

P2-BMP for Auto Salvage Yards

POLLUTION PREVENTION

AND

BEST MANAGEMENT PRACTICES

FOR

AUTOMOBILE AND OTHER SALVAGE
FACILITIES

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EXECUTIVE SUMMARY

This Pollution Prevention and Best Management Practices (P2-BMP) document has been developed to assist operators of automobile and other salvage facilities in Broward County with their efforts to run an environmentally sound business. Running such a business means eliminating releases of hazardous materials, including oils, to the environment, and reducing the potential for such releases. Facilities run in such a way benefit the business operators, business owners, and the owners of the property on which the facility is located by minimizing or eliminating the substantial costs associated with regulatory fines and hazardous materials cleanup. More importantly, the general community of Broward County benefits from environmentally sound operations because releases of hazardous materials to the environment are minimized.

Three sections have been provided in this P2-BMP to assist operators of salvage yard facilities with running a more environmentally sound business. The first section provides an overview of the governmental regulatory requirements that may apply to salvage yard facilities in Broward County. The second section of this document describes additional measures that salvage yard operators may want to implement to further minimize the potential for release of hazardous materials to the environment. The third and final section provides the basic information salvage yard operators will need to prepare a facility pollution prevention plan. Such a plan not only describes the actions that will be taken at a facility to minimize releases of hazardous materials and wastes generated and provides a schedule for implementation, it also provides a means for measuring progress towards reaching pollution prevention goals.

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ABBREVIATIONS USED IN THIS REPORT

BCCO	Broward County Code of Ordinances
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFCs	Chlorofluorocarbons
CFR	Code of Federal Regulation
DEP	Florida Department of Environmental Protection
DOT	U.S. Department of Transportation
EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act (aka SARA Title III)
FAC	Florida Administrative Code
FR	Federal Register
F.S.	Florida Statutes
NPDES	National Pollutant Discharge Elimination System
OSHA	Occupational Health and Safety Act
P2-BMPs	Pollution Prevention and Best Management Practices
PPA	Pollution Prevention Act
RCRA	Resource Conservation and Recovery Act
SARA	Superfund Amendments and Reauthorization Act
USC	United States Code

INTRODUCTION

The Broward County Environmental Protection and Growth Management Department (BROWARD COUNTY) has developed Pollution Prevention and Best Management Practices (P2-BMP) for Automobile and Other Salvage Facilities to assist operators with their efforts to run an environmentally sound business. Running such a business means eliminating releases of hazardous materials, including oils, to the environment, and reducing the potential for such releases. Environmentally sound operations benefit business operators, business owners, and the owners of the property on which salvage facilities are located by minimizing or eliminating the substantial costs associated with regulatory fines and hazardous materials cleanup. More importantly, the general community of Broward County benefits from environmentally sound operations because releases of hazardous materials to the environment are minimized.

In the case of salvage yards, minimizing or eliminating releases of oil and other liquid hazardous materials to the ground and surface waters is especially important. Broward County's sole source for drinking water comes from the Biscayne Aquifer which underlies most of the county, and is only a few feet below the surface. Release of liquid hazardous materials including oil and gasoline to the ground or surface waters readily contaminates the Biscayne Aquifer. When one considers the number of businesses handling hazardous materials in Broward County and the potential for spills, if such businesses are not operated to minimize hazardous materials releases, over time the quality of the County's drinking water will be impacted.

Three sections have been provided in this P2-BMP to assist operators of salvage yards located in Broward County with running a more environmentally sound business. The first section provides an overview of all the governmental regulatory requirements that may apply to salvage yard facilities in Broward County. The second section of this document describes additional measures or pollution prevention best management practices that are recommended for facilities to minimize the release of hazardous materials to the environment. The third and final section provides the basic information salvage yard operators will need to prepare an optional facility pollution prevention plan. Such a plan not only describes the actions that will be taken at a facility to minimize releases of hazardous materials and wastes generated and provides a schedule for implementation, it also provides a means for measuring progress towards reaching pollution prevention goals.

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The OVERALL GOAL of this document is to DEVELOP A POLLUTION PREVENTION AND BEST MANAGEMENT PRACTICE FOR AUTOMOBILE AND OTHER SALVAGE FACILITIES OPERATING IN BROWARD COUNTY WHICH FACILITATES COMPLIANCE WITH ALL APPLICABLE ENVIRONMENTAL REGULATIONS, MINIMIZES WASTES, AND FOSTERS A POLLUTION PREVENTION ATTITUDE WITHIN THE INDUSTRY.

The Pollution Prevention Act of 1990 (PPA) establishes a clear national policy that pollution should be prevented or reduced at the source whenever possible. The Environmental Protection Agency (EPA) defines pollution prevention as "any effort to reduce the quantity of industrial, hazardous, or toxic waste through changes in the waste generation or production process at the source." The ability to reduce waste generation is somewhat limited for the salvage industry. However, the PPA also recognizes the advantages of other waste management practices, and establishes the following hierarchy for waste minimization implementation:

- "- pollution should be prevented or reduced at the source whenever feasible;
- pollution that cannot be prevented should be recycled in an environmentally safe manner whenever feasible;
- pollution that cannot be prevented or recycled should be treated in an environmentally safe manner whenever feasible; and
- disposal or other release into the environment should be employed only as a last resort and should be conducted in an environmentally safe manner."

Complying with environmental regulations and implementing pollution prevention techniques are complementary activities. Many pollution prevention practices are low-cost, low-risk alternatives to hazardous waste disposal. Most of the approaches do not require a great deal of sophisticated technology, and many facilities may already be implementing pollution prevention practices without realizing it. The P2-BMPs presented in this document have been developed to enable the automobile salvage facilities in Broward County to achieve compliance with federal, state, and local environmental regulations, prevent the release of chemicals to the environment, and develop a comprehensive Pollution Prevention Program. The P2-BMPs have been developed to meet BROWARD COUNTY's objectives, and to be practical and free of any undue technological or economic burdens to salvage yard operators.

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The P2-BMPs promote the use of good housekeeping measures, a preventive maintenance program, employee training in pollution prevention, and other pollution prevention techniques recommended for salvage yard operations. These programs can be applied to minimize the release of hazardous materials to the environment and the need to dispose of hazardous wastes. Since the most appropriate pollution prevention methods will depend on site-specific considerations, the P2-BMPs have built-in flexibility. Selection and implementation of cost-effective options are left up to each facility so that pollution prevention measures are based on facility needs and operator capabilities.

The Pollution Prevention and Best Management Practices (P2-BMPs) that follow are applicable to all types of automobile and other salvage facilities operating in Broward County. The P2-BMPs also apply to any other related industries that perform the same types of activities and are licensed as a hazardous materials facility within Broward County.

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INDUSTRY PROFILE

The salvage industry is involved with selling reusable parts, materials, fluids and coolants, etc. In the case of automobile salvage businesses, these parts, materials, and fluids are generally from used vehicles. Materials that are not resold are reused on site, as in the case of gasoline, are removed from the facility by a licensed waste hauler. Depending on the type of salvage facility, operations may include vehicle disassembly, draining fluids from vehicles, crushing vehicles, and storing miscellaneous materials, auto bodies, parts, drained fluids, batteries, etc. on site until they are sold, reused, or disposed of.

Important pollution prevention challenges faced by the salvage industry include preventing the release of liquid hazardous materials such as oils and lead-acid battery contents into the soils, groundwater, and surface waters, and the release of air conditioning refrigerants such as chlorofluorocarbons (CFCs) into the atmosphere. Contamination can occur at many stages of salvage operations. Soil, groundwater, and air contamination can occur during vehicle disassembly and fluid drainage operations. Contamination can also result from improper parts, fluids, and refrigerant storage. Table 1 lists some of the materials, fluids, and gases handled by the salvage industry and acceptable methods for their final disposition.

P2-BMPs OBJECTIVES, STRATEGIES, AND REQUIREMENTS

The P2-BMPs have been developed to achieve the following objectives:

- A** Facilitate compliance with all federal, state, and local environmental regulations governing the use, storage, generation, and disposal of hazardous materials and hazardous wastes within the salvage industry.
- B** Prevent the release of hazardous materials to the environment resulting from leaks, fugitive air emissions, accidents, or improper disposal.
- C** Encourage the preparation of a comprehensive Pollution Prevention Program for each facility in order to minimize releases of hazardous materials and maximize the recycling of reusable materials.

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TABLE 1. Appropriate Final Disposition of Materials, Fluids, and Gases Handled by the Salvage Industry

Waste Materials and Fluids	Appropriate Final Disposition
miscellaneous metals	recycle
gasoline	use in facility vehicles
engine oil	recycle
antifreeze/engine coolant	reuse or recycle
brake & transmission fluids	dispose of as hazardous waste
air conditioning refrigerants	recover, reclaim, or recycle
tires	sell for reuse/energy production; dispose of
engines	sell for reuse; recycle as scrap metal
miscellaneous parts	sell, recycle, dispose of
miscellaneous rubber	sell, dispose of
hydraulic oil	recycle along with waste oil
windshield wiper fluid	reuse; collect & resell
brake shoes not containing asbestos	recycle
brake shoes containing asbestos	dispose of
lead-acid batteries	collect & ship to a recycler
oil filters	drain, collect & recycle
air bag cartridges	sell; dispose of

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OBJECTIVE A: FACILITATE COMPLIANCE WITH ALL FEDERAL, STATE, AND LOCAL ENVIRONMENTAL REGULATIONS GOVERNING THE USE, STORAGE, GENERATION, AND DISPOSAL OF HAZARDOUS MATERIALS AND HAZARDOUS WASTES WITHIN THE AUTOMOBILE AND OTHER SALVAGE FACILITIES.

The following are the regulations that generally apply to salvage operations, but due to some variations in specific business practices, are not necessarily all applicable, or all inclusive:

The owner/operator is responsible for complying with all applicable requirements of the federal, state, and local government environmental laws and regulations. The majority of the laws and regulations that apply to salvage yard operators are listed below. Due to some variations in specific business practices, all are not necessarily all applicable, and this list may not be comprehensive. Specifics on what each of these laws or regulations require is provided in the following sections.

- Chapter 27, Natural Resource Protection, Broward County Code of Ordinances;
- Florida Administrative Code (FAC), Chapter 17-730, Hazardous Waste;
- Part IV, Chapter 403, Hazardous Waste Management Program, F.S.;
- Sections 403.75 through 403.769, F.S.;
- FAC, Chapter 62-710, Used Oil Management;
- 40 CFR Part 279, Used Oil Management;
- FAC, Chapter 17-711, Waste Tires;
- FAC, Chapter 17-150, Hazardous Substance Release Notification;
- Title III of the Superfund Amendments & Reauthorization Act of 1986 (42 USC section 11001, et seq.), also known as the Emergency Planning and Community Right to Know Act (EPCRA);
- Resource Conservation and Recovery Act (RCRA), 42 USC section 6901, et seq., as amended;
- Pollution Prevention Act of 1990 (PPA);
- Comprehensive Emergency Response, Compensation, and Liability Act (CERCLA), 42 USC section 9601, et seq.;
- Hazardous Materials Transportation Act, 49 USC section 1801, et seq.;
- 40 CFR Part 300.

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- FAC, Chapter 17-281, Motor Vehicle Air Conditioning, Refrigerant Recovery, and Recycling;
- Chapter 325.221-223, F.S., Certification Requirements for Equipment, Technicians, and Reclaimers; Recordkeeping Requirements; Sales Restrictions; Reclamation Standards; Substitutes Refrigerants; Service Practices; and Penalties for Non-Compliance.
- Final Rule - Small Appliances & Refrigerant Recovery by Scrap Metal & Landfill Operators, 58 FR 28660, May 14, 1993; and
- Section 608 of the Clean Air Act of 1990, as amended.

BROWARD COUNTY REQUIREMENTS

A1. The owner/operator is responsible for identifying all hazardous materials used, processed, stored, or handled at the facility and for maintaining updated qualitative and quantitative records of these materials at the facility.

Records on all hazardous materials handled on site including amounts stored, reused and hauled away shall be maintained in facility records (Section 27-356(b)(2) & (4)(d), Broward County Code of Ordinances).

Although it is the operator's responsibility to determine which of the materials handled at the facility are considered hazardous under federal, state and local government laws and regulations, a list of hazardous materials commonly handled at salvage yard facilities is provided Table 2 below. If you have any questions regarding what is a hazardous material contact the Broward County 954-519-1260.

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TABLE 2. Hazardous Materials Commonly Used, Handled, or Stored by Salvage Yards
motor oil
diesel fuel
gasoline
antifreeze/coolant
hydraulic oil/fluid
transmission fluid
brake fluid
CFCs
solvents
air bag cartridges
Mercury switches

A2. The owner/operator must obtain all required environmental licenses from the BROWARD COUNTY.

BROWARD COUNTY Hazardous Material Facility License

Most automobile salvage facilities will require a BROWARD COUNTY Hazardous Materials Facility License. A BROWARD COUNTY Hazardous Materials Facility License, is required if at least one of the following conditions applies:

- Within one month period of time, an aggregate amount of 25 gallons or more or an equivalent dry volume of hazardous material are stored, handled, generated, used, processed, manufactured, disposed or are otherwise present at the facility; or
- Present at the facility is any extremely hazardous substance (EHS) in excess of the threshold planning quantity as defined by the most current version of the Emergency Planning and Community Right-to-Know Act (EPCRA). EHSs and their threshold planning quantities are listed in Appendix 1.

If a Hazardous Material Facility License is required, the operator must abide by all

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applicable hazardous material facility operating requirements. A copy of what this type of license looks like is provided in Appendix 2. The requirements for operating a licensed hazardous materials facility are contained in Article XII of Chapter 27 of the Broward County Code of Ordinances (BCCO) and are listed below:

a. General

The abandonment or unauthorized release of hazardous material is prohibited [BCCO, Chapter 27-353(a)].

No person shall cause, permit, suffer, or allow the usage, storage, abandonment, or disposal of hazardous material:

- (1) In a manner which violates a provision of any federal, state, or local government regulations; or
- (2) In a manner which causes, or may cause, an unauthorized release of hazardous material [BCCO, Chapter 27-353(g)].

All hazardous material shall be properly stored and be accessible to inspection at anytime [27-356(b)(4)(c)(1)].

b. Record Keeping

An up-to-date inventory list of hazardous materials and hazardous wastes generated, used, stored, handled, processed, or disposed, including those stored in tanks over 110 gallons shall be submitted to BROWARD COUNTY with the Hazardous Material license application. The inventory list shall include the following information: trade name, chemical name, container size, total quantity on site, and monthly use [BCCO, Chapter 27-356(b)(2)]. See Appendix 3 for a sample hazardous materials/hazardous waste inventory.

Reports and Records, including hazardous waste manifests, bills of lading, or other equivalent manifesting for all hazardous material disposal shall be maintained on-site for five (5) years, and shall be available upon request for inspection by BROWARD COUNTY. The records, at a minimum, must identify the facility name and address, type and quantity of waste, the shipping date of the waste, and the hauler's name and address. [BCCO, Chapter 27-356(b)(4)(d)].

c. Primary Containment

All primary containment/individual storage containers of hazardous material or hazardous waste shall be product tight, maintained, and labeled in compliance with current federal, state and local regulations [BCCO, Chapter 27-356(b)(4)(a)(1)&(b)(2)].

State regulation (Chapter 17-730 FAC) addressing storage of hazardous wastes

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essentially mimics federal hazardous waste regulation (40 CFR 260 through 270). In a few cases, state regulation is more stringent. Under the above referenced federal regulations, requirements for storing, handling, and transporting hazardous wastes differ according to the type of operator. Operators are categorized based on the quantity of hazardous wastes they generate. Three categories of hazardous waste generators are defined as follows (Note: Under state and federal law, oil and other petroleum products are not considered as hazardous waste):

- **Generator**, if in a calendar month the facility generates more than 2.2 pounds (1 kg) of acutely hazardous wastes, or more than 2,200 pounds (1,000 kg) of hazardous wastes;
- **Small Quantity Generator (SQG)**, if in a calendar month the facility generates between 220 and 2,200 pounds (100-1,000 kg) of hazardous wastes; and
- **Conditionally Exempt Small Quantity Generator (CESQG)**, if in a calendar month the facility generates less than 2.2 pounds (1 kg) of acutely hazardous wastes, or less than 220 pounds (100 kg) of hazardous wastes.

It is the responsibility of the salvage yard operator to determine which generator category applies to their operation. Most salvage yards operating in Broward County will fall into the Small Quantity Generator or Conditionally Exempt Small Quantity Generator (CESQG) category.

SQGs and CESQG are exempt from the federal hazardous waste labeling requirements. For facilities falling into the Generator category, the Federal regulations addressing labeling of containers of hazardous waste (40 CFR 262.31) require that such containers be labeled in accordance with the applicable U.S. Department of Transportation (DOT) regulations (40 CFR 262.31). The DOT labeling requirements are specified in 49 CFR 172, Subpart E. These regulations require that containers of hazardous waste be labeled as specified for the material in the table provided in 49 CFR 172.101. For example, containers storing waste ethylene glycol (aka antifreeze) must be labeled "flammable liquid." Other requirements apply. For more information contact the Broward County at 954-519-1260. The appropriate labels to display on containers of hazardous wastes are illustrated in Appendix 4.

Federal regulations also require that owners and/or operators must ensure that containers holding hazardous waste are:

- always closed during storage, except when it is necessary to add or remove waste [40 CFR 265.173 (a)];

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- not "opened, handled, or stored in a manner which may rupture the container or cause it to leak" (40 CFR 265.173); and
- "made of or lined with materials which will not react with, and are otherwise compatible with, the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired" (40 CFR 265.172).

Federal regulation addresses additional requirements for ignitable, reactive, and incompatible wastes. It is unlikely that these requirements will apply to Broward County salvage yard operators. If you think these requirements may apply, refer to 40 CFR 265.176 through 177.

All storage containers of hazardous materials or wastes shall be designed and constructed in accordance with the applicable standards established by the National Fire Protection Association, the American Society for Testing and Materials, or the EPA [BCCO, Chapter 27-356(b)(4)(b)(5)].

"The owner or operator must inspect areas where containers are stored, at least weekly, looking for leaks and for deterioration caused by corrosion or other factors" (40 CFR 265.174). With the exception of underground storage tanks, storage tank configuration shall provide for complete visual inspection [BCCO, Chapter 27-356(b)(4)(b)(1)].

Defective storage containers shall be removed from service. Such containers shall be repaired or decontaminated and disposed of in accordance with local, state, and federal regulations. [BCCO, Chapter 27-356(b)(4)(c)(3)].

Under federal hazardous waste regulation (40 CFR 265.171), "If a container holding hazardous waste is not in good condition, or if it begins to leak, the owner or operator must transfer the hazardous waste from this container to a container that is in good condition..."

d. Secondary Containment

All secondary containment shall be constructed of materials of sufficient thickness, density, and composition so as not to be structurally weakened as a result of contact with the released hazardous material. The secondary containment must also be capable of containing hazardous material for a period equal to or longer than the maximum anticipated time sufficient to allow recovery of the released material [BCCO, Chapter 27-356(b)(4)(b)(3)(a)]. In general, adequate secondary containment will be coated with an impervious surface and will be of a volume sufficient to hold 110% of the largest container stored within the secondary containment.

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For tanks or containers larger than one hundred ten (110) gallons, the secondary containment shall hold one hundred ten percent (110%) of the volume of the largest tank or container. For tanks or containers of one hundred ten (110) gallons or less, the secondary containment shall hold twenty percent (20%) of the combined volume of all the tanks and containers within the secondary containment, but no less than the volume of the single largest tank or container. All materials in secondary containment shall be stored in a manner which prevents contact with an incompatible material or container in the event of a release. A double-walled tank shall be considered secondary containment [BCCO, Chapter 27-352].

All outdoor secondary containment shall be provided with a roof to prevent rainwater from entering the area, or as an alternative, be equipped with a lockable valve to enable the controlled release of any accumulation of clean rainwater. The valve shall remain locked or be secured in a manner which, if accessible to the public, prevents the release of hazardous material. All rainwater must be removed from the secondary containment area within twenty-four (24) hours of its accumulation. Any and all rainwater which has come into direct contact with any hazardous materials shall be collected and disposed of in accordance with all applicable federal, state and local regulations [Sec 27-356(b)(4)(b)(3)(b)]. In other words, once rainwater is contaminated with hazardous materials, it too becomes a hazardous material and must be disposed of according to local, state, and federal hazardous waste regulations. All drums containing hazardous materials and hazardous wastes shall only be stored within a secondary containment area or in a building or other secure area which meets the requirements of secondary containment and is protected from weather and in accordance with all applicable fire codes [BCCO, Chapter 27-356 (b)(4)(c)(5)].

Flammable liquids shall be stored in full accordance with the most current version of the National Fire Protection Association (NFPA) Code 30. A copy of the NFPA code may be purchased by calling the NFPA at 1-800-344-3555.

Reactive or incompatible materials, such as acids and bases, shall be stored in separate containers, in secondary containment areas, and in a manner which eliminates the potential for commingling in the event of a release [BCCO, Chapter 27-356(b)(4)(c)(6)]. Most salvage yards in Broward County do not handle incompatible materials that would have to be stored in separate secondary containment areas.

e. Additional Measures to Prevent Unauthorized Releases

Outdoor use of hazardous material including disassembly of any machinery, equipment, or vehicles is not permitted unless drip pans, secondary containment, or other steps are taken to prevent any release. Outside storage of disassembled parts is prohibited unless empty and stored with the fluid cavities open for inspection and in a

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manner which prevents direct contact with rainwater [BCCO, Chapter 27-356(b)(4)(c)(4)].

Any floor drains in a hazardous materials handling, usage or storage area which lead to a drainfield, septic tank, or stormwater system must be secured or permanently sealed to prevent the release of hazardous materials. [BCCO, Chapter 27-356 (b)(4)(b)(4)]. This applies also to clean out effluent contaminated with hazardous materials.

Hazardous material may be placed into a sanitary sewer system only in accordance with federal and state regulations. Any release of hazardous material into a sanitary sewer system without permission or approval and/or in excess of Public Owned Treatment Works (POTW) system standards is prohibited [BCCO, Chapter 27-356 (b)(4)(c)(8.)]. You may find out what the system standards are for the POTW your facility is connected to by calling the POTW directly. In the case of facilities located in the northern half of Broward County, call the Broward County Office of Environmental Services' Compliance and Monitoring Section at 960-3060 to determine if your facility is connected to the North Regional System and the system standards for specific hazardous materials. If your facility is not served by the north regional system, call the sewage treatment plant your facility is connected to determine system standards for specific hazardous materials.

Sump pumps used to remove clean rainwater from secondary containments shall be manually operated to prevent an automatic discharge of hazardous materials to the ground [BCCO, Chapter 27-356(b)(4)(a)(3)].

Provisions shall be made to prevent the unauthorized entry into a hazardous material storage area [BCCO, Chapter 27-356(b)(4)(a)(2)]. For example, hazardous material storage areas must be fenced in, and measures must be taken to prevent anyone but facility personnel or other authorized persons from entering these areas. Entrance points into hazardous materials storage areas such as gates must be monitored and/or locked.

Any hazardous material transfer, dispensing or mixing activities shall be designed, constructed, managed, and performed so as to prevent any unauthorized discharge or releases [Sec 27-356(b)(4)(c)(7)].

Hazardous waste shall be kept on-site for a period of time no longer than allowed in accordance with federal and state regulations [BCCO, Chapter 27-356(b)(4)(c)(9)].

f. Spill Contingency Planning

The owner/operator is required, at a minimum, to develop procedures that ensure the

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appropriate and safe handling and cleanup of any release of hazardous material [BCCO, Section 27-356(b)4(a)(5)]. The state regulatory requirements for contingency planning incorporate the federal requirements by reference. The federal contingency planning requirements are contained in 40 CFR Subpart D, Contingency Plan and Emergency Procedures (sections 265.50 through 265.56). These provisions only apply to Generators of hazardous waste as defined on page eight.

g. Requirements Following an Unauthorized Release or Discovery of Contamination

In the event of an unauthorized release of a hazardous material to the environment in an amount that is above the defined reportable quantity threshold, or the discovery of the presence of any contaminant in the air, water, soil or other natural resource of Broward County at a level which exceeds any applicable federal, state or local regulatory cleanup standard, or for which BROWARD COUNTY has determined poses an actual threat or potential risk to water supplies, the environment or to health and safety, the responsible party shall take the necessary measures to stabilize the situation and shall immediately report such incidents by telephone to BROWARD COUNTY (519-1499). Written notification of verbal reports to BROWARD COUNTY must be provided within seven (7) calendar days. Written notification shall include at minimum the location of the release, a brief description of the incident that caused the release or discovery, a brief description of the action taken to stabilize the situation, and any laboratory analysis, if available. Based upon BROWARD COUNTY's review of the information provided, the responsible party(s) may be required to obtain an environmental assessment and remediation license in accordance with Section 27-356(e) of the Code. [BCCO, Chapter 27-355(a)(1)]. If you are not sure if an incident requires reporting, call BROWARD COUNTY at telephone number 519-1260

No remedial actions, with the exception of Initial Remediation Actions, shall be initiated at a contaminated site, until a Remedial Action Plan (RAP) has been approved by BROWARD COUNTY or by the Florida Department of Environmental Protection (DEP). This prohibition does not apply in cases where the United States Environmental Protection Agency (EPA) is the lead agency and has initiated a Corrective Action under the provisions of the RCRA or a remedial action under the provisions of 40 CFR Part 300, as amended. [BCCO, Chapter 27-353 (e)].

Pumping of water as a remedial action at or within a one-quarter mile radius of a contaminated site shall not be without BROWARD COUNTY approval [BCCO, Chapter 27-353(h)]. Prior to pumping always check with BROWARD COUNTY at telephone number 954-519-1260.

Any monitoring wells required shall be constructed and maintained in accordance with the most current version of BROWARD COUNTY's "Minimum Criteria for Monitoring

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Wells and Sampling.” Any required monitoring or testing shall be as specified on the license [BCCO, Chapter 27-356(b)(4)(a)(4)]. In general, installation of monitoring wells would be required by BROWARD COUNTY or other regulatory agencies if groundwater contamination was suspected at a site, or the site is in wellfield zone. To obtain a copy of the above referenced document, contact BROWARD COUNTY at 954-519-1260.

h. Transportation, Disposal and Handling

The transportation and disposal of hazardous material shall be conducted in accordance with federal, state, and local regulations. Prior to disposal, all hazardous materials shall be properly handled on site and be accessible to inspection at any time [BCCO, Chapter 27-356 (b)(4)(c)(1)].

Local regulations require that a BROWARD COUNTY haulers license be obtained prior to the hauling of discarded hazardous material(s) for commercial purposes in quantities greater than 25 gallons of liquid or an equivalent dry volume (BCCO, Chapter 27-356(d) and section 352). Application procedures, general license conditions and operating requirements for hazardous waste haulers are described in BCCO, Chapter 27-356(d), paragraphs (2), (3) and (4).

State requirements for hazardous waste haulers incorporate the federal regulations addressing hazardous waste hauling by reference [Chapter 17-730.170(1)FAC]. In addition, state regulation requires proof of financial responsibility for haulers transporting wastes that require a manifest (as required by 40 CFR Part 262) or for haulers entering into a reclamation agreement between a generator and recycler (as specified under 40 CFR Part 263.20).

The federal regulations addressing hauling of hazardous wastes are contained in 40 CFR Part 263. These regulations address compliance requirements for hazardous waste transporters, including obtaining an EPA identification number, using the manifest system, recordkeeping, actions necessary following a discharge.

All discarded hazardous material shall be transported by a licensed BROWARD COUNTY waste hauler and be disposed in accordance with federal, state, and local regulations [BCCO, Chapter 27-356 (b)(4)(c)]. To determine if a hauler is licensed to transport discarded hazardous materials, ask for a copy of their BROWARD COUNTY license and/or call the BROWARD COUNTY at telephone number 954-519-1260. Appendix 5 contains a sample hauler’s license and a list of the licensed haulers in Broward County. BROWARD COUNTY licensed discarded hazardous material haulers are licensed by the state to haul RCRA hazardous wastes. This will be designated on the BROWARD COUNTY license. Only haulers licensed to transport RCRA hazardous wastes may legally haul these wastes (RCRA hazardous wastes are

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listed in Appendix 1). To determine if the disposal facility used by a BROWARD COUNTY licensed hauler is properly licensed, call the BROWARD COUNTY at the above listed telephone number.

Any hazardous material transfer, dispensing, or mixing activities shall be performed in a manner which prevents any unauthorized release to the environment [BCCO, Chapter 356(b)(4)(c)(7)].

i. Ceasing Operations

The owner/operator is responsible for notifying BROWARD COUNTY in writing at least thirty (30) days prior to ceasing operations, initiating a temporary shutdown (other than routine shutdown or vacations), transferring the facility's Hazardous Material License or be permanently removed from use or operation. [BCCO, Chapter 27-355(a)(3)]. The owner/operator is also required to conduct appropriate activities to insure for the proper removal and disposal of all hazardous materials at the facility. At the time of notification, BROWARD COUNTY will specify those closure activities which are determined to be necessary to meet the requirements of this license condition. Failure to notify BROWARD COUNTY or to perform the required closure activities will constitute a violation and may subject the owner/operator to enforcement action. [BCCO, Chapter 27-356(b)(4)(e.)].

j. Construction at Contaminated Sites

No construction or other intrusive activities shall be initiated, proceed or continue at any site, location or property where it is known or discovered that such site, location or property overlies or contains contaminants unless it can be demonstrated that the construction will not result in the enhancement or spread of the contaminants and until the applicant obtains prior approval to construct from BROWARD COUNTY, unless the work is part of an Initial Remedial Action. If you need information about a site, check BROWARD COUNTY's Bi-Annual Inventory Report on Contaminated Locations in Broward County, Florida. To obtain a copy of this report call BROWARD COUNTY's at 954-519-1260.

Other BROWARD COUNTY Licenses that may be required

The owner/operator is required to obtain all BROWARD COUNTY licenses that may be required for facility operations, construction, or other activities. Other BROWARD COUNTY licenses that salvage yard facilities may require include the following:

- Environmental Assessment and Remediation License - This license may be required if a facility experiences a spill or other discharge of hazardous material. A determination of whether a facility will need this license is made by BROWARD

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COUNTY following review of all pertinent information;

- Storage Tank Facility Operating License - This license is required for facilities with a storage tank(s) used to hold hazardous materials. Facilities utilizing storage tanks with a capacity of 550 gallons or less that are used to store dual-purpose fuel oil, waste oil, kerosene, and clean lubricating oils are exempt from this license requirement. The storage tank provisions of Chapter 27 are currently under revision with an expected adoption date of early 1995. Proposed changes would require a storage tank operating license for facilities with a storage tank(s) greater than 110 gallons;
- Storage Tank Construction License - This license is required of facilities that plan to construct, alter or replace a storage tank(s) used to store hazardous materials (BCCO, Chapter 27-304);
- Storage Tank Closure License - This license is required if a facility plans to remove a tank or take a tank out of service that is licensed under the Storage Tank Facility Operating License (BCCO, Chapter 27-304);
- Hazardous Material Wellfield License - This license is required of any facility located in wellfield zones 1 or 2 prior to the commencement of construction, closure, alteration, replacement or operation, if the facility may cause or be a source of pollution, or that may eliminate, reduce or control pollution of ground, groundwater or surface water (BCCO, Chapter 27-382). Maps illustrating wellfield zones in Broward County may be reviewed at the BROWARD COUNTY office, or call BROWARD COUNTY at telephone number 954-519-1260;
- Hazardous Material Wellfield Closure License - This license is required when the owner/operator of a facility licensed under the Hazardous Material Wellfield License intends to cease facility operations (BCCO, Chapter 27-382);
- Environmental Resource License and General License - An Environmental Resource License is required prior to conducting or causing mangrove alteration, construction, demolition, dredging or filling in regulated aquatic or wetland resources, or excavating or causing to be excavated 2 or more acres of an uplands water body. A General License is required for excavating or causing the excavation of less than 2 acres of an uplands water body;
- Surface Water Management Construction License - This license is required prior to excavating, creating, constructing, altering or abandoning a water management works within Broward County (BCCO, Chapter 27-403); and
- Surface Water Management Operation License - This license is required to operate

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and maintain a water management works system (BCCO, Chapter 27-405).

A3. The owner/operator must abide by all requirements of Broward County's Water Pollution Code (BCCO Chapter 27-191 through 27-210).

Under Section 27-193 of the Broward County Code of Ordinances, it is unlawful for anyone to discharge polluting substances to receiving waters in concentrations that exceed the standards established in the Code. The effluent standards for surface and groundwater are provided as Appendix 6 (Section 27-198 Broward County Code of Ordinances). Under these provisions, owners/operators may not allow rainwater that comes into contact with contaminants such as oil or grease to enter groundwater, surface waters, storm sewers or sanitary sewers. The effluent standards for oil and grease are as follows: "dissolved or emulsified oil or grease shall not exceed 10.0 mg/l; no undissolved or visible oils as iridescence shall be present" (BCCO, Chapter 27-198).

A4. The owner/operator must abide by all requirements of Broward County's Storm Water Discharges and Non-Point-Source Water Pollution Code (BCCO Chapter 27-401 through 27-410).

The County Storm Water Discharges and Non-Point-Source Water Pollution Code contains provisions that regulate construction of structures that affect storm water discharges. Under this code, "no water management works within Broward County shall be excavated, created, constructed, altered or abandoned unless a surface water management license has been obtained" (BCCO, Chapter 27-403). Water management works are defined as "any work of man, other than wells, designed or contrived to alter, regulate, control, or in any way affect or modify the natural flow or level of water, whether surface or subterranean in occurrence or origin, and including without limiting the generality thereof canals, dams, levees, spillways, locks, culverts, bridges, reservoirs, sluiceways, streams, pumping stations, structures, embankments, roadways, causeways, lakes, dikes, holding basins, floodways, navigation and conservation works, and other works and facilities, within the territorial limits of Broward County, Florida. The definition of water management works shall be construed to include the control, use and maintenance of such works as defined hereinbefore"[BCCO, Chapter 27-402(25)]. For more information the Code's storm water and non-point-source provisions, contact the BROWARD COUNTY Water Resources Division at 519-1466.

A5. The owner/operator must abide by all applicable Broward County Emission Limiting Standards (BCCO, Section 27-176).

The applicable Broward County Emission Limiting Standards address emissions of volatile organic compounds and organic solvents. These standards state that "No person shall store, pump, handle, process, load, unload or use in any process or

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installation volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by BROWARD COUNTY” and that “All person(s) shall use reasonable care to avoid discharging, leaking, spilling, seeping, pouring or dumping volatile organic compounds or organic solvents.”

A6. The owner/operator must abide with the requirements of Broward County Code Addressing open burning (BCCO, Chapter 27, Article IX).

Outdoor open burning results in or contributes to air pollution. Open burning of materials is allowed only under a limited number of circumstances and requires a BROWARD COUNTY license (BCCO, Chapter 27-283). BROWARD COUNTY open burning licenses are not available for typical salvage yard operations.

STATE REQUIREMENTS

A7. The owner/operator must abide by all requirements of Florida State used oil laws and regulations (Sections 403.75 through 403.769, Florida Statutes and the Used Oil Management Rule, Chapter 62-710, FAC).

Used Oil Management-General

According to the recently revised state used oil management rule (adopted April 27, 1995):

"(1) No person may collect, transport, store, recycle, use, or dispose of used oil, used oil filters, or oily wastes in any manner which endangers the public health or welfare or the environment.

(2) No person may discharge used oil into soils, sewers, drainage systems, septic tanks, surface or ground waters, watercourses, or marine waters.

(3)(a) Except as provided in paragraph (b) of this subsection, no person may mix or commingle used oil with solid waste that is to be disposed of in landfills or directly dispose of used oils in landfills. Oily wastes may be disposed of in landfills unless prohibited in other DEP rules.

(3)(b) DEP shall allow disposal of used oil commingled with solid waste if it determines that it is not practical to separate the used oil from the solid waste, and if such disposal will pose no significant threat to public health or the environment.

(4) Any person who unknowingly disposes into a landfill any used oil or oil filters which have not been properly segregated or separated from other solid wastes by the generator is not guilty of a violation under this act.

(5) No person may mix or commingle used oil with hazardous substances that make it unsuitable for recycling or beneficial use.

(6) Used oil shall not be used for road oiling dust control, weed abatement or other similar used that may release used oil into the environment." (Section 62.710.400, FAC)

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Used Oil Filter Management

The recently revised State Used Oil Management Rule requires the following for used oil filter management:

(1) "...no person who removes or manages used oil filters shall dispose of such filters in a landfill or commingle such filters with other solid waste for disposal in a landfill. It is the responsibility of the generator to make reasonable efforts to assure that such filters are not disposed of in a landfill. This prohibition shall not apply to used oil filters generated by individual households"

(3) "Each generator of used oil filters whose solid waste is typically disposed of in a landfill shall either register as a used oil filter processor or shall ensure that its filters are processed by a registered used oil filter processor. This does not include persons who recycle engine blocks on which used oil filters remain."

In other words, the state rule allows two choices for salvage yard operators. Operators may either leave used oil filters attached to the engine of junk cars and sell the whole bundle as scrap. Or, if the salvage yard operator decides to remove used oil filters from junk cars, they must demonstrate that these filters are collected from the salvage yard by a state registered used oil filter processor. A list of the state licensed used oil transporters, collectors and recyclers is provided in Appendix 7.

Additional information on the state's regulatory program is available from DEP's Hazardous Waste Management Section at telephone number (904) 488-0300 or the Filter Manufacturers Council at 1-800-993-4583. The Council can also provide contact information on used oil filter transporters, processors and recyclers in your area (Appendix 8).

A8. The owner/operator must abide by all requirements of the state Hazardous Substance Release Notification Rule (Chapter 17-150, FAC).

"Any owner or operator of a facility who has knowledge of any release of any hazardous substance from a facility in a quantity equal to or exceeding the reportable quantity in any 24-hour period shall notify the Department (of Environmental Protection) by calling the State Warning Point Number, (904) 488-1320, within one working day of discovery of the release".

See Appendix 1 for the reportable quantities and hazardous substances defined under this rule. If you do not know if you have a hazardous substance, or what these thresholds mean, call the Florida State Department of Environmental Protection at (904) 488-0300.

A9. The owner/operator must abide by all requirements of the state Waste Tire Rule (Chapter 17-711, FAC).

The state Waste Tire Rule (Chapter 17-711, FAC) contains the following provisions:

- Facilities storing 1,000 or more waste tires on site must obtain a waste tire permit from FDEP and abide by all requirements for operating a waste tire collection facility as specified by Rules 17-711.300 & 310 FAC (Appendix 9 contains a sample FDEP Waste Tire Collector Registration Application). Facilities storing less than 1,000 waste tires on site are exempt from the waste tire permitting requirements (Rules 17-711.300 & 310 FAC);
- "Waste tire collector" means a person who transports more than 25 waste tires over public highways at any one time [Rule 17-711.200(16)];
- "No person shall dispose of waste tires except at a permitted solid waste management facility which includes any facility permitted by the Department for the disposal of waste tires";
- "Whole waste tires may not be disposed of in a landfill. Waste tires that have been cut into sufficiently small parts may be disposed of or used as initial cover at a permitted landfill.
 - (a) For use as initial cover, a sufficiently small part means that 70 percent (70%) of the waste tire material is cut into pieces of 4 square inches or less and 100 percent (100%) of the waste tire material is 32 square inches or less.
 - (b) For purposes of disposal, a sufficiently small part means that the tire has been cut into at least eight substantially equal pieces."
- "No person shall store waste tires unless the waste tires are:

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- (a) Collected and stored at a permitted waste tire collection center;
 - (b) Collected and stored before processing at a waste tire site which is an integral part of a permitted waste tire processing facility;
 - (c) Collected and stored before processing and recycling or disposal in a permitted solid waste management facility; or
 - (d) Collected and stored at a facility exempted under Rule 17-711.310, FAC"; and
- "No person may contract with a waste tire collector for the transportation, disposal, or processing of waste tires unless the collector is registered with Department (DEP) or exempt from registration requirements. Any person contracting with a waste tire collector for the transportation of more than 25 waste tires per month from a single business location shall maintain records for that location and make them available for review." "These records shall contain the date when the tires were transported, the quantity of tires, the registration number of the collector, and the name of the driver."

Additional information on state waste tire management requirements is available from DEP's West Palm Beach Office (407) 433-2650, ext. 110.

A10. Owners/operators must comply with the provisions of the state Motor Vehicle Air Conditioning, Refrigerant Recovery and Recycling Rule (Chapter 17-281, FAC) and all applicable federal requirements.

Under the state Motor Vehicle Air Conditioning, Refrigerant Recovery and Recycling (MVACRRR) Rule, no facility shall intentionally vent or dispose of automotive chlorofluorocarbons (CFCs) to the atmosphere, or install, service, repair, salvage, destroy, or dismantle a motor vehicle air conditioner without the use of approved refrigerant recycling equipment (Chapter 17-281, FAC).

Automobile salvage facilities must comply with all aspects of the state MVACRRR Rule unless the following conditions apply:

- the facility purchases or accepts motor vehicles for salvage exclusively from establishments certified under Chapter 17-281 FAC which have previously recovered all refrigerants from the motor vehicles prior to shipment and have a signed verification statement from the certified establishment including name address and the date the refrigerant was recovered;
- the facility is engaged in the business of processing for purposes of material recovery and which purchase or accept prepared materials as that term is defined in Section 319.30(1)(1), F.S.; or

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- the facility is engaged in the business of processing for purposes of material recovery and which purchase or accept motor vehicles or derelicts, as that term is defined in Section 319.30(1)(c) F.S., for which the establishment has on file a statement signed by the vendor of the motor vehicles or derelicts stating that the vendor is certified under and complying with this rule or other comparable state or federal rule which requires that all refrigerants have been removed from all motor vehicles and derelicts sold by the vendor (Section 17-281.300 FAC).

Training Requirements

The MVACRRR Rule requires that “each establishment subject to the provisions of this rule shall have mechanics, trained in the proper operation and maintenance of refrigerant recycling equipment and in the proper procedures for recovering and recycling used refrigerants from motor vehicle air conditioners, performing or supervising these services at all times, including any services provided by a mobile service unit”. Certification procedures and training requirements for employees operating refrigerant recovery/recycling equipment are specified in Chapter 17-281.600 FAC. Training certificates must be displayed on the premises of the facility, and mechanics must be able to demonstrate their ability to perform the proper procedures for recovering used refrigerant, and the proper operation and maintenance of refrigerant recycling equipment (Section 17-281.400 FAC). EPA does not require technician certification for persons removing refrigerant from motor vehicle air conditioners for purposes of disposal of these appliances.

Equipment Requirements

Equipment used for either recovery and recycling or only recovery of motor vehicle air conditioning refrigerants must be certified by the EPA. Certification procedures and requirements for air conditioning recycling/recovery equipment are specified in Rule 17-281.700 FAC. Automobile salvage facilities to which the provisions of MVACRRR Rule apply must also obtain a facility certification. The procedures for applying for facility certification are detailed in Section 17-281.500. Additional information and a DEP facility certification application form may be obtained from DEP’s Air Quality Section, West Palm Beach Office (407/433-2650) or the BROWARD COUNTY Air Quality Section (954/519-1220).

Safe Disposal Requirements

EPA requires that persons disposing of air-conditioning and refrigerant equipment certify to EPA that they have acquired recovery equipment and that they are complying with the applicable requirements of the federal regulations addressing refrigerant requirements. The certification must be signed by the owner of the equipment or another responsible facility representative and sent to EPA Region 4. A copy of the EPA certification form is attached as Appendix 10. Contact EPA Region 4 for more information (404/347-2904).

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Recordkeeping Requirements

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Each facility subject to the provision of MVACRRR Rule shall maintain records relating to the reclamation of motor vehicle air conditioning refrigerants. All records shall be maintained on the premises of the facility for a minimum period of three years and shall be available for inspection. Records shall include, at minimum, a record of the amount of refrigerant that has been recycled on-site each month and the amount of refrigerant that has been transferred to a refrigerant reclamation facility, including the name and address of the reclamation facility and date of transfer (Section 17-281.400).

A fact sheet on recovering and recycling CFCs from auto air conditioning systems is provided in Appendix 11. Besides general information, the fact sheet lists suppliers of CFC recycling equipment. Appendix 12 contains a BROWARD COUNTY technical bulletin summarizing the state and federal CFC regulations for automobiles. Additional information on state and federal CFC recovery requirements is available from the BROWARD COUNTY Air Quality Division (954/519-1220).

FEDERAL REQUIREMENTS

A11. Under Section 304 of the Emergency Planning and Community Right-To-Know Act (EPCRA), the owner/operator must report spills of CERCLA hazardous substances and extremely hazardous substances exceeding reportable quantities.

The salvage facilities operating in Broward County will most likely handle some materials classified as hazardous substances and extremely hazardous substances (EHSs) under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). A list of these substances is provided in Appendix 1. Please note that under federal law, petroleum products are not considered a hazardous substance. Two materials commonly handled by auto salvagers and classified as hazardous substances under CERCLA are ethylene glycol, commonly known as antifreeze, and lead sulfate which is found in car batteries. A CERCLA hazardous substance that may be handled by other types of salvage yards is mercury. Mercury can be found in some electrical switches. An EHS commonly handled by automobile salvagers is sodium azide, the compound found in air bag cartridges.

Under Section 304 of the EPCRA, spills or releases of CERCLA hazardous substances and EHSs equal to or exceeding reportable quantities must be reported to the relevant Local Emergency Planning Committee (LEPC) and State Emergency Planning Committee (SEPC) at (904)488-1320, and the National Response Center (NRC) at (800)424-8802. Reportable quantities (RQs) for each CERCLA hazardous substance and EHS are listed below in Table 3. Given the reportable quantities for lead sulfate and sodium azide, it is unlikely a salvage yard would release large enough quantities of these substances to require reporting to the LEPC, SEPC, and NRC. However, it is quite possible that a automobile salvage yard could release a reportable quantity of ethylene glycol (aka antifreeze). The release of only 1 pound of ethylene

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glycol (approximately 1 quart or more) requires reporting as described above.

TABLE 3. Reportable Quantities for Some CERCLA Hazardous Substances & Extremely Hazardous Substances (EHS) Commonly Handled at Salvage Yards in Broward County.

<u>Substance</u>	<u>Classification</u>	<u>Reportable Quantity</u>
ethylene glycol (antifreeze)	hazardous substance	1 pound (approximately 1 quart of used antifreeze)
lead sulfate (contained in car batteries)	hazardous substance	100 pounds or approx. 12.5 gallons (or the liquid content of about 8 car batteries)
sodium azide (contained in air bag cartridges)	extremely hazardous substance	1000 pounds (the contents of approx. 500-1000 cartridges)
mercury (contained in switches)	hazardous substance	1 pound
Note: Your facility may handle other substances regulated by EPCRA. Check the list in Appendix 1.		

Notification of a spill to the LEPC, SEPC, and NRC must include the following information:

- name of the chemical spilled;
- an indication of whether the substance is an EHS;
- an estimate of the quantity released into the environment;
- the time and duration of the release;
- the medium into which the release occurred;
- any known or anticipated acute or chronic health risks associated with the emergency and, where appropriate, advice regarding medical attention necessary for exposed individuals;
- proper precautions, such as evacuation; and
- the name and telephone number of a contact person.

The EPCRA reporting requirements are not the only reporting requirements that the owner/operator must abide by following a spill or release. Spills or releases of hazardous materials including petroleum products must also be reported to Broward

A12. The owner/operator of automobile salvage facilities may be required to obtain a National Pollutant Discharge Elimination System (NPDES) stormwater permit from EPA.

EPA is developing a stormwater permit requirement for specific industry categories called a multisector general permit. Automobile salvage yards will be one of the industry groups covered under the new permit requirement which is expected to become effective in July or August of 1995. For more information on this permit requirement, call the EPA Region IV's Water Permits & Enforcement Branch at 404/347-3012.

A13. The owner/operators of salvage facilities (for example, scrap metal dealers) are required to comply with the federal regulations addressing refrigerant recovery from small appliances (42 CFR 82).

The federal regulations addressing refrigerant recovery from small appliances (refrigerators, freezers for home use, room air conditions, window air conditioners, a/c packaged terminals and heat pumps, dehumidifiers, vending machines, ice makers, and water coolers) state the following:

- it is illegal to intentionally vent into the atmosphere any CFC used as refrigerant in the course of disposing of a stationary appliance or industrial process refrigeration system (minimum releases while making a good faith effort to dispose of refrigerant are permissible); and
- the final person in the disposal chain of CFC containing equipment is responsible for ensuring that refrigerant is recovered prior to disposal.

In addition to the basic requirements stated above, the federal regulations require scrap metal salvagers to do the following:

- recover 90% of refrigerant in the small appliance when its compressor is running or 80% when the compressor is not running;
- empty the small appliance to 4 inches of mercury; or
- get in writing a signed verification statement with the person from whom you are receiving the small appliance that the refrigerant has been removed.

The verification statement is to include a signed statement from the person whom the

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appliance of shipment of appliances is obtained that all the refrigerant that had not leaked previously has been recovered from the appliance. This statement must include the name and address of the person who recovered the refrigerant and the date the refrigerant was recovered or a contract that states the refrigerant will be removed prior to delivery.

Equipment certification is not required if the equipment is used only for recovering refrigerant from small appliances prior to disposal. Technician certification is not required for disposers of small appliances.

A technical bulletin on the federal requirements for recovering CFCs from stationary sources is provided in Appendix 13. Additional information on these requirements is available from BROWARD COUNTY's Air Quality Division (954-519-1220).

OBJECTIVE B: PREVENT THE RELEASE OF POLLUTANTS AND HAZARDOUS MATERIALS TO THE ENVIRONMENT AS A RESULT OF LEAKS, FUGITIVE AIR EMISSIONS, ACCIDENTS OR IMPROPER DISPOSAL, OR DISCHARGE.

Hazardous material releases can result during salvage yard operations. Such releases are generally caused during vehicle disassembly (including disassembly of air conditioning units), parts or fluids storage, fluids removal, and hauling activities. Under Broward County Code, salvage yard operators are responsible for preventing hazardous material releases.

No person shall cause, permit, suffer, or allow the usage, storage, or disposal of hazardous material in a manner which causes, or may cause, an unauthorized release of hazardous material [BCCO, Chapter 27-353].

The Code does not specify how facility operators are to prevent releases, thus allowing operator flexibility. An operator can, however, minimize the potential for releases by implementing the following voluntary steps:

- Initiate improvements in current operational procedures and housekeeping practices;
- Implement a regular inspection program focused on early identification of potential facility conditions and activities that may result in release of hazardous materials to the environment;
- Establish a preventive maintenance program for the facility; and
- Prepare a facility spill contingency plan.

The most appropriate methods for preventing pollution will depend on site-specific considerations. The owner/operator is in the best position for identifying the most appropriate pollution prevention methods to implement at their facilities. Below, we recommend procedures for accomplishing this goal. The owner/operator may choose which of these recommended procedures to implement or adapt for their facility.

B1. Initiate improvements in current operational procedures and housekeeping practices, such as:

- a. Remove and collect all fluids, refrigerants, oil filters, and air bag cartridges from vehicles upon receipt;
- b. Dedicate a single area of the salvage yard to vehicle disassembly and

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- fluids/refrigerants removal. This area should have a bermed, impervious surface and be under cover. In addition, drip pans should be used during all fluids removal operations;
- c. Keep disassembly area clear of stacked vehicles or parts so that disassembly is always conducted in the dedicated area;
 - d. Have the appropriate equipment available and in good working order to collect fluids and refrigerants;
 - e. Segregate all waste fluids into separate containers prior to reuse, recycling or disposal;
 - f. Close all hazardous material containers when not in use;
 - g. Label all containers used for storing wastes with at least the name of the waste contained and the start date of filling;
 - h. Retrieve unused air bag cartridges from vehicles for resale. Otherwise, dispose of these cartridges as a hazardous waste;
 - i. Conduct all vehicle crushing operations in a bermed, impervious area;
 - j. Cover the disassembly area, and other secondary containment areas, to avoid the contamination of rainwater with hazardous materials;
 - k. Store all engines and transmissions that have been drained of fluids under cover and over an impervious floor. Use drip pans to catch any residual fluids;
 - l. Have batteries hauled away once enough are accumulated for hauling;
 - m. Maintain a monthly accounting of each hazardous material including information on amount received or collected, amount being stored, amount shipped, etc.;
 - n. Supervise all customers allowed to remove parts in the yard to ensure that they use drip pans while removing parts;
 - o. Reuse, to the greatest extent possible, all hazardous materials that would otherwise require disposal such as gasoline and antifreeze. A fact sheet discussing management options for used antifreeze is provided in Appendix 14;
 - p. Recycle, to the greatest extent practical, all hazardous and non-hazardous

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materials that cannot be reused on site (for example, oil, CFCs, used tires). Information on waste exchanges that may be used to identify markets for your recyclable materials is provided in Appendix 15 under Florida Recycling Marketing Systems Electronic Bulletin Board and the Southern Waste Exchange Clearinghouse and the National Materials Exchange Network;

- q. Contract to have used mineral spirits removed from your facility for offsite recycling (distillation);
- r. Resell used tires in good condition for reuse. Recycle the remaining tires;
- s. Do not allow operations involving open flames within 25 feet of a waste tire pile;
- t. Collect all stormwater runoff from the yard into an oil-water separator system prior to discharging to the storm sewer or groundwater. Maintain and clean out system on a regular basis;
- u. Use a computerized inventory to avoid overstocking of used parts; and
- v. Investigate the hazardous waste haulers and disposal sites used. Check into the hauler/disposal site permits, call appropriate local, state, and/or federal regulatory agencies to check on the hauler and disposal site compliance, visit disposal sites used, check with the hauler's and disposal site's trade organization, and check the insurances and financial position of haulers and disposal sites used.

B2. Expand the required weekly inspection of all storage containers to include identification of potential facility conditions and activities that may result in release of hazardous materials to the environment.

The required weekly inspection should be expanded to include the following:

- Inspect containment dikes and other containment systems for signs of leakage. Make repairs as soon as damage is found.
- Inspect flooring and repair any cracks subject to spills immediately.

B3. Prepare a facility spill contingency plan.

Preparation of and familiarity with facility-specific spill contingency plan will greatly increase the probability that spills are cleaned up promptly and in the most efficient

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manner possible. Such a plan should be designed to minimize hazards to human health and the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous material to air, waters, soils, or other natural resources of Broward County. The provisions of the plan should be carried out immediately whenever the above types of unplanned and unexpected events occur.

OBJECTIVE C: DEVELOP A COMPREHENSIVE POLLUTION PREVENTION PROGRAM TO MINIMIZE THE RELEASE AND MAXIMIZE THE REUSE AND RECYCLING OF HAZARDOUS MATERIALS.

BROWARD COUNTY recommends that the owner/operator of a salvage facility develop a pollution prevention program. Development of a Pollution Prevention (P2) Program is advantageous to the owner/operator because it establishes a system that facilitates the objective evaluation of a facilities pollution management capabilities. Once it is possible to evaluate a facility's pollution management capabilities, mechanisms for improving P2 management can be developed, and progress towards reaching P2 goals can be reached. The owner/operator can develop such a program by utilizing the free, non-regulatory technical assistance of DEP's Waste Reduction Assistant Program (WRAP), or the owner/operator can hire a private consulting firm with pollution prevention expertise to develop the program. Pollution prevention references are available for review in the BROWARD COUNTY web site (www.broward.org/environment).

C1. Set overall Pollution Prevention Program goals.

Identify the goals and objectives of the facility's Pollution Prevention Program. The goals should include minimizing the release of hazardous materials and disposal of hazardous wastes by maximizing hazardous materials reuse and recycling. The objectives should define what must be done to accomplish the goals. Objectives may include such things as reducing hazardous waste disposal requirements by a specific percentage or amount, eliminating the need to dispose of an extremely hazardous waste, or reducing releases of hazardous materials to the environment. A description of recommended plan elements begins on page 31.

C2. Conduct a Facility Pollution Prevention Assessment

A facility pollution prevention assessment is a review of current facility operations. An analysis of facility operations can help to identify changes that can reduce pollution risk. One of the first steps of a facility assessment should be to gather background information on operating procedures, current reuse and recycling activities, and waste management practices.

The following are a few of the typical steps taken when conducting a facility pollution prevention assessment:

- a. Prepare drawings of the facility layout including storage areas. These drawings should be to scale and show the location of all major equipment, tanks and storage areas;

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- b. Inventory of all hazardous materials handled by the facility and the amounts accumulated, reused on site, and recycled.
- c. List facility operations with the potential to release hazardous substances.
- d. Evaluate whether operations could be improved to further reduce releases of hazardous materials. For example, discuss how vehicles or materials brought to the facility are handled, and how this could be modified to further reduce releases of hazardous materials to the environment.
- e. Identify current on site reuse and off site recycling activities. Evaluate their efficiency.
- f. Collect available quantitative information on facility operations
 - Quantity and type of hazardous wastes handled, treated, reused, recycled, and disposed;
 - Cost of liability insurance, and compliance and licensing;
 - Operation and maintenance costs; and
 - Cost, cost-savings or profit associated with hazardous material reuse, recycling and disposal.

C3. Prepare a Pollution Prevention Plan.

A Pollution Prevention Plan is an important element of a Pollution Prevention Program. It describes the facility's current procedures, identifies improvements, establishes a schedule for implementing selected improvements, and describes how accomplishments will be tracked and measured. In addition, a written plan becomes an excellent guide to reference over the course of a year to ensure that the facility's Pollution Prevention Program is on track, as planned.

The Pollution Prevention Plan should be developed by the facility with consideration given to the following recommended components:

1. A statement of the company's pollution prevention goals, objectives, and policies which includes a description of management's initiative, commitment, and involvement in achieving the Pollution Prevention Program's waste minimization goals.

State the company's pollution prevention goals and objectives developed under item C1 above. Include a description of management's involvement in the program. Owners/managers set the tone of a company's activities. Through them employees learn the importance of pollution prevention and

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waste minimization. Prepare a written statement that expresses management's support for the Pollution Prevention Program, and commitment to implementing planned activities and achieving established goals.

2. Provide a summary of the facility pollution prevention assessment.

Summarize the findings of the facility pollution prevention assessment incorporating the elements described above item C2.

3. Identify new opportunities for onsite reuse and off site recycling of hazardous materials. Evaluate each of these opportunities. Determine if an existing waste stream could be reduced or eliminated by implementing one of the new recycling opportunities. Include an evaluation of each option.

General and site-specific factors must be considered when evaluating waste minimization opportunities. Evaluation of waste minimization options should include consideration of the following questions:

- What are the main benefits to be gained by implementing an option?
- Is the option economically feasible to implement (what is the payback period for implementing the option, what is the expected return on investment, what is the net present value of implementing the option)?
- How much will it cost to implement the option?
- Can the option be implemented within a reasonable amount of time?
- Does the option have a good "track record"?
- Will any other areas of facility operations be affected?
- Which option will best achieve the facility's waste reduction goals?

The types of data and information that are useful for this type of evaluation include: identifying markets for scrap metal and other reusable materials, manufacturers of recycling equipment, and recyclers/haulers of hazardous and non-hazardous materials/wastes.

4. Include a schedule of when selected options will be implemented.

A schedule helps management to plan for implementing the new pollution prevention and waste minimization procedures.

5. Describe how progress towards reducing the volume of hazardous wastes disposed will be measured.

The schedule prepared under item 4 above allows management to keep track of their progress towards implementing the selected pollution prevention and waste minimization options. Establish quantitative goals for waste reduction to measure progress. Management can then measure their progress towards meeting established goals. Include a discussion of what data will be collected, how results of the program will be tracked and analyzed, how progress will be measured against goals, and how frequently a Pollution Prevention Program status report will be prepared (quarterly, semiannually, or annually).

6. Include a description of the employee awareness and training programs that will be implemented to further the goals of the facility's Pollution Prevention Program.

Develop employee awareness and training programs, and provide a description of these programs in the facility Pollution Prevention Plan. Create a schedule for implementing the programs, and follow the schedule.

C4. Involve facility employees in the Pollution Prevention Program.

Although pollution prevention commitments often begin with management, employees are usually the best source for suggesting improvements in the day-to-day operations of the business. Employee incentive programs encourage employees to design and use new pollution prevention ideas. Good suggestions should be put into practice and recognized. One way to reward employee participation in the facility's pollution prevention program is to establish a monetary recognition system. For example, if an employee's suggestion is implemented and results in a cost savings to the facility, the monetary reward to the employee could be set as a percentage of the estimated annual savings to be realized by facility.

C5. An annual review of the Pollution Prevention Plan is recommended. Where appropriate, revisions to the plan should be made.

Pollution prevention is an ongoing effort and facility operations can change. Consequently, a facility assessment and a reevaluation of the Pollution Prevention Plan should be repeated at least once a year. Annual review and revision of the Pollution Prevention Plan should be based on the facility assessment. In addition to continually maximizing pollution prevention opportunities, annual review and revision of the program will demonstrate the facility's continued commitment to achieving pollution prevention and waste minimization goals.

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The strategies noted above for developing a comprehensive pollution prevention program will be beneficial for the company and the environment. Implementation of pollution prevention procedures can reduce facility operating costs. Such cost savings can quickly compensate for any costs associated with implementing new pollution prevention procedures.