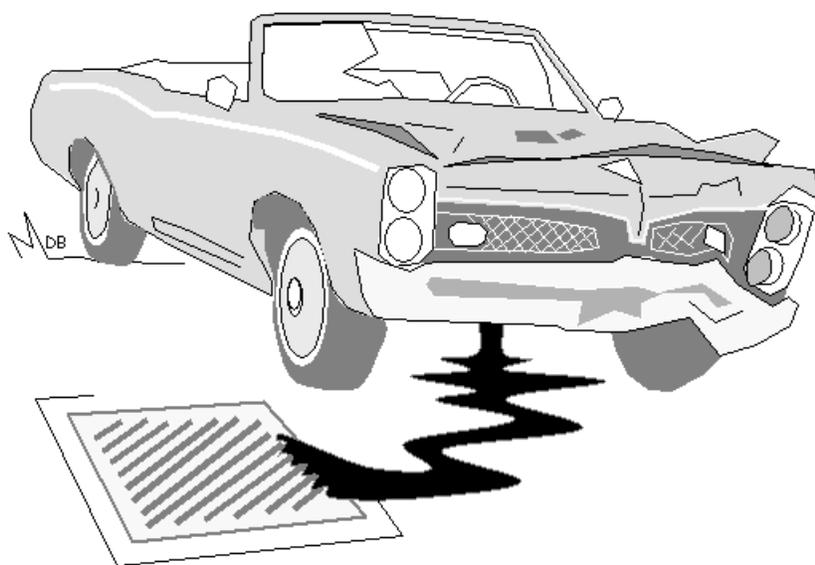


Scrap Metal, Used Auto Parts, --- *and the Environment* ---



Some Best Management Practices for Business

This pamphlet was prepared by the Southeast Regional Office of the Pennsylvania Department of Environmental Protection, in cooperation with the City of Philadelphia and the U.S. Environmental Protection Agency-Region 3. It does not cover every requirement that may apply to a particular facility, and so it should not be used as the only source of information. Other sources of useful information for business owners are described inside.

To accompany this pamphlet, the agencies have also prepared a "Compliance Screening Checklist." The Checklist contains more useful information, including a self-evaluation checklist and a list of telephone numbers where additional information may be obtained. For questions about this material, call the Southeast Regional Office of Pennsylvania DEP at 484-250-5970.

Introduction

The parts and materials from damaged or abandoned cars can be reused or recycled in many different ways. The dismantling and re-use of automotive parts has been called the number one recycling industry in America. Over 75 percent of the materials from cars are recycled. This reuse of these materials represents an important environmental benefit, because it saves natural resources, and it saves energy.

However, the business of dismantling automobiles can be a messy one. Whenever automobiles are dismantled, there is the potential for polluting substances to be leaked, dropped, or spread over the ground. This causes pollution of groundwater when these materials soak into the ground, or pollution of surface water when contaminants wash off the land surface into waterways. Pollutants may also be released to the air, or they may accumulate in the soil.

Improper storage or disposal of materials from the automobile recycling business can cause a serious pollution problem. Automotive fluids, in particular, require careful management in order to protect against spills. Non-liquid materials can also create serious environmental problems. For example, tires, stored in bulk, can be a hazard because of their potential to become fuel for a destructive fire.

The U.S. Environmental Protection Agency (USEPA) and the Pennsylvania Department of Environmental Protection (PADEP), along with local governments,

are interested in ensuring that all the people who operate in the auto recycling industry are doing what they need to do to prevent pollution. This includes being aware of the regulations that apply to you, and making an effort to comply with them. There may be permits that are required in order to conduct certain kinds of operations. Also, there are rules and guidelines for the proper handling and disposal of particular materials. The environmental agencies can perform inspections, to see for themselves whether any improper activities are taking place. Many times, agency inspections can also have a “compliance assistance” function, when the agency staff provide advice to businesses on ways in which their operations can be improved. The regulatory agencies are empowered to require compliance with the law, and also to assess penalties when people are not complying with the law.

Compliance with environmental laws makes good business sense. In the long run, compliance is less expensive than non-compliance. The cost of performing environmental cleanup, or “remediation,” is not small. Addressing environmental problems at their source is always the best way.

Stormwater Discharge Permits

Scrap recyclers and automotive recyclers are businesses that, by the very nature of their operation, have the potential to cause water pollution. Pollution can occur when oil or antifreeze is accidentally spilled or dropped onto the ground, and then percolates into the groundwater, or flows into a stream. Sometimes, spilled materials can lie on

the ground until the next rainstorm, when they are picked up and carried by the runoff into the nearest waterway.

The idea behind **stormwater permitting** is this: Certain industrial activities involve outdoor operations and/or outdoor storage of materials and wastes. If such a site is not kept clean, then stormwater runoff can pick up contaminants and carry them into waterways. Businesses have a responsibility to make sure that materials from their site will not get washed into the nearest storm drain or the nearest creek. Such businesses are expected to have good housekeeping, which includes cleaning up small spills when they happen, keeping certain items under a roof or a cover, keeping certain items inside a diked or curbed containment area. Every site should be kept clean, so that the only thing that can enter the storm drains is clean rainwater.



Federal regulations require that businesses that are involved in the recycling of materials must obtain a permit for the discharge of stormwater from the industrial area to waters of the United States. In Pennsylvania, the Department of Environmental Protection (PA DEP) issues these permits.

The required permit is called a “General Permit for the Discharge of Storm Water from Industrial Activities,” nicknamed “PAG-3.” Businesses who are required to apply should submit the appropriate “Notice of Intent” forms (NOI) to PADEP. The NOI is a short and relatively simple form. Upon properly submitting the NOI form, the business is deemed to be covered by the permit.

One important requirement of the General Permit for the Discharge of Stormwater is that the business needs to do an evaluation of their own operation. Written plans and instructions should be developed to describe the potential for pollution to occur, and the ways that polluting materials should be properly handled. These plans or instructions will go into a written manual for the employees of that business to use. This manual is called a “Stormwater Pollution Prevention Plan.” (In Pennsylvania, it can also be called a “Preparedness, Prevention, and Contingency Plan.”) By preparing and using such a plan, the business and its employees will be reminded of the things they need to do to ensure that water pollution is not occurring at their facility. Guidelines for the preparation of these plans are available from USEPA and from PADEP (see the references at the last page of this pamphlet).

Businesses who have stormwater permits should know exactly how their facility is drained. This includes being familiar with the slope of the ground surface, the location of any nearby waterways, and also the locations of all stormwater catch basins or stormwater inlets and where they drain to. In urban areas, some properties are graded so that stormwater flows out onto the street, and is captured

by the stormwater inlets along the curb of the street. Many curbside inlets in our cities drain directly to a stream. It is good to be aware of this, even though the stream may be miles away.

In some parts of Philadelphia (and other older towns and cities) the curbside stormwater inlets drain into so-called “combined sewers.” This term refers to a situation where sanitary sewage and stormwater flow through the same pipe, and its normal end point is a sewage treatment plant. When a recycling facility is located in a combined sewer area, the stormwater permit may not be required. The determination of whether or not this combined sewer exemption applies to a particular facility should be made by the permitting agency. In Southeast Pennsylvania, DEP has required all regulated facilities to obtain the permit, even when they are located in combined sewer areas.

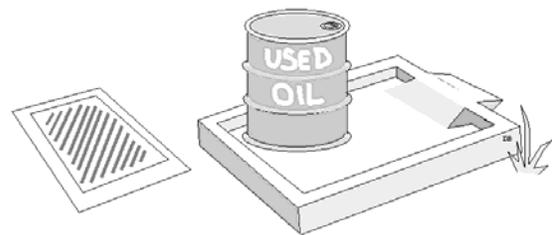
Automotive Fluids Management

One of the key tasks associated with handling damaged or abandoned autos is the draining of automotive fluids. This is one of the most critical jobs from the point of view of protecting the environment. Automotive fluids; including fuel, engine oil, coolant, transmission fluid, brake fluid, and windshield washer fluid, are all polluting materials. None of these fluids should ever be allowed to drain or drip onto the soil, or into a sewer inlet, and none of them should ever be discharged to a stream.

All fluids should be captured in drip pans or buckets, and then transferred right away to secure storage containers. The draining of fluids from a car, or

from a motor core or transmission core which has been separated from a car, should always be done in an area where there is pavement, to allow the cleanup of small spill and to prevent the contamination of soil.

After fluids are captured in a drip pan, they should be transferred to secure, intact containers for storage. These storage containers should have labels to identify their contents, and covers that can be securely fastened. They should be kept in an area where they are not in danger of being knocked over. They should also be kept in an area where accidental spills or leaks would be caught by a system of secondary containment. Secondary containment usually means pavement, with a dike, a curb, or a wall that is designed to block the flow of spilled material so that it can be cleaned up before it reaches a storm drain. In the simplified sketch below, the curb surrounds the used oil drum, and protects the storm drain in case any oil should spill from around the drum.



Ideally, both the automotive dismantling area, where fluids are drained, and the storage area where fluid containers are stored, should be under some kind of roof. Having these operations covered, to prevent contact with stormwater, can potentially save a lot of trouble with environmental damage and cleanup.

Waste Management

The Pennsylvania Solid Waste Management Act requires PADEP to regulate the handling of wastes that are generated by scrap recyclers and automotive recyclers. Some of the wastes that can be generated by these facilities include used oil, fuel, used batteries, used antifreeze, and used tires. If these materials are recycled or reused, then they may not be considered “waste.” However, if they are not reusable or recyclable, then they are “waste.” The regulations require that all wastes be managed in a way that does not result in a release of contaminants to the surface of the ground, or to waters of the Commonwealth.

Generally speaking, there are three broad categories of wastes according to the law: municipal waste, residual waste, and hazardous waste. Much of the waste that would be generated at a recycling operation is residual waste. Certain particular kinds of material may be hazardous waste, such as broken or leaking automotive batteries, spent cleaning solvents, or rags that have been soaked with such solvents. Generally, it is advisable to keep different kinds of wastes separate from one another. One reason for this is: *If a small amount of hazardous waste is mixed with a large quantity of non-hazardous waste, then the entire mixture would be considered hazardous waste.* This would make it much more expensive to dispose of the material. For most automotive wastes, there are a variety of possible disposal options, and the regulations take account of this.

Regardless of whether the waste is a hazardous waste or a residual waste, the

business that first creates or collects it is considered the “generator.” That person or business is responsible for ensuring that the waste is properly disposed. It is important to keep records (such as receipts) of the wastes that are taken away from your site. These records should document how much material was disposed, when it was disposed, who took it away, and who accepted it for reuse, recycling, or disposal. In the case of hazardous wastes, record keeping is an absolute requirement. Other requirements that apply to hazardous waste include labeling; time limits for on-site storage; having it transported by a licensed transporter; and having it delivered to a permitted facility for storage, treatment, or disposal.

Lead-acid batteries may be recycled or reused, but if they are not handled properly they may become a hazardous waste. They contain some environmentally harmful materials, including sulfuric acid and lead. All batteries should be properly stored pending appropriate reuse or recycling. Proper storage for intact lead-acid batteries includes storing them upright to prevent acid dripping out of the vent holes, storing them under a cover to prevent contact with rainwater, and stacking or storing them neatly to prevent physical damage. Any batteries that are cracked or leaking should be placed into a secure container to prevent contamination of the environment, and to prevent physical harm to people handling the batteries.

One particularly hazardous substance that can be found in some automobiles is **metallic mercury**. Mercury is a liquid metal that is used in very small quantities in some switches, such as

trunk light switches and anti-lock brake systems. Mercury is also a persistent environmental pollutant that is dangerous to humans and animals. It should not be allowed to escape into the environment in any amount. EPA recommends that people who are dismantling automobiles should separate and collect the mercury switches for proper disposal.

Mercury-containing devices such as those found in some automobiles are called a "universal waste." There are specific handling guidelines for these materials that can be obtained from the regional office of DEP. Mercury-containing devices should be stored in a leak-proof, clearly marked, closed container. Care should be taken to ensure that the switches do not break during handling. A licensed metals recycler that reclaims mercury can dispose of these switches. Contact PADEP for more information (see the telephone number on the cover page of this pamphlet).

Used tires present a special problem. They take up a lot of space, they may pose a fire hazard, and they can become a nuisance and a health hazard if allowed to accumulate. Mosquitoes breed in standing water, like the water that stands in scrap tires when they are lying around outdoors. With the spread of West Nile Virus, these kinds of mosquito-breeding areas have become a particular concern. Pennsylvania has regulations that limit the number of tires that may be accumulated at any single location without a permit. It is a good idea for any automotive recycler to have contacts with one or more companies who can legally receive and collect scrap tires, and to utilize their services as necessary

to keep your own site from becoming an illegal tire dump. Contact DEP's Waste Management program for more information.

Washing / Cleaning

Any process that uses water or steam to clean automotive parts is considered a source of industrial waste water. This waste water should be properly disposed; and this almost always means that the water should be drained to a sanitary sewer system. If runoff from a cleaning operation enters a stormwater drain, or runs straight into a waterway, then it is considered an unpermitted discharge of industrial waste, and is a violation of State law. If runoff from a cleaning operation runs across the unpaved ground without reaching a stream, this would also be a violation of the Clean Streams Law, because it is causing contamination of soils and groundwater.

If there are any floor drains or stormwater inlets on your property, then you should know where they drain to. Either PA DEP or the municipality (Phila. Water Department) should be able to help you make this determination. Plumbers' dye may be used to confirm the outlet of any drain. Some facilities have drains which carry the flow to an oil-water separator; and in some cases these oil-water separators discharge in turn to sanitary sewers. This can be an effective means of dealing with the industrial waste water problem, although such facilities (like anything else) require periodic maintenance. They also may require a permit from the local sewage treatment authority (in Philadelphia this would be the Water Department).

Facilities Near the River Bank

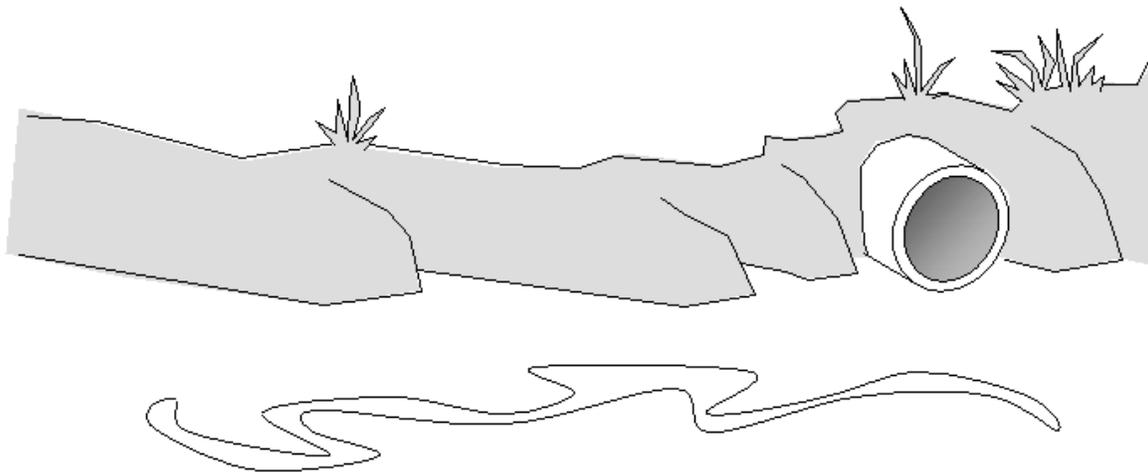
There are some auto salvage yards which happen to be located adjacent to a river or a creek. Such facilities have a special problem from the environmental point of view. They need to make sure that none of their car bodies or other materials can fall, tumble, or get pushed over the edge and into the water. To have anything fall into a river or stream from your business would be a violation of State law. When auto parts fall into the river, they become sunken hazards to river navigation, and continuing sources of pollution as they deteriorate in the underwater environment.

In order to ensure that such pollution of waterways does not occur, the DEP recommends that all piles of parts or other solid materials be kept at least ten feet away from the edge of the stream bank. It would be even better if this distance could be increased to twenty or thirty feet. The setback would protect against the possibility that materials may accidentally fall into the stream, and it would allow people with vehicles or

heavy equipment to move around behind the pile and keep the river bank clean. DEP expects each property owner, or the business owner, to keep the stream-bank clean, and to retrieve any material that may have fallen over the bank to the water, or to the water's edge.

Air Pollution Concerns

There are a number of ways in which recycling facilities need to be aware of their potential to cause air pollution. The most significant of these are listed on the enclosed “Environmental Compliance Screening Checklist.” The specific issues may vary from one business to another. All automotive operators who deal with air conditioning systems should be aware of the requirements for handling chlorofluorocarbons (CFCs), like freon. Producing visible dust, shredding or crushing cars, or producing visible smoke are all activities that may indicate the need for a facility to obtain an air quality permit.



Further information and contacts:

PA Department of Environmental Protection (PADEP)	484-250-5900 (main number)
Water Management	484-250-5970
Waste Management	484-250-5960
Storage Tanks Program	484-250-5900
Philadelphia Air Management Services	215-685-7580
Philadelphia L& I – C&I Fire Unit	215-685-3712
Complaints	215-686-2463
Philadelphia Water Department (scrap yard questions)	215-685-4948
U.S. Environmental Protection Agency	215-814-5141
Business Assistance Center	800-228-8711

- For information about the preparation of **Stormwater Pollution Prevention Plans** or Preparedness, Prevention, and Contingency Plans, check the following website: www.epa.gov/reg3wapd/stormwater or....call the Southeast Regional Office of DEP at 484-250-5970, and request a copy of the Department’s “Guidelines for the Development and Implementation of Environmental Emergency Response Plans.”
- **Several internet-based sources** are available where detailed guidance can be found describing how to address environmental concerns in the automotive recycling industry. Some of these are listed below:
- **Trade associations** can offer information and/or services to their members. Some websites that may be of interest are:
<http://www.parts.org>
<http://www.isri.org>
- **Assistance for small businesses**, at no cost and on a confidential basis, is available from the following source: The Environmental Management Assistance Program of the Pennsylvania Small Business Development Centers (SBDC) can provide easy to understand answers on regulatory compliance and technical assistance. See the website at <http://www.pasbdc.org/what/consulting/emap/default.asp>

There is also useful information available from DEP’s website at http://www.dep.state.pa.us/dep/deputate/airwaste/aq/small_business/small_business.htm

<http://ecarcenter.org/>

[This is a site that is maintained by the Automotive Recyclers Association.]

<http://www.epa.gov/compliance/assistance/sectors/motorvehicle.html>

[This contains EPA’s publications for the automotive sector.]

<http://cfpub2.epa.gov/clearinghouse/ECCAT/index.cfm>

[This is EPA's compliance assistance clearinghouse; it contains different materials than the ones found using the site above.]

<http://www.smallbiz-enviroweb.org/mid-atl/mid-atl-tech.html>

[This site describes technical assistance providers in the Mid-Atlantic states.]

http://www.phila.gov/streets/hazardous_waste.html

[This site has information about the City of Philadelphia's Household Hazardous Waste (HHW) Program and the typical materials accepted. Note that this program is for Residentially Generated Material ONLY. Propane cylinders are accepted at HHW events.]

This pamphlet was prepared by Pennsylvania Department of Environmental Protection (PADEP), Southeast Regional Office. Valuable assistance was provided by U.S. EPA, Region 3; Philadelphia City agencies; and the Pennsylvania Automotive Recycling Trade Society (PARTS). This pamphlet was updated in June, 2007. If you have questions, call David Burke at PADEP, 484-250-5822.