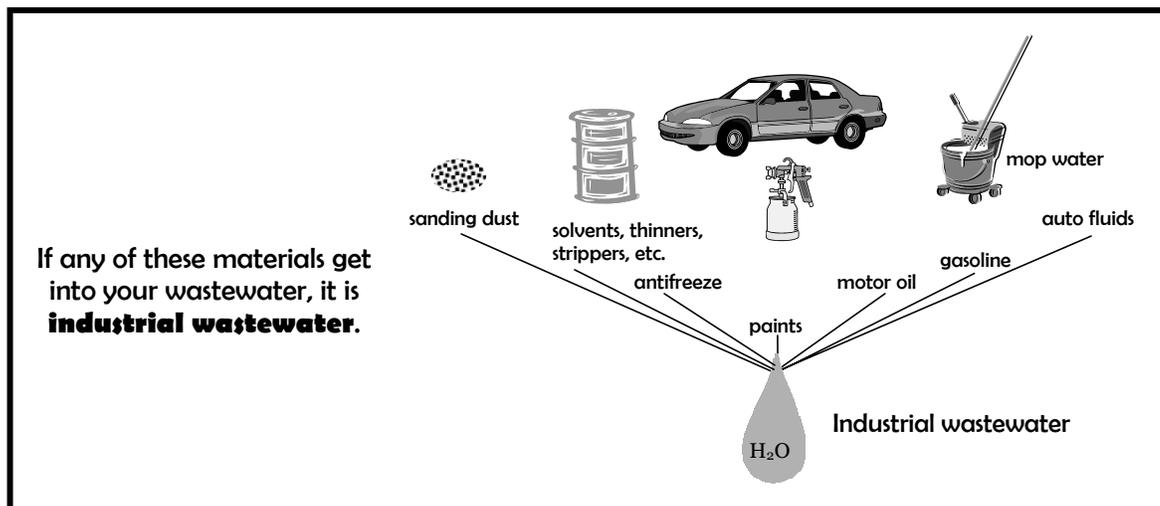
**6.2 What Is Industrial Wastewater?**

Auto body repair involves the use of many materials that can pollute water supplies, if they are not managed properly. Here are some of the materials from auto body shops that can contaminate Virginia’s ground water supply, if discharged to a conventional septic system:

- Paints and paint residue, solvents, thinners, strippers, degreasers, and parts washers;
- Gasoline, motor oil, and auto fluids (e.g., antifreeze, transmission fluid, power steering fluid, brake fluid, and hydraulic fluid) leaked from cars waiting to be repaired; and
- Sanding dust or residue from wet sanding.

The picture on the next page shows some of the different materials that can contaminate your wastewater. If any of these materials gets into your wastewater, then it is industrial wastewater. If you generate industrial wastewater, you have to meet special requirements that go beyond the requirements for sanitary wastewater (i.e., bathroom or kitchen wastewater). You need to understand

what goes into your wastewater and where it goes in order to know if you are following the law.



### 6.3 Where Does Your Wastewater Go?

Once your industrial wastewater goes down the drain, where does it end up? It might drain to a public sewer, septic system, dry well, cesspool, or surface leaching system. To find out, you can check your building's records, ask a plumber, or check with an environmental consultant. If your business is located in a rural area without central sewer, you may also contact EPA and/or the local Department of Health to see if those records are on file. In almost all cases, you can only legally discharge your industrial wastewater to one of two places:

1. The public sewer system

You must meet the requirements of the wastewater treatment plant.

2. A septic tank with an oil/water separator

**You must contact your local Department of Health and the US EPA Underground Injection Control Program [UIC] at (304) 234-0286 to make sure your septic system is designed to handle the wastewater you put into it, and to make sure you have the needed permits.**

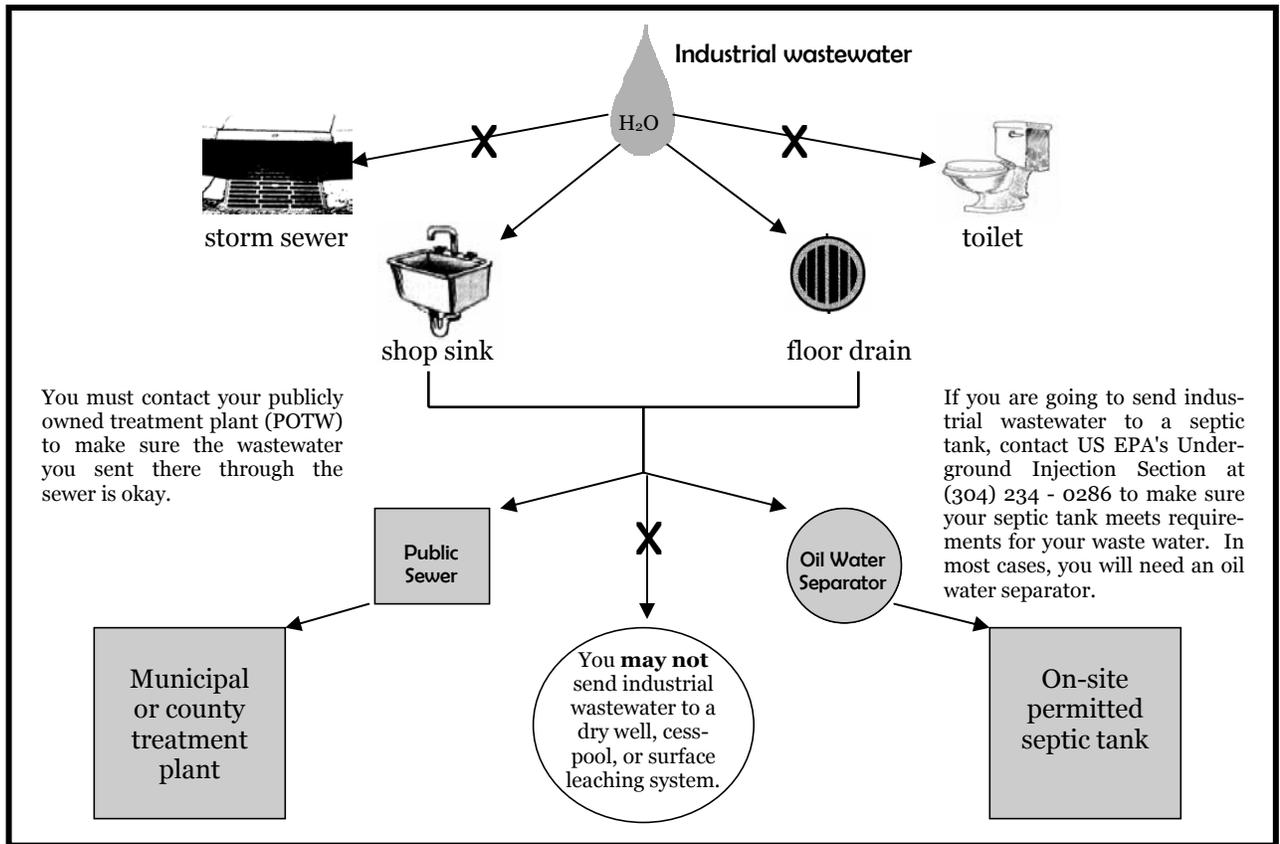


Discharge of industrial wastewater to dry wells, cesspools, galleys or other surface leaching systems is **not allowed**. You should also be aware that you must not construct new septic systems, cesspools, dry wells, or other motor vehicle waste disposal wells that receive industrial wastewater from auto body repair work.

The sections that follow will help you comply with regulations for managing your industrial wastewater.

- If you have any **floor drains**, whether or not they have been sealed, read **Section 6.3.1** to find out what you must do to comply with current laws.

- If your wastewater is discharged to a **public sewer system**, read **Section 6.3.2** to find out what you must do to legally connect to a sewer system.
- If your wastewater is discharged to a **septic tank**, read **Section 6.3.3** to find out what you must do to legally install, operate and maintain your septic system.



### 6.3.1 Floor drains

If your shop has a floor drain, they were legally required to have been closed by April 5, 2005, unless they met one of three conditions:

1. Floor drains are connected to a **public sewer**, and your shop meets the requirements of the local sewage authority. See **Section 6.3.2** for more information.
2. Floor drains are connected to a **permitted septic system with an approved, permitted oil/water separator**. See **Section 6.3.3** for more information on requirements for septic tanks.
3. Floor drains **ONLY drain clean water** and do not have the potential to drain water contaminated with oil, fuel, or any other materials from auto body shop operations. For example, if you have a floor drain that could only receive condensation from an ice machine, that is OK.

If you do not meet the conditions above, you must close up your floor drains. If you have any questions, **call the US EPA Underground Injection Control Program [UIC] at (304) 234-0286.**



### **Requirements for Closing a Floor Drain**



- Close your floor drain(s), either by hiring a licensed contractor, or by doing the work yourself. If you do it yourself, pour cement or bentonite into the drain, filling it to floor level.
- Contact the US EPA Underground Injection Control Program [UIC] at (304) 234-0286 to schedule an inspection to make sure your floor drain is properly closed.

### **Requirements for Using an Existing Floor Drain**



- Seek approval for continued use of open floor drains from the US EPA Underground Injection Control Program [UIC] at (304) 234-0286.
- Install an oil/water separator, and get approval to operate it from the US EPA UIC program.
- Contract with a waste hauling company to regularly come clean out the oil waste from the oil/water separator.
- Supply a copy of the signed waste hauling contract to the EPA UIC program. A waste hauling contract must be maintained as long as the floor drain is connected to an oil/water separator.

### **6.3.2 Public sewer system**

Sewer systems may receive both sanitary and industrial wastewater from auto body shops. If your shop's drains connect to a public sewer system, you must meet the following requirements.

#### **Requirements for Discharging Wastewater to a Public Sewer**

You must make sure that the hook-up of your drains to the sewer is legal and that you have a wastewater discharge permit, pretreatment permit, or other proper documentation allowing your shop to discharge to the local sewer.



- Find out if there are any pretreatment requirements that apply to your shop, by contacting the local sewage authority. The local sewage treatment plant that receives your wastewater may have requirements such as: limits on discharges to the sewer, prohibitions on certain discharges (such as solvents, gasoline, antifreeze, or waste oils), or that your shop get a permit to discharge. Check the phone book for the telephone number of your local sewage authority.
- Comply with all the requirements of the local sewage authority. If necessary, obtain a discharge permit, pre-treatment permit, or any proper documentation allowing discharge to the local sewer.
- **Don't** discharge any flammable, hazardous, or explosive materials (e.g., gasoline) into your floor drains. For a specific list of materials you may not discharge to the sewer, contact your local sewage authority.

### 6.3.3 Septic tank

Septic tanks are primarily designed to handle sanitary wastewater from sinks, showers, and toilets in your shop — not materials from your auto body work. If your shop is located outside the public sewer system, you may be prohibited from discharging industrial wastewater to your septic tank.

You may only discharge industrial wastewater to a septic system if your septic system is designed and permitted to handle the type of wastewater. Usually an oil/water separator will be part of the system. In order to make sure your septic system meets these requirements, call the US EPA Underground Injection Control Program [UIC] at (304) 234-0286.

#### **Requirements for Discharging Industrial Wastewater to a Septic System**

You must make sure that your septic system is constructed, operated and maintained so that it does not pollute groundwater.

- Obtain a permit from your local Department of Health and the US EPA UIC program for installing, operating and maintaining a septic system that is designed to handle the type of wastewater your shop generates.
- If you discharge wastewater with oil or petroleum products into your septic system, you must properly install, operate and maintain an oil/water separator unless otherwise directed by the US EPA UIC program.
  - Contact the US EPA UIC program for scheduling an inspection to verify the installation of an oil/water separator.
  - Clean out the oil/water separator periodically.
  - Determine if the sludge and overflow from the oil/water separator is hazardous, and properly dispose of the sludge and overflow based on the waste determination. See Section 3 on Hazardous Waste Determination for more information.
- Hire a licensed wastewater hauler to periodically pump your septic tank in accordance with your local requirements.
- Contact your local Department of Health and the US EPA UIC program when you need to repair your septic system. Only use licensed contractors when doing repair work.
- **Don't** pour grease, paints, caustic or oily liquids, fuels, anti-freeze, or motor oils into sinks or toilets, or floor drains that connect to the septic tank. These can kill the bacteria and/or plug your disposal system.
- **Don't** construct any buildings, or allow traffic over the drainfield and replacement area. Either action may result in costly damage and a violation of the law.



In addition to the above requirements, the best management practices on the following page are good ideas for managing and operating your septic system.

### **Good Ideas for Managing and Operating Your Septic System**

- Know the location of your septic system for repairs, pumping, and traffic and construction avoidance. Make a map or drawing of the location.
- Keep the septic system manhole location marked for easy accessibility.
- Keep your septic system records up to date:
  - Obtain a copy of the permit for your septic tank from the contractor or local Department of Health and the US EPA Underground Injection Control Program [UIC] if required. Keep permit copy on file.
  - File detailed records and receipts of all pumping dates, maintenance performed, inspections and any problems.
- Recover and recycle the oil from the oil/water separator with your shop's used oil. Recycling companies might take the oil for free, or might even pay you for the oil.

### **6.4 Other Wastewater Management Practices**

The best way to prevent water pollution is to keep your wastewater clean and free of contaminants from your auto body work.

#### **Requirements for Preventing Water Pollution**

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- Post signs prohibiting the discharge of industrial chemicals and/or industrial wastewater to bathroom or kitchen sinks, toilets, showers, shop wash basins, emergency showers, eyewash stations, or other non-industrial drainage outlets.
  - **Don't** discharge concentrated paints, fuels, oils or other fluids, solvents, thinners, strippers, cleaners (including concentrated soaps) or solid materials from sanding or auto body repair to wastewater.
  - **Don't** sweep, blow, or wash floor dirt, dust, and/or other debris ("sweepings") down open floor drains, sink drains, or any other access way to water sources.

In addition to the above requirements, the following Best Management Practices (BMPs) are good ideas preventing water pollution.

#### **Good Ideas for Preventing Water Pollution**

Points covered on the self-certification checklist are shown in bold.

- **Keep foreign materials out of your drains.**
  - **Use dry cleaning methods**, such as sweeping and vacuuming, when cleaning. Sweep floor with a broom or vacuum every day. Use a slightly damp mop for general cleanups, and after sweeping.
- Keep all auto body materials (including waste) protected from rainwater, to prevent polluted runoff.
- Train workers how to prevent water pollution as part of their job duties.
- **Don't** allow wastewater to collect and soak into the ground.