Environmental Compliance Certification Program

Certification Workbook

For

Auto Salvage Yard Facilities

May 2007

Rhode Island Department of Environmental Management
Office of Technical and Customer Assistance
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(401) 222-6822

http://www.dem.ri.gov/

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Section 1.0 – Overview

According to the Automotive Recycling Association, over four million end-of-life vehicles are recycled annually in the United States. Auto recyclers dismantle these vehicles to recover fluids and parts for reuse, and scrap material for recycling. Every year, over eleven million vehicles end up at one of the estimated 7,000 auto salvage yards nationwide. Typically, auto recyclers manage to reuse and recycle over seventy-five (75) percent of the material content of a vehicle, by weight.

The auto recycling business is over seventy-five years old, and has evolved into a sophisticated market and technology-driven industry that must constantly change in response to innovations in automotive technology and manufacturing techniques. To be competitive and profitable in today's markets, the auto recycling process must involve much more than merely crushing wrecked, abandoned, and worn-out motor vehicles. The modern-day auto recycler must establish operating practices that realize the maximum market value of every end-of-life vehicle taken in, as well as produce real economic and environmental benefits within the community being served.

Hence, in order to improve environmental protection at less cost to both government and business, auto salvage facilities are offered the opportunity to self-certify to the Rhode Island Department of Environmental Management, Office of Technical & Customer Assistance (RIDEM/OCTA), that they are complying with the environmental protection requirements that apply to their business.

This new, common sense approach to regulation holds great promise for making it easier for the auto salvage industry to meet and surpass Rhode Island's environmental regulations. This workbook provides the information needed to help you understand the environmental issues that apply to auto salvage operations, to comply with state and federal environmental regulations, and implement best management practices to minimize risks and liabilities. It was developed in collaboration with the Department of Environmental Management, the University of Rhode Island Center for Pollution Prevention & Environmental Health, and the Narragansett Bay Commission.

The program uses two documents:

1. **Environmental Compliance Certification Workbook For Auto Salvage Facilities (This Workbook):**

This workbook contains the basic materials needed to understand environmental regulations and best management work practices related to common auto salvage operations, and how to make sure you are complying with them. The workbook is designed to be used in conjunction with and in completing and submitting the accompanying self-certification "***Compliance Certification Checklist***" and related forms. It can also be used as a reference in the future.

2. **Self-Certification Checklist Package:**

This package includes certification instructions, as well as the ***Compliance Certification Checklist*** that needs to be completed and submitted to RIDEM/OTCA in order to participate, and other forms described below.

- **Facility Non-Applicability Statement:**
  This statement is to be submitted <u>only</u> if you are not subject to participate in self-certification. See Section 1.1 of the workbook to determine if you are eligible to file a Non-Applicability Statement. If you aren't subject to participate for one of the reasons identified in Section 1.1, then complete this form and submit it to RIDEM/OTCA.

- **Return-to-Compliance Plan:** Complete the **Return-to-Compliance Plan** if your facility is not in compliance with a particular checklist item at the time of certification. The facility must detail its plans to address the particular items to bring them back into compliance with environmental regulations within a specified period of time.

- **Return-to-Compliance Plan Completion**: If your facility submits **Return-to-Compliance Plan Forms** with your completed **Compliance Certification Checklist**, you must submit a **Return-to-Compliance Plan Completion Form** for <u>each</u> RTC that is submitted. <u>This form is **not** submitted with your **Compliance Certification Checklist,** but is completed and submitted to RIDEM, for each RTC, when the compliance issue has been corrected, and it states what corrective action that you have taken</u>.

1.1 Who Does Self-Certification Apply To?

Participation in the program is **voluntary**. However, all licensed auto salvage facilities should strongly consider participating in the Self-Certification Program to take advantage of the educational and compliance assistance benefits and incentives detailed in Section 1.2. All facilities that are licensed by the Department of Business Regulation as an Auto Wrecking and Salvage Yard are eligible to participate in the Self-Certification Program. (Note: All facilities involved in auto wrecking or salvage yard operations ***must*** be licensed by the Rhode Island Department of Business Regulation).

You may file a **Non-Applicability Statement** only if there is no active auto salvage yard operations at your facility address, or if the facility property has been sold. If this applies, please complete, sign, and return the **2007 Non-Applicability Statement,** found in the **Self-Certification Checklist Package**, to RIDEM/OTCA. If you have questions regarding the status of your facility, please call us at 222-6822, Ext. 4412.

It should be noted that all facilities in the State of Rhode Island *must* comply with all applicable environmental regulations, whether or not they self-certify.

To participate in the program, please complete and return the **Compliance Certification Checklist** as instructed.

1.2 What are the Benefits of Participation?

Benefits to participating in the Auto Salvage Yards Certification Program include:

- Reduced inspection priority
- Making you better prepared for a random inspection of work being performed
- Being placed on a public list of certified auto salvage yards facilities
- Receiving a Certificate of Participation from RIDEM
- Using your RIDEM Certification as a marketing tool with customers
- Receiving information and education on methods of complying with environmental regulations that apply to auto salvage facilities
- Entitling you to free technical assistance from RIDEM's Office of Technical & Customer Assistance (OTCA) and the University of Rhode

Island Center for Pollution Prevention & Environmental Health, to comply with environmental regulations and implement best management practices that could result in financial savings

- Receiving educational and promotional materials

Contact Information:

RIDEM Office of Technical & Customer Assistance
Thomas Armstrong or Richard Enander, Ph.D.
(401) 222-6822, Ext. 4412 or 4411

URI Center for Pollution Prevention & Environmental Health
Eugene Park, PhD.
(401) 222-6822, Ext. 4415 or (401) 874-4303

Note: Participation in this self-certification program does not guarantee that your shop will not be subject to a random inspection, or an inspection prompted by an employee or a complaint. Both state and federal environmental agencies have the authority to perform such inspections. These inspections can result in enforcement actions against your facility. Participation in this program will help to identify any deficiencies and prepare your facility in the event of an inspection. Keep copies of your checklists to assist you in demonstrating compliance with applicable state and federal regulations. Auto salvage facilities are also subject to local ordinances that may be in effect now or in the future that are afforded to municipalities under Rhode Island law, primarily relating to the issuance and revocation of local licenses.

1.3 Program Requirements

To understand your environmental regulatory responsibilities, please read and use this **Certification Workbook**.

It should be noted that this program covers certification of environmental regulatory requirements pertaining to auto salvage operations, and does ***not*** cover OSHA requirements. Very basic worker protection information and an overview of some OSHA requirements pertaining to auto salvage facilities are presented in this workbook to help inform and educate. Please note, however, that as a licensed facility, it is your responsibility to comply with all applicable OSHA requirements.

It is easy to participate in the program. To do so, you must complete the **Compliance Certification Checklist** and RTC forms as applicable, and submit them to RIDEM.

Compliance Certification Checklist

This form is found in the accompanying Certification Checklist Package. It contains a series of questions that pertain to various auto salvage yard facility operations and regulatory requirements related to hazardous waste, solid waste, auto mercury switches, wastewater, stormwater, and air emissions. The form is to be completed and submitted now, and every three (3) years to continue participation in the program. You should keep a copy of this completed form for your records.

It is very important to remember that you **must** comply with all applicable federal and state environmental regulatory requirements, as well as local ordinances afforded to municipalities under Rhode Island law, whether or not you participate in the program.

1.4 Overview of Regulations

Auto salvage facilities are potentially subject to a wide range of environmental regulations including solid and hazardous waste, wastewater, stormwater management, and air pollution. Enforcement of these regulations is governed by US EPA, RIDEM, and the local POTWs (publicly-owned treatment works, or sewer authorities). See **Appendix F** for POTW (or Wastewater Treatment Facility) information.

Pertinent regulations that are applicable to the specific areas of concern will be explained in Section 3 of this workbook.

Additionally, auto salvage facilities are subject to local ordinances afforded to municipalities under Rhode Island law, primarily relating to the issuance and revocation of local licenses.

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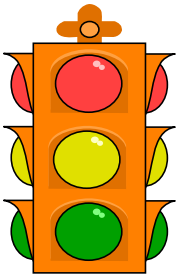
Section 2 – Preventing Environmental Pollution for Auto Salvage Yard Operators

2.1 The First Step to Compliance



The first step on the road to environmental compliance is to look for opportunities to use fewer hazardous materials and to generate less waste, thus stopping pollution at its source. Preventing environmental pollution is the Rhode Island Department of Environmental Management's preferred method for reducing environmental and human health risks. This includes reduction in the use of hazardous materials, as well as energy and water conservation. In addition to reducing environmental and health risks, companies can also increase productivity, save money, and reduce workplace exposures by preventing environmental pollution in their facilities.

Why manage wastes when you can eliminate them? Preventing environmental pollution can help you to reduce your compliance burdens, make your workplace cleaner and safer, increase your competitiveness and save you money. Additionally, it can instill local community benefits such as creating a more pleasant living environment, and the preservation of valuable city and town resources. This section outlines some simple steps you can take in the auto salvage yard to prevent environmental pollution. After reviewing these steps to reduce your use of toxic materials and generation of wastes as much as possible, move along in the workbook to find out how to properly manage your remaining wastes, air emissions, wastewater, and stormwater discharges. If you need help with preventing environmental pollution, feel free to contact RIDEM's Office of Technical and Customer Assistance (OTCA) at 222-6822, Ext. 4412 or the URI Center for Pollution Prevention & Environmental Health at 222-6822, Ext. 4415 or 874-4303.

2.2 Tips for Auto Salvage Yards

By carrying out the steps outlined below, auto salvage yard operators can help to avoid potential problems with environmental contamination, and reduce risk to human health. You can use the list to help in identifying areas that need improvement, and tracking your progress in making these improvements. By taking these actions, you will be well on your way to certifying environmental regulatory compliance to RIDEM/OTCA and participating in the program.

On the Road to Pollution Prevention and Environmental Compliance ...

- √ On arrival of incoming vehicles at the facility, check for fluid leaks - stop leaks or use drip pans to avoid leaking on the ground
- √ Draining of fluids and dismantling vehicles should only be done over a concrete or other impervious surface, and under cover to protect it from precipitation and storm water runoff
- √ Before moving incoming vehicles to storage, remove fluids such as fuel, motor oil, antifreeze, transmission fluid, and brake and power steering fluid
- √ Remove refrigerants using certified equipment, and recycle or dispose of the refrigerant in accordance with federal regulations
- √ Before moving incoming vehicles to storage, remove batteries, and store on a pallet under cover, or outside in a leak proof container away from traffic areas
- √ Promptly store fluids in the proper containers or tanks that are labeled with the contents, kept closed other than when being filled, and in good condition with no leaks or defects
- √ Maximize the re-use or recycling of fluids removed from vehicles
- √ Dispose of greasy rags, oil filters, air filters, batteries, spent coolants and degreasers properly
- √ Inspect storage containers and tanks to detect potential leaks
- √ Any spills should be cleaned up immediately; any resulting contaminated soil or absorbent should be removed and stored in a separate labeled container for proper disposal
- √ Do not pour liquid waste down floor drains, sinks or outdoor storm drains
- √ Store engines, transmissions, and other oily or greasy parts that are removed from vehicles on a concrete or impervious surface that is protected from precipitation and storm water runoff
- √ Store any waste tires that are removed from vehicles in a central location, and do not allow the number to exceed four hundred (400) tires

Section 3.0 - Areas of Concern

This section covers the different operations that are typically found in auto salvage operations. A brief description of the area of concern, and explanations for each question that is found in the checklist, are included in this section.

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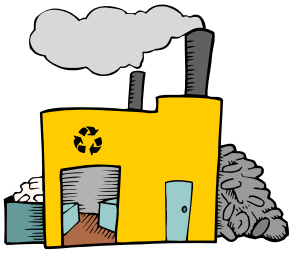


Section 3.A – Air Pollution Control

Auto salvage facilities should be aware of issues related to air pollution and are also responsible for any permits that may be required for specific operations. Potential air pollution sources are activities that generate particulates, dust, fumes, gases, mist, smoke, vapors, or odors. Specific air regulations referred to in this section can be found on RIDEM's web site at: http://www.dem.ri.gov/pubs/regs/index.htm#Air.

The following topics may apply to the operations of your auto salvage facility, and compliance with applicable air pollution control regulations is described below:

i. ***Do you conduct any automobile refinishing at your facility?*** Auto refinishing operations (such as spray painting, spray gun cleaning with solvents) are regulated under RIDEM ***Air Pollution Control Regulation # 30 "Control of Volatile Organic Compounds from Automotive Refinishing Operations***". If any auto refinishing operations take place at your facility, make sure that all requirements are complied with.

   Surface preparation such as sanding or grinding may be regulated under RIDEM ***Air Pollution Control Regulation # 5 "Fugitive Dust***", which requires that facilities keep dust confined to their own property.

   Also, carrying out auto refinishing operations at your facility requires that you be licensed by the RI Department of Business Regulation as an "Auto Body Shop" or as a "Salvage Rebuilder".

ii. ***Do you clean or degrease any parts with solvents?*** If any degreasing or cleaning of parts uses solvents, you must comply with RIDEM ***Air Pollution Control Regulations # 22 "Air Toxics" and # 36 "Control of Emissions from Organic Solvent Cleaning Operations***". Self-contained parts washers that use petroleum-based fluids like mineral spirits must also be managed according to RIDEM air pollution control regulations as well as hazardous waste regulations (see Section 3.K).

iii. ***Do you have a boiler, furnace, or space heater at your facility in which you burn any waste oil by itself or mixed with your regular fuel?*** Burning waste oil on site is permitted by air pollution control regulations with oil burners that have a capacity of less than one (1) million BTU's without a

permit. The new used oil regulations will require registration with RIDEM for oil burners that have a capacity greater than 500,000 BTU. If you have an oil burner with a capacity between 500,000 and one (1) million BTU's and have questions, check with RIDEM/OTCA.

iv. ***Do you melt or burn any materials to recover metals at your facility?*** If you burn or melt any materials to recover metals, you need to contact RIDEM/OTCA to determine what federal and state regulations may apply. For example, EPA has a federal regulation that regulates sweat furnaces and other equipment.

v. ***Do you burn any waste such as paper, wood, or cardboard at your facility (not including waste oil mentioned in iii. above)?*** RIDEM ***Air Pollution Control Regulation # 4*** does not allow for open burning of any kind at the facility. This includes burning of any material in barrels.

vi. ***Do you have a dust control problem at your facility?*** RIDEM ***Air Pollution Control Regulation # 5 "Fugitive Dust"*** requires that facilities keep dust confined to their own property, which may require a strategy to contain dust. Some facilities may use liquids to control dust. State law does not allow the use of waste oil to be deposited on the ground to suppress dust, to avoid soil and ground and surface water contamination issues. There are approved liquids and chemicals available to suppress dust; if you intend to use a commercially available suppressant, you should check with RIDEM/OTCA to determine if any regulations apply.

vii. ***Do you have any processes that produce smoke or odors?*** Any visible air releases or noticeable odors can indicate potential non-compliance issues with various regulations, including RIDEM ***Air Pollution Control Regulations # 1 "Visible Emissions" and # 17 "Odors"***.

viii. ***If you answered "Yes" to any of the questions above, have you contacted RIDEM to discuss these activities?*** Answering "Yes" to any of the above questions means that you should contact RIDEM/OTCA for assistance, with any questions or concerns about an air pollution control-related issue.

Section 3.B – Freon/Refrigerant Recovery

Many vehicles that are brought to auto salvage yards contain Freon which is used in air conditioning (AC) systems. Handling Freon either for recycling or disposal must follow EPA regulations. RIDEM normally does not have regulatory jurisdiction in this area; but as part of the certification program, RIDEM and URI can provide assistance to ensure that the relevant regulations are complied with. More information can be found on EPA's web site: http://www.epa.gov/ozone/index.html, or by contacting EPA staff:

Abdi Mohamoud (617) 918-1858 or
Roy Crystal (617) 918-1745

i. ***Do you remove air conditioner units from the motor vehicles that come into your facility?*** If your facility does not remove air conditioning units, you can skip this section. However, if vehicles are dismantled and/or crushed at your facility with the air conditioning units intact, chances are that you would be in violation of EPA's regulations.

ii. ***Is Freon properly recovered and recycled prior to scrapping or crushing vehicles?*** As mentioned in (i), Freon has to be removed before any vehicle is subject to any recycling operations including crushing.

iii. ***Are your technicians EPA-certified?*** Any worker that removes Freon using EPA-approved equipment must also be properly trained through an EPA-approved training program. More information on technician certification can be found on EPA's website: http://www.epa.gov/ozone/title6/609/technicians/609certs.html.

iv. ***Do you use EPA-approved refrigerant recovery equipment?*** EPA-approved equipment must be used, and details can be found on EPA's website: http://www.epa.gov/ozone/title6/609/technicians/appequip.html.

v. ***Do you recycle refrigerants either on-site or off-site?*** Please indicate how the recovered refrigerant is handled.

vi. ***Do you ensure that refrigerants are not vented into the air?*** It is important to make sure that 1) all AC unit openings are sealed after evacuation to prevent leaking of residual refrigerant and 2) storage tanks are not overfilled.

Section 3.C – Antifreeze Management

Used antifreeze drained from vehicles should be considered a waste material and handled accordingly. In most cases, antifreeze is not considered a hazardous waste (see Section 3.K for explanation of "hazardous"), unless certain heavy metals are present in high enough concentrations.

i. ***Do you ship any collected antifreeze to an off-site recycling company?*** The best option to manage waste antifreeze is to have it recycled. Several recycling facilities exist in Rhode Island. It is the responsibility of each auto salvage yard to ensure that the antifreeze is shipped to a bona fide recycling company that follows all proper regulations. When the solution is considered hazardous (most likely due to high levels of certain heavy metals such as lead), proper recycling is a must. If you have any questions, it would be best to contact RIDEM/OTCA.

ii. ***Do you ship any collected antifreeze to an off-site disposal company?*** If you ship waste antifreeze to a disposal facility as opposed to a recycling facility, you may be required to follow certain additional procedures and regulations to ensure proper disposal. Characterization tests are needed to determine whether or not the material to be shipped off site is hazardous. If the antifreeze is determined to be hazardous, required handling procedures need to be followed and manifests used. More information can be found in Section 3.K.

iii. ***Is the antifreeze collected in containers that are in good condition and in such a way as to minimize spills and leaks?*** Any fluid recovered from motor vehicles, including antifreeze, should be stored in appropriate containers that do not leak and are located in safe areas to minimize the risks of accidental spills.

iv. ***Is any antifreeze discharged to either the sewer or septic line?*** For the most part, Rhode Island regulations do not allow for dumping of antifreeze into sewer or septic systems, see Section v below. Used antifreeze often contains heavy metals and oils/greases.

v. ***Do you have a permit to discharge antifreeze?*** Your facility may have a permit to discharge antifreeze, but only after a pretreatment process that removes any contaminants is approved. Without pretreatment, it is highly unlikely that a discharge permit would be granted. For sewer connections, the local POTW (Publicly-Owned Treatment Works) should be contacted to

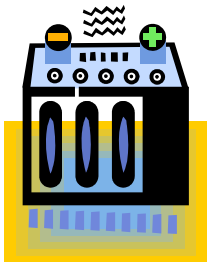
confirm eligibility; for septic systems, you should contact RIDEM's Office of Water Resources at 222-3961.

vi. ***Is any antifreeze dumped on the ground or placed in the trash?*** Used antifreeze *should not* be dumped on the ground or placed in the trash. Groundwater can become polluted and potential hazardous waste issues can arise. Landfills do not accept liquid wastes.

vii. ***Do you give or sell recycled antifreeze to customers?*** If a program is in place that properly manages recovered antifreeze, it may be possible to provide antifreeze to customers.

viii. ***Is any antifreeze reused as engine coolant (filter, test, and recycle)?*** A properly set up recycling system is a good pollution prevention practice in that all fluid management takes place on-site with minimum amounts of waste shipped off-site. While off-site shipping for recycling is considered an acceptable approach for handling used antifreeze, liabilities may be reduced with on-site reuse or recycling, since smaller amounts are being transported.

Section 3.D – Lead Acid Batteries



Both acid and lead found in vehicle batteries can pose serious health and environmental hazards, so batteries must be handled with care and according to regulations.

i. ***Do you test the batteries that are removed from vehicles to determine if they are to be reused, recycled, or disposed of?*** It is prudent to inspect and test all batteries that are removed from vehicles. Those batteries that are in good condition can be recharged and sold again. Any batteries that cannot be sold on-site can be sent off for recycling. It is important to recycle whenever possible to 1.) ensure that materials are eventually reused (not thrown away), and 2.) avoid more complicated regulations dealing with hazardous waste disposal.

ii. ***Do you store used lead batteries in a safe manner to prevent spills and leaks?*** "Safe" means storing indoors if possible, and not stacked more than five (5) batteries high. They should be kept in either a closed, leak-proof container or on a curbed, coated, or lined concrete surface with spill controls such as drip pans. Baking soda or lime should be available near the batteries to neutralize any acid leaks. Wooden pallets are also okay to use as long as the surface below the pallets is properly lined.

iii. ***Do you inspect the stored batteries for leaks and cracks on a weekly basis?*** It is good management practice to check the batteries weekly for cracks and leaks. As long as a proper storage system is in place (see ii), any leaks that do occur can be controlled to prevent dangerous acid/lead releases. Once discovered, the damaged batteries should be contained and shipped off-site as soon as possible.

iv. ***Do you send used lead batteries to an off-site recycling facility?*** As discussed, any used batteries shipped off-site should be sent for recycling whenever possible. Lead acid batteries are exempt from hazardous waste regulations if recycled or returned to a battery distributor or manufacturer and documentation is maintained.

v. ***Do you send used lead batteries to an off-site disposal facility? If disposed of, do you manage the batteries as a hazardous waste?*** If it is determined that any batteries need to be shipped for disposal, if it is needed usually being due to damage to the battery casing, universal waste or

hazardous waste regulations must be followed. Requirements include using proper shipping papers (Bills of Lading for universal waste and Uniform Hazardous Waste Manifests for hazardous waste), and shipping to a licensed disposal facility. More information can be found in Section 3.K.

Section 3.E – Fuel/Gasoline

Gasoline is considered a potential risk because of the low flash point and high flammability. It is therefore important to ensure that used fuel is removed and stored properly prior to any crushing and recycling of fuel tanks.

i. ***Do you drain fuel tanks using an air-powered pump or some other method that eliminates fire/explosion risk?*** Safe removal of fuel from tanks are not only common sense, but may also be governed by National Fire Protection Association (NFPA) and Occupational Safety & Health Administration (OSHA) regulations. Any operation that uses exposed electric components or is performed carelessly can pose serious risks.

ii. ***Do you empty fuel tanks over an impermeable surface? Do you empty fuel tanks over the ground surface?*** – To ensure that environmental regulations are complied with, it is important that fuel removal occurs over some type of impermeable surface like cement, metal, or specially-lined floors. If any gasoline spills and penetrates any ground surfaces, hazardous waste or investigation and remediation of hazard material releases regulations may apply, since the contaminated soil may need to be remediated and handled as a hazardous waste.

iii. ***Do you remove fuel tanks prior to crushing?*** It is important to ensure that all fuel is drained prior to removal of tanks.

iv. ***Do you store fuel tanks outside in a manner to allow ventilation, but not accumulate precipitation?*** While tanks should have been drained as much as possible, there might be residual fuel vapors left in the tank. Totally enclosed tanks could pose a danger with vapor build-up especially if exposed to sunlight and heat. Furthermore, the tanks should not be placed in such a way that would allow precipitation to accumulate and drain trace fuel onto the ground; stormwater management becomes an issue if any fuel leaks from the tanks (see Stormwater section 3.J).

v. ***Do you determine whether the recovered fuel is usable or waste?*** The prime objective is to reuse recovered fuel as opposed to managing it as a hazardous waste. It is important to have a reliable system in place to determine whether the fuel can be reused. There is filtration equipment

available commercially to clean the fuel if solids are present. If other contamination like oil or water is detected, it may be more difficult to reuse the fuel. Therefore, it is important to minimize contamination by implementing a sound recovery operation.

vi. ***Do you store recovered fuel in appropriately-labeled containers?*** All fluids and chemicals should be stored in easy-to-read containers to avoid mishandling and unwanted mixing. Because of the potential hazards associated with gasoline, National Fire Protection Association (NFPA) regulations should be followed (http://www.nfpa.org). If above ground storage (AST) or underground storage (UST) tanks are used, the applicable RIDEM regulations need to be complied with.

vii. ***Are these containers leak-proof with spill controls and always closed when not in use?*** Per NFPA regulations, approved containers need to be used to store gasoline. Provisions also need to be in place to control accidental spills. When not in use, the containers must be kept closed to avoid potential spills and to reduce fire/explosion risks.

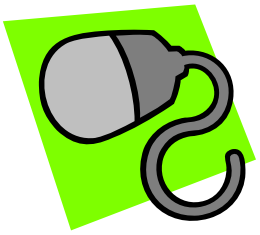
viii. ***Do you inspect the containers often to check for leaks?*** It is a best management practice to check containers for leaks on at least a weekly basis. Any leaking or damaged container should be replaced immediately.

ix. ***Is fuel safely reused on-site?*** Many facilities do use recovered gasoline for on-site equipment and vehicles. As long as NFPA regulations governing safe handling are followed, on-site reuse of fuel is recommended since potential problems with extra handling and off-site transportation are minimized.

x. ***Do you ship any waste fuel to a recycling or disposal facility as hazardous waste?*** If any recovered fuel is disposed of as a hazardous waste, RIDEM regulations must be complied with. More information can be found in Section 3.K.

xi. ***Is gasoline given to employees?*** It is common practice to reuse recovered fuel directly on-site, such as using it in facility equipment or giving it to employees. As long as the transfer is done safely, this practice is encouraged.

Section 3.F – Auto Mercury Switches



Mercury is a neurotoxicant that can cause serious brain and nervous system damage in humans. It remains in the environment for years without breaking down, accumulating in higher concentrations as it moves up the food chain. Some older cars and trucks have a convenience light switch assembly or capsule that contains mercury and which is commonly found fastened to the underside of a car's hood and/or trunk. Once a car is sent to the salvage yard and later smelted, the mercury from the switch (or mercury-added component) can be released into the air, eventually contaminating our drinking water as well as the fish we eat. It is therefore important to handle mercury switches with care and according to regulations. The Rhode Island Auto Mercury Collection Law can be found on the Rhode Island General Assembly website at http://www.rilin.state.ri.us/Billtext/BillText06/HouseText06/H8220aa.pdf

RIDEM/OTCA auto mercury switch contact:	Beverly Migliore 222-6822, Ext. 7503
End-Of-Life Vehicle Solutions (ELVS):	877.225.ELVS (3587)

i.a. ***Do you remove mercury switches from vehicles?*** As of July 2005, convenience light switches containing mercury must be removed from "end-of-life" vehicles and properly recycled or properly disposed of as universal or a hazardous waste, in accordance with the Rhode Island Mercury Reduction and Education Act. Currently, the Act applies only to the convenience light switches that contain mercury, but proper removal and disposal of mercury capsules from anti-locking brake system (ABS) switches is highly encouraged.

Auto mercury switch removal information is included in **Appendix C**, including a listing of vehicles that contain mercury convenience light switches, vehicles that contain mercury ABS G-force sensors, and guidance and information on removal and recycling of mercury auto switches and on ABS G-force sensor removal procedures.

i.b. ***Do you attempt to remove the mercury from the capsule that is inside the switch?*** **Under no circumstances** should you attempt to remove the mercury from the capsule that is inside the switch. A handler of universal waste (such as mercury switches) must manage mercury-containing devices in a way that prevents releases of any mercury to the environment. If you remove mercury from the capsule inside the switch, the mercury is now considered to be a hazardous waste, imposing greater regulatory

requirements. In addition, the potential threat to human health and safety is greatly increased, and hazardous waste management and disposal requirements are much stricter than those for universal waste.

ii. ***Do you store the removed switches in a heavy-duty plastic container?*** A handler of universal waste must store any universal waste mercury-containing device in a container. The container must be closed, structurally sound, and compatible with the contents of the mercury-containing devices.

iii. ***Do you store the container in a safe place and label the container properly to prevent misuse and exposure to workers?*** A container in which the mercury switches are collected must be labeled or clearly marked with one of the following phrases:

"Universal Waste – Mercury-Containing Device(s)";
"Waste Mercury - Containing Devices", or;
"Used Mercury - Containing Devices"

iv. ***Do you send the switches to a recycling company?*** Manufacturers of motor vehicles sold in Rhode Island must pay to the vehicle recycler that removed the mercury convenience switch, the cost of removal, collection, and the recovery system for the switches, with a minimum of $5.00 per mercury convenience switch removed.

v. ***Do you send the switches to a disposal company?*** Mercury switches that are leaking or damaged, and thus sent off-site for disposal, must be managed as a hazardous waste. Transporting and disposing of mercury switches as hazardous waste is more costly and is more strictly regulated than if the switches were managed and recycled as a universal waste. See Section 3.K for information on handling hazardous waste.

vi. ***Is the waste shipped as a hazardous/universal waste?*** Mercury switches can and should be managed as a universal waste in Rhode Island. This means that mercury switches can be self-transported by the auto salvage workers to a licensed recycling facility, as long as the switches are transported in properly labeled containers that are closed, structurally sound, and compatible with the contents of the mercury-containing devices. Managing mercury switches as a universal waste eliminates the financial and regulatory burdens associated with managing the switches under the stricter hazardous waste regulations.

vii. ***Do you remove other mercury-containing parts such as display screens from DVD players and navigation system sources?*** Currently, the Act applies only to the convenience light switches that contain mercury, but proper removal and disposal of other mercury-added products, such as ABS G-force sensors, DVD players and navigation system sources from end-of-life vehicles, is highly encouraged.

Section 3.G – Waste Tires

There are certain regulations and concerns related to the handling and storage of scrap tires. Tire piles are a fire hazard and a prime breeding area for mosquitoes and rodents that could transmit dangerous diseases. It is important for salvage yards to comply with all pertinent regulations and to implement appropriate measures to prevent hazards. Specific waste tire regulations (Solid Waste Regulation # 5) referred to in this section can be found on RIDEM's web site at: http://www.dem.ri.gov/pubs/regs/regs/waste/swrg97_5.pdf

i. ***Do you store waste tires at your facility?*** If your facility stores any number of tires for a meaningful period of time, you should comply with requirements described in the remaining part of this section. If you do not remove tires or if you immediately send them off-site, you can skip this section and continue to Section 3H.

ii. ***Do you store the tires outside?*** In many cases, tires are stored outside because of convenience and accessibility. However, it is important to make sure that certain procedures are followed to minimize risks (see the following questions).

iii. ***Do you store tires in a trailer, shed, or other enclosed container?*** If possible, storing tires to prevent direct exposure to the weather elements is preferred, to avoid accumulation of water which can be breeding grounds for mosquitoes. It is not required, and it may be impractical to store a large number of tires in an enclosed container, but it should be considered for best management purposes. At a minimum, keep tire piles covered to prevent entrapment of water.

iv. ***Do you take the tires off the rims?*** Tires are sometimes taken off rims, especially if the rims are aluminum and have a high re-sale value. If tires can be stored on-site and sent to a recycling facility with the rims still intact, the number of potential breeding areas for mosquitoes is reduced.

v. ***Do you send the tires to a recycling facility?*** The best approach to dealing with waste tires is to send them to a recycling facility. Resources are conserved and overall management costs from waste can be minimized by choosing recycling over disposal.

vi. ***Do you send the tires to a disposal facility?*** A disposal facility typically utilizes operations that prepare and/or process the waste for final disposal to landfill or other waste storage. If tires are sent to a disposal facility rather than a recycling facility, the salvage yard must confirm whether the waste is hazardous or not. To avoid more complex procedures, it is recommended that all waste tires be sent to a recycling facility.

vii. ***Do you store more than 400 tires at any given time?*** If four hundred (400) or more tires are stored at any time, RIDEM ***Solid Waste Regulation # 5 "Waste Tire Storage & Recycling***" (referenced above) needs to be complied with; a license from RIDEM is required to be able to store 400 or more tires. If fewer than 400 tires are stored on site, a license is not required, but it is still important that best management practices are followed to avoid environmental and health risks. If you store less than 400 tires at any given time, items below are not required but you can view the information as recommendations, and then proceed to Section 3H.

viii. ***Do you store tires for periods longer than 6 months?*** Per RIDEM Solid Waste Regulation # 5, if you store more than 400 tires, you cannot keep them for more than six (6) months. If Regulation # 5 does not apply, it is still a good practice to store as few waste tires as possible at your facility, and make sure that tires are removed from the property as soon as possible.

ix. ***Do you store tires in piles? If so, are the tire piles lower than 20 feet in height?*** If you store more than 400 tires, the piles must not exceed 20 feet in height. Even if fewer than 400 tires are stored, it is recommended not to exceed these dimensions for safety reasons.

x. ***Are the tire piles less than 200 feet in length and 50 feet in width?*** If you store more than 400 tires, horizontal dimensions of the tire piles must be less than 200 feet long and 50 feet wide. Even if fewer than 400 tires are stored, it is recommended not to exceed these dimensions for safety reasons.

xi. ***Are the tire piles located more than 50 feet between piles and away from buildings and other structures?*** If you store more than 400 tires, you must make sure that the piles are more than 50 feet apart and 50 feet away from structures. Even if fewer than 400 tires are stored, it is recommended to follow these guidelines for safety reasons.

xii. ***Are the tire piles located more than 200 feet from property lines?*** If you store more than 400 tires, per Regulation # 5, you must make sure that the piles are more than 200 feet from property lines. Even if fewer than 400 tires are stored, it is recommended to follow these guidelines for safety reasons.

xiii. ***Do you cover outside tire piles or provide for other mosquito control?*** If you store more than 400 tires, in accordance with Regulation # 5, you must make sure that acceptable mosquito control measures are in place. Tires stored outside should be covered to prevent precipitation from accumulating since mosquitoes breed in stagnant water. During the warmer months, RIDEM-approved mosquito abatement techniques should be used. Any questions can be directed to the Mosquito Abatement Coordination Office at (401) 789-6280.

xiv. ***Do you store tires in a way that prevents fires and allows for fire control if needed?*** Tires, even in small piles, can pose a fire risk because the raw materials (rubber) used to make tires can burn under certain conditions. While unlikely for smaller piles, it is important that the piles can be easily accessible in the case that fires do start (easy access to water, removal of obstacles like weeds and objects).

xv. ***Do you shred or cut tires into smaller pieces?*** If you shred tires, it is recommended that the pieces are 8 inches or less in length and the piles do not exceed 200 feet in length, 150 feet in width and 20 feet in height.

Section 3.H – Used Oil

Like fuel, used engine oil is one of the common fluids removed from motor vehicles. Proper management of recovered oil is subject to a range of different regulations depending on individual situations. ***New used oil management regulations were adopted on March 4, 2007, as Rule 15.00, Used Oil Management Standards, in the Rules & Regulations for Hazardous Waste Management***, which are found at http://www.dem.ri.gov/pubs/regs/regs/waste/hwregs07.pdf. These regulations governing used oil management are not as restrictive as those related to hazardous waste, but the new rules have to be understood and complied with to avoid any regulatory problems. Under the new regulations, those who generate used oil only and do not generate hazardous waste would not be required to register with RIDEM (maintain an EPA Identification Number).

i. ***Is used oil stored in tanks or containers that are in good condition with proper spill control measures and secondary containment?*** Used oil must be stored in containers that are in good condition, free of severe rusting, corrosion or structural defect and liquid tight with no visible leaks. You need to implement secondary spill control measures in case the containers leak; unexpected accidents or leaks could occur and contaminate the ground nearby. Adequate secondary containment includes placement of the containers on an impermeable surface such as concrete, surrounded by a berm that is high enough to capture 100% of the container capacity. Additionally, containers that are stored outside must be placed under a roofed structure and protected from precipitation and flooding.

   Also, Section 10 (Above Ground Storage Facilities) of the Oil Pollution Control Regulations applies to above ground oil storage tank facilities with a combined capacity of over five hundred (500) gallons. It is found at http://www.dem.ri.gov/pubs/regs/regs/compinsp/oilpollu.pdf)

ii. ***Do you label the containers as "Used Oil"?*** It is a requirement to clearly and permanently mark any containers that store used oil with the words "Used Oil".

iii. ***Do you mix used oil with other non-oil wastes?*** It is a poor management practice to mix waste oil with other non-oil wastes. Other than an exception of mixtures of used oil and hazardous waste in which the hazardous waste mixed is hazardous only because it exhibits flammability characteristics,

mixing of hazardous waste with used oil is strictly ***prohibited***. If you do mix different wastes, you are responsible for characterizing the waste and managing the mixture accordingly. The mixture may be classified as a hazardous waste, subject to applicable hazardous waste regulations and more expensive disposal costs.

iv. ***If used oil filters are removed, are they*** **properly managed by draining and proper recycling?** To comply with used oil regulations, the used oil should be drained for recycling, and the filters processed for scrap metal reclamation with documentation of the recycling of the filters.

v. ***Please indicate how the recovered oil is stored.*** Per used oil regulations, the containers used to store waste oil must be in good condition.

vi. ***Do you ship used oil to a re-refining, recycling, or disposal company?*** Used oil is managed under Rule 15.00 of RIDEM's ***Rules & Regulations for Hazardous Management***. Under the used oil regulations, you are now able to store up to 1,230 gallons (24 drums) of waste oil without a time limit. Any excess volume (over 24 drums) is required to be shipped off site within 180 days of accumulation. In most cases, a manifest will not be required to ship, using a used oil transporter. Also, you may self-transport up to 55 gallons of used oil to a used oil burning or processing facility.

vii. ***Do you use oil to suppress dust on your property?*** Using used oil or oil-based chemicals to control dust blowing from unpaved areas ***is strictly prohibited***, since the oil would likely contaminate the ground and adversely affect the environment. RIDEM regulations covering contaminated soil would apply, and might place your facility in a non-compliant situation. If dust control is needed, there are environmentally safe suppressants which can be used.

viii. ***Do you burn oil to heat your building?*** If the burner's BTU capacity exceeds 1 million BTU/hour, RIDEM Air Pollution Control Regulation # 20 (Burning of Alternative Fuels) applies, and written approval from RIDEM is required. Under the used oil regulations, facilities such as auto salvage yards will be allowed to burn waste oil on-site in burners with less than 500,000 BTU/hour capacity without a permit or registration. But for burners with BTU capacities between 500,000 and 1,000,000 BTU/hour,

registration with RIDEM will be required. Call RIDEM/OTCA at (401) 222-6822 if you have any questions.

ix. ***Do you use used oil for any purpose on-site besides heating purposes?*** Besides heating, used oil should not be used for any other applications. If there is what you consider a legitimate use that does not threaten the environment and complies with all regulations, you should call RIDEM/OTCA at (401) 222-6822 to discuss the application.

x. ***How much used (waste) oil do you generate annually?*** This includes all used oil that you generate, including used oil that you burn on-site in waste oil burners as well as used oil shipped off-site for recycling or disposal.

How much used (waste) oil do you ship off-site annually? This includes only used oil that is generated at the facility that is shipped off-site for recycling or disposal.

Section 3.I – Wastewater Discharge

Process wastewater may be generated at auto salvage yards if car washing, parts cleaning or any other operation that uses water exists on site. Depending on the location and wastewater discharge capabilities, different regulations may apply. See **Appendix F** for POTW (or Wastewater Treatment Facility) information.

i. ***Is process wastewater generated by any of the following business activities (sanitary wastewater from toilets and hand washing is not considered process wastewater)?*** Typical operations at salvage yards that might use water and then generate wastewater include steam cleaning, power washing, flushing radiators, painting or degreasing. If you engage in any operations that use water and thus produce wastewater, you should continue with this section. If there are no water-based operations on site, you can skip this section.

ii. ***Do you manage any process wastewater as hazardous waste?*** In some instances, the resulting wastewater could be considered hazardous depending on the characteristics of the waste (pH, heavy metal content). You must properly characterize the wastewater to determine if it is hazardous. If so, all proper hazardous waste regulations should be followed (see Section 3.K). Most wastewater types are not usually considered hazardous waste, but there still may be a high enough level of contaminants that require proper handling as related to discharge to sewer, septic or ground.

iii. ***Is any process wastewater treated or reused onsite?*** Wastewater management may include different options such as treating the water with technologies like filtration or evaporation. Also, reusing the water in the same or different application may be a possibility to minimize the amount of wastewater actually generated.

iv. ***Is a floor trench or floor drain located in the facility?*** If a floor trench or drain exists, it is important to determine where the drain discharges to (ground outside, drywell, cesspool, leach field, sewer, septic system) and what could potentially be discharged (wastewater, other fluids). If an open drain or trench exists and if it is unknown where it discharges to, it is imperative that the discharge point be located immediately. You want to

make sure that you have total knowledge of any process discharge from your facility.

v. ***Does any process wastewater go into a drywell, cesspool, septic system, leach field, onto the ground outside or otherwise potentially impact groundwater?*** If any wastewater enters these locations, you must contact the RIDEM Office of Water Resources at (401) 222-3961 to determine whether or not a permit is needed. Any process wastewater discharge into the ground would most likely need to be checked by RIDEM.

vi. ***Does any of your process wastewater go into a public sewer system?*** If any of the wastewater that comes from non-sanitary operations like pressure washing is discharged to a public sewer system, you would most likely need a permit from the local POTW (publicly-owned treatment works) that treats your sewer water. Depending on the nature of the wastewater, you may also need to pre-treat the water using some type of separations system to meet sewer discharge regulations. For example, oil & grease is typically regulated at 100 mg/l; the water that is discharged to sewer must contain oil & grease levels under 100 mg/l. There are other parameters like pH, heavy metals and organics that need to be monitored. You should contact your local POTW to find out what requirements pertain to sewer discharge.

vii. ***Is any process wastewater discharged into surface waters including a stream, river, waterway, pond, lake or wetland?*** In order to discharge any wastewater to a natural river way, RIDEM Office of Water Resources must be informed and a special permit (RIPDES) is required. Any release of process wastewater into a natural waterway without the proper permits, whether intentional or unintentional, is a violation and subject to serious penalties.

viii. ***Do you have any process wastewater shipped off-site for disposal or reclamation by an outside contractor?*** If wastewater is shipped off site, you need to first determine whether the wastewater is hazardous or not (see Section 3.K). If it is deemed hazardous, proper storage and shipping procedures have to be followed. If it is not hazardous, you still need to make sure that proper containment is used and that the outside contractor removes and transports the wastewater in a safe and reliable manner.

Section 3.J – Stormwater Management

All salvage facilities should be concerned about how rain and snow can possibly transport potential pollutants from their property to the environment. Because many items (cars, parts) are usually stored outside without cover, it is important to ensure that all fluid is properly contained and leaks eliminated. It is also important to implement "Good Housekeeping Measures", to reduce or eliminate the exposure of activities such as fluids removal, dismantling and crushing, to precipitation.

i. ***At your site, are there any of the following: above-ground outdoor storage tanks, hazardous waste storage area, outdoor construction activities?*** All tanks, storage areas and construction activities should be closely monitored to ensure that no spills or leaks occur that could potentially allow the transport or spread of contaminated material into the environment.

ii. ***Does your site generate a point source of stormwater discharge?*** As defined in the ***Regulations for the Rhode Island Pollutant Discharge Elimination System "RIPDES Regulations"***, which is found at http://www.dem.ri.gov/pubs/regs/regs/water/ripdes03.pdf, a "point source" means "any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, from which pollutants are or may be discharged." Point source discharges to waters of the State are regulated by the RIPDES Program in the RIDEM Office of Water Resources and require a permit.

iii. ***Does precipitation (rain/snow) or runoff come into contact with any of your business activities or materials?*** Any materials stored outside without protective cover will be exposed to precipitation and/or runoff, which could result in the contamination of runoff. It is important that no materials leak, wash away or dissolve as a result of exposure to precipitation. In addition, any activities performed on-site, such as fluids removal, crushing, shredding or dismantling of vehicles prior to transport to a recycling facility, etc. may also produce contaminants that may be harmful if exposed to runoff. Good Housekeeping Measures and Best Management Practices (BMPs) are essential for these sites.

iv. ***Does the stormwater discharge directly to a surface water (wetland, pond, river, cove, etc.)?*** As per the RIPDES Regulations, "Surface Water" is defined as "any waters of the State, which are not groundwater." Any point source discharges to surface waters or wetlands are regulated by RIDEM and require a permit from the RIPDES Program. (Please be aware that some facilities and activities may be subject to permitting by other RIDEM and CRMC regulations.)

v. ***Does the stormwater discharge directly to a municipal stormwater collection system?*** Any stormwater discharge to a municipal stormwater collection system is considered a point source discharge and requires a stormwater permit (i.e. a Multi-Sector General Permit) from the RIDPES Program. In addition, you may need to seek authorization from the municipality or owner of the system.

vi. ***Does the primary activity at your facility meet one of the following definitions (SIC 5015, 5093)?*** If the primary activity at your facility meets either of the above definitions, your activities are considered "Industrial" activities. Any point source stormwater discharges to waters of the State from the industrial areas of your facility require a stormwater permit from the RIPDES Program at RIDEM. Seek coverage under the Multi-Sector General Permit if applicable.

vii. ***Have you completed and submitted a Stormwater Permit Application (RIPDES) to the Rhode Island Department of Environmental Management?*** Most facilities can seek coverage under the "Multi-Sector General Permit: RIDPES Storm Water Discharge Associated with Industrial Activity (Excluding Construction)". To meet the requirements of the Multi-Sector General Permit, every facility needs to develop and implement a Storm Water Pollution Prevention Plan (SWPPP), which specifies the steps a facility will take to identify potential sources of pollution, prevent spills and leaks, implement regular inspections, train employees, manage runoff, and minimize exposure of hazardous materials and activities to precipitation and runoff.

viii. ***Did you ever apply for and get accepted into EPA's "Group Permit Application"?*** In the past, facilities that required a permit were allowed to seek coverage under EPA's Group Permit Application until the State issued a

Multi-Sector General Permit (MSGP). The MSGP was issued and became effective on 5/1/06, so those facilities covered under EPA's Group Permit Application will need to make any necessary updates to their facilities and apply for coverage under the MSGP. See RIDEM's website to obtain a copy of the MSGP at:
http://www.dem.ri.gov/programs/benviron/water/permits/ripdes/pdfs/msgp.pdf

ix. ***Have you completed and submitted a "No Exposure Certification Exclusion" form to the Rhode Island Department of Environmental Management?*** RIPDES permit coverage is not required for discharges of stormwater associated with industrial activities identified in RIPDES Regulations Rule 31 (b)(15)(i)-(ix) and (xi) if the discharger can certify that a condition of "no exposure" exists at the industrial facility or site. The No Exposure Certification Exclusion Form is intended to "self-certify" that a condition of "no exposure" exists at your facility or site. A condition of "no exposure" exists at an industrial facility when all industrial materials and activities are protected by a storm resistant shelter to prevent exposure to rain, snow, snowfall and/or runoff. See RIDEM's website to obtain a copy of the No Exposure Certification Exclusion Form:
http://www.dem.ri.gov/programs/benviron/water/permits/ripdes/stwater/pdfs/noexpos.pdf

x. ***Are there any air particulates that are emitted from your facility, which could end up on the roof or other surfaces and impact stormwater?*** Very small fragments of solid materials or liquid droplets suspended in air are called particulates; soot as a product of combustion, as well as air borne by-products associated with crushing or shredding are examples of air particulates. Typically, roof runoff can be considered uncontaminated unless it mixes with other contaminated runoff on the ground or unless specific processes, which may include activities associated with auto recycling (i.e. crushing, shredding, etc.), produce airborne contaminants that can collect on rooftops. If roof runoff is contaminated or is allowed to mix with other contaminated runoff, it will need to be properly managed.

xi. ***Are all of your business activities/materials that can impact stormwater located under a roof or tarpaulin?*** Some examples of activities/materials include fluids removal and storage, as well as crushing and dismantling. It is important to minimize exposure of materials and pollutants with stormwater to reduce treatment requirements and non-compliance liabilities.

xii. ***Are all business activities that can cause a spill or leak conducted on an impermeable surface where spills/leaks are cleaned up promptly?*** The intent is to prevent the transport of any potentially dangerous or hazardous materials from coming in contact with precipitation, runoff, soil or groundwater. In addition, be sure there are no drains that could transport any possible spills or leaks to the ground, surface waters, wetlands, or otherwise mix with stormwater without proper treatment.

xiii. ***Are all materials that are susceptible to a spill or leak located on an impermeable surface where spills/leaks are cleaned up promptly?*** Storing materials and fluids on an impermeable surface such as concrete or pavement allows drips, spills and leaks to be detected easily during inspections and cleaned up promptly (i.e. before the next rain event) to prevent soils from being impacted. Not only is it important to ensure Good Housekeeping Measures are in place to clean up any spills or leaks, but it is equally important to ensure that if stormwater comes in contact with these pollutants, an effective system is set up to prevent the transport of pollutants and facilitate proper clean-up.

xiv. ***Do you crush or shred any non-automotive waste streams (discarded appliances, misc. scrap metal, empty transformer casings, etc.)?*** If you perform these activities at your facility, you may be subject to requirements and regulations for Sector N: Scrap Recycling Facilities (SIC 5093) in addition to Sector M: Automobile Salvage Yards (SIC 5015) in the RIDPES Multi-Sector General Permit. Non-automotive waste streams may need to be handled differently than automotive waste streams. For example, appliances may contain mercury switches and old transformer casings may be contaminated with PCBs. If a facility handles these waste streams, BMPs should be implemented to prevent cross-contamination of the scrap materials. See EPA's website for compliance assistance:
http://www.epa.gov/compliance/assistance/sectors/index.html
http://www.epa.gov/compliance/resources/publications/assistance/sectors/autopub.html

xv. ***Do you treat stormwater?*** Best Management Practices (BMPs), such as detention basins, oil/water separators, filtration units, swirl concentrator units (such as Aqua-Swirl, Stormceptor, Vortechnics, etc.), deep-sump catch basins, infiltration devices with pretreatment, etc., can be used to manage and treat stormwater on site. BMP selection is dependent upon the type of pollutant sources present at the site. This treatment is typically part of a

facility's Storm Water Pollution Prevention Plan, which is required by a RIPDES stormwater permit from RIDEM.

xvi. ***Do you reuse stormwater?*** Some facilities may have processes that collect and reuse stormwater. If yours is one of them, we would like to know what you use it for in addition to what treatment it receives either before or after reuse.

xvii. ***Does any of your stormwater ultimately enter a public or private sewage disposal system?*** Typically, stormwater is not allowed to discharge into a sewage disposal system, unless your facility discharges stormwater into a Combined Sewer Overflow (CSO), which is a system designed to mix both sewage and stormwater. If this is the case with your facility, you may be exempt from RIDEM permitting, but you will need to be authorized by the owner of the CSO. If your stormwater enters an ISDS or other underground sewage disposal system, you may be subject to regulation by the ISDS and/or UIC Programs at RIDEM in addition to the RIPDES Program.

xviii. ***Do you follow a written plan such as a Stormwater Pollution Prevention Plan; Best Management Practices Plan; EPA Spill Prevention, Control and Countermeasure Plan or Environmental Management System to manage stormwater?*** As part of the Phase II EPA requirements and in order to meet the requirements of the Multi-Sector General Permit from the RIPDES Program, each industrial facility is required to develop and implement a plan to manage and treat stormwater (i.e. a SWPPP). If you do not already have a plan in place for your facility, you will need to create one in order to comply with the state and federal regulations. Guidance to assist you with this task is found in **Appendix E**.

Section 3.K – Hazardous Waste

As a business owner, you must manage your hazardous wastes in a safe and environmentally responsible manner. Federal and State regulations place the burden on you, as the generator, to properly dispose of the waste. The generator has "cradle-to-grave" responsibility (i.e., you retain responsibility even when other companies handle and dispose of your waste). By choosing products that are less hazardous, and minimizing the amount that you generate, you can reduce your cradle-to-grave liability. If your facility does not generate hazardous waste, this section can be skipped. RIDEM's ***Rules & Regulations for Hazardous Waste Management***, referred to in this section, can be found on RIDEM's web site at: http://www.dem.ri.gov/pubs/regs/regs/waste/hwregs07.pdf

i. ***Does your facility generate hazardous waste?*** While many materials that are removed from vehicles can be considered potential pollutants and are toxic, *how* the recovered items are managed often dictates whether they are hazardous or not. For example, lead acid batteries can be sent out to a *recycler* and are therefore not considered hazardous. However, if the batteries are sent to a *disposal* facility, the batteries must be managed as a hazardous waste or universal waste. Any wastes sent to a disposal facility must be characterized to determine if the waste is hazardous.

ii. ***Regarding all your waste streams, do you have appropriate documentation or process knowledge that supports your hazardous waste determination?*** As a generator, you are required to determine whether your wastes fall into any of these three categories: 1) listed by EPA in 40 CFR 261 Subpart D; 2) demonstrate a characteristic as detailed in 40 CFR 261 Subpart C (ignitability, corrosivity, reactivity, toxicity); or 3) they meet the description of a Rhode Island Hazardous Waste as listed in Section 3.00 of the RI Rules and Regulations for Hazardous Waste Management. You can make this determination by using your knowledge of the process and materials, including available information like Material Safety Data Sheets (MSDSs), or by testing a representative waste sample. A licensed waste transporter, environmental lab, or RIDEM/OTCA can help you characterize your waste for proper disposal. If changes in your materials or process cause your waste to change, then you are required to re-evaluate it to ensure proper handling and disposal. Some transporters and disposal facilities may also require you to reevaluate your wastes each year. You

must keep records of waste analyses to confirm your identification and characterization of wastes. The lead acid batteries, for example, would be a hazardous waste or universal waste if *disposed of* rather than recycled, because of the presence of acids (corrosivity) and lead (toxicity). Please contact RIDEM/OTCA at (401) 222-6822 if you are not sure whether or not you generate hazardous waste.

iii. ***If you generate hazardous waste, do you have an EPA hazardous waste identification number?*** In order to properly handle hazardous waste, you must have an EPA hazardous waste identification number that is used in all documentation and manifests. An auto salvage facility must not generate, store, or offer for transportation, hazardous waste without having received an EPA identification number. If you do not have one and intend to manage any of your waste as hazardous, you must call the RIDEM Office of Compliance & Inspection (OCI) at (401) 222-1360 to obtain an EPA identification number. Shops also must not offer hazardous waste to commercial transporters or to treatment, storage, or disposal facilities that have not received an EPA identification number. In addition, the Transporter must have a valid RI Hazardous Waste Transporter Permit as indicated by an official sticker on the vehicle.

iv. ***Do you have proper documentation (manifests) which shows where your hazardous waste is being shipped?*** Effective on September 6, 2006, US EPA requirements to use a new federal Uniform Hazardous Waste Manifest, which will be consistent nationally, went into effect. An overview of those changes can be found in **Appendix B** of this Workbook. There is a training video found at http://www.pneac.org/hazwastemanifest/, which introduces the new manifest form, highlights the differences between the new and the previous manifest form, and provides specific instructions. The new manifest, now a six-copy document, is designed to track your hazardous waste shipment. It is the generator's responsibility to make sure that the manifest is accurate, even if it is filled out by the transporter for you. You should keep the Generator copies of the manifests for three years. Note that for waste automotive oil, the transporter may be using a log-type waste oil manifest, until such time as the new used oil regulations are adopted.

v. ***Has your facility submitted to RIDEM Office of Compliance & Inspection a list of authorized agents to sign the hazardous waste manifest?*** A generator must also submit to the RIDEM Office of Compliance & Inspection

(OCI) the names and signatures of all agents of the Generator (e.g. employees) that are authorized to sign the manifest. If these agents change, this information must be updated with RIDEM/OCI.

vi. ***Are all containers kept closed when not in use?*** All waste containers must be closed when not being filled or emptied.

vii. ***Do you recycle hazardous waste on site?*** In some cases, it may be cost-effective to recycle some wastes on site to save on costs and reduce the amount of hazardous waste generated and shipped off site. For example, if you use solvents to clean parts and you generate a significant amount of waste solvent waste, it may be worth investigating the use of recycling equipment to clean and reuse chemicals on site. You can call RIDEM/OTCA if you have questions about recycling hazardous waste.

viii. ***How much hazardous waste do you ship off-site annually?*** The amount of hazardous waste that is produced can help to determine what kind of storage system you should use. There are three options that you can use: satellite accumulation, 90-day storage, or both. More information about the different options is explained below. Basically, if you generate a small amount of hazardous waste at a slow rate, the satellite accumulation option would be appropriate, since there are fewer requirements than those for the 90-day storage system. You can call RIDEM/OTCA to obtain advice on which option is best, based on the amount of hazardous waste generated.

ix. ***Where is your hazardous waste being stored (Satellite accumulation area, 90-day storage area, or both)?*** There are different options for storing hazardous waste. If small amounts of hazardous waste are accumulated, it may make sense to set up a satellite accumulation area, or workstation accumulation. If large amounts are generated, a 90-day storage area is needed to properly manage the larger volumes of waste.

In the case in which certain wastes are continuously generated (such as mineral spirits used in a parts cleaner), the drum or container holding the chemical can be stored in a satellite accumulation area until a hauler removes the waste for off-site disposal, provided that the volume is less than fifty-five gallons (55) for each waste type, and the container is stored at or near the point of generation.

x. ***If you have a satellite accumulation area, please see below:***

a. ***Is the area clearly marked and the container(s) properly labeled with the words "Hazardous Waste" and what the contents in the container(s) are?*** The containers have to be labeled "Hazardous Waste", along with words that identify the contents. Labeling requirements for wastes stored in ninety (90) day storage areas are outlined below.

b. ***Is the container under control of the operator and at or near the point of generation?*** The satellite container must also be in good condition, and under the control of the operator of the process that generates the waste, at or near the point of generation. The maximum that can be stored in this manner is fifty-five (55) gallons for each waste stream. You should make sure that the container is protected, and although not required, maintain adequate spill control through measures such as providing secondary containment.

xi. ***If you have a 90-day hazardous waste storage area, please see below:***

a. ***Are containers labeled with the words "Hazardous Waste"?***

b. ***Are containers labeled with the name of the waste and its waste code?***

c. ***Are containers marked with the date when placed in the storage area?***

d. ***Are all containers in good condition?*** 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, or manage the waste in some other way that complies with the requirements of this part. You should always periodically inspect the waste containers, keep the containers closed when not in use, and have special spill kits readily available.

The Label

At the time that the container is being prepared for shipment, it must have the "EPA Marking" and "DOT Hazard Label" placed on it. As stated above, for hazardous waste containers, the following must be found on the label (EPA marking) being used: **HAZARDOUS WASTE – Federal**

Law Prohibits Improper Disposal. If found, contact the nearest police or public safety authority or the U. S. Environmental Protection Agency. The Generator's name and address must be placed on the label, as well as the waste name, associated waste code(s), hazard classification, and the accumulation start date. The accumulation start date is important, since you have ninety (90) days from that date to ship the waste. Environmental laboratories and aids such as Material Safety Data Sheets (MSDS) can help you to determine whether the waste is hazardous, and if hazardous, what the waste codes are and the hazardous classification. A sample of the EPA Hazardous label and the DOT Hazard label are shown below:

EPA Marking

HAZARDOUS WASTE - Federal Law Prohibits Improper Disposal. If found, contact the nearest police or public safety authority or the U.S. Environmental Protection Agency.

The Generator's Name and Address: _____
_____

Generic Waste Shipping Name:_____

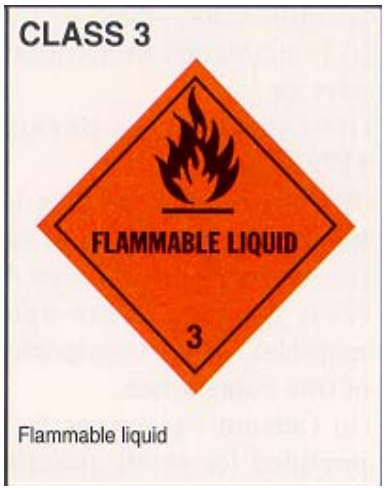
Hazard:_____

EPA Waste Code:_____

Date of Containerization:_____

Manifest Document Number:_____

DOT Hazard Label



e. ***Is the area itself secure and protected from stormwater?*** EPA and RIDEM are implementing programs to more closely regulate stormwater runoff from all auto salvage facilities. Even if your facility has already been inspected by RIDEM and deemed not to need a stormwater permit (no point discharge), it is important to make sure that all hazardous waste containment is not exposed to precipitation (it should be inside a structure or outside with adequate cover). Any leaks that could potentially be in contact with stormwater can contaminate the ground (creating another type of hazardous waste) and affect groundwater supplies. Secondary containment is also required to help contain any leaking waste.

f. ***Do you store the liquid waste with proper secondary containment?*** The area in which hazardous wastes are stored (the 90-day storage area) must have a secondary containment system which is capable of containing a leak or a spill. This containment must be designed and operated as follows:

1. A base must underlie the containers, that is free of cracks or gaps, and is sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed;

2. The base must be sloped, or the containment system must be otherwise designed and operated, to drain and remove liquids resulting from leaks, spills, or precipitation away from containers, unless the containers are elevated (for example, on wooden pallets) or are otherwise protected from contact with accumulated liquids;

3. The containment system must have sufficient capacity to contain 10% of the volume of all containers, or the volume of the largest container, whichever is greater. Containers that do not contain free liquids do not need to be considered in this determination;

4. Run-off (for outdoor storage areas) into the containment system must be prevented unless the collection system has sufficient excess capacity in addition to that required in # 3 above, to contain any run-off that might enter the system;

5. Spilled or leaked waste and accumulated precipitation must be removed from the floor sump or collection area in a timely manner that is necessary to prevent overflow of the collection system. If the collected material is a hazardous waste, it must be managed as a hazardous waste in accordance with all applicable regulatory requirements;

6. Floor drains that discharge to the sub-surface, sewer system, or direct to a waterway are strictly prohibited.

Auto salvage facilities that generate hazardous waste should immediately construct and/or purchase a containment system in accordance with the requirements listed above. It should be noted that commercial storage lockers are available, which should comply with these requirements.

g. ***Do you inspect the storage area weekly and maintain written inspection records?*** For the 90-day hazardous waste storage area, regulations require that a weekly inspection for leaks or deterioration of containers be performed, using the checklist on the following page. You should keep all records for at least three (3) years; keeping them in a designated binder is an easy way to store them and find them if necessary.

Hazardous Waste Storage Area Inspection Checklist

Weekly Inspection Checklist and Record for_____ **(facility name)**

Name/Title of Inspector:_____Date and Time of Inspection:_____

Area(s) Inspected:_____Number of Full Containers:_____

Are All Containers Closed:_____

Condition of Containers:_____
(Do containers show signs of leakage? Is there deterioration due to rust? Have containers been damaged?)

Condition/Integrity of Containment Area:_____
(Will the area effectively contain a spill or leakage? Have berms or other containment device deteriorated or been damaged?)

Is there sufficient aisle space between rows of drums (At least three feet)? _____

Are ground-wires in place for ignitable wastes (Note condition of wires as well)?_____

Is there evidence of spilled material?_____

If there was a spill, list remedial action taken (Example: Spill was cleaned and leaking drum was replaced) :_____
_____

Are drum labeling requirements satisfied?_____

At a minimum, when placed in storage, each container must be labeled with the words "Hazardous Waste", the name of the waste and the waste code, and the date when placed in storage. At the time being prepared for shipping, each container in the hazardous waste storage area must be labeled with the following information:

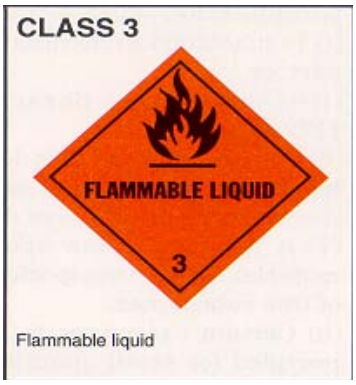
EPA Label

HAZARDOUS WASTE- Federal Law Prohibits Improper Disposal. If found, contact the nearest police or public safety authority or the U.S. Environmental Protection Agency.

The Generator's Name and Address: _____
_____

Generic Waste Shipping Name:_____
Hazard:_____
EPA Waste Code:_____
Date of Containerization:_____
Manifest Document Number:_____

DOT Hazard Label



Additional remarks or actions to be taken:_____
_____
_____

Record this inspection on an inspection log, and keep these records for at least three (3) years from the date of inspection.

xii. ***Are you shipping your hazardous waste off-site according to the 90-day storage time limit?*** You have ninety (90) days to ship the waste off site from the date written on the hazardous waste label. While satellite accumulated waste has no storage time limit, as soon as the volume accumulated reaches fifty-five (55) gallons, the container must be moved to the 90-day storage area within three (3) days, the container must have the proper labeling and all other requirement for ninety day storage areas must be met. The container must be shipped within ninety (90) days. An alternative to this situation is to keep a close eye on satellite accumulated waste, and arrange for shipment prior to the volume reaching fifty-five (55) gallons.

xiii. ***If the 90-day storage area contains ignitables, please see below;***

i. *Is the area separated from sources of ignition?*

ii. *Are "No Smoking" signs posted in the area?*

iii. *Is the area located at least 50 feet from the property line?*

iv. *Are drums of ignitable waste electrically grounded?*

You must take precautions to prevent accidental ignition or reaction of ignitable or reactive waste. The waste must be separated and protected from sources of ignition or reaction, including but not limited to: open flames, smoking, cutting, welding, hot surfaces, frictional heat, sparks (static, electrical, or mechanical), spontaneous ignition (eg. from heat-producing chemical reactions), and radiant heat. While ignitable or reactive waste is being handled, the owner or operator must confine smoking and open flame to special designated locations. "No Smoking" signs must be conspicuously placed wherever there is a hazard from ignitable or reactive waste. Typically, auto salvage yards may generate ignitable waste, such as gasoline. Note that the Rhode Island definition of ignitables is more stringent than the federal definition (A flash point of 140 degrees F vs. 200 degrees F). <u>Drums containing ignitable wastes must also be electrically grounded</u>.

xiv. ***Does your facility contain and maintain emergency equipment designed to help reduce the possibility of an explosion, fire or accidental release of hazardous materials?*** Your facility must be maintained in

order to minimize the possibility of a fire, explosion, or unplanned release of hazardous waste constituents. Your facility must have the following:

1. An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel

2. A device, such as a telephone (immediately available at the scene of operations) or a hand-held two-way radio, capable of summoning emergency assistance from local police and fire departments.

3. Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment.

4. Water at adequate volume and pressure to supply water hose streams, foam producing equipment, or water spray systems. Adequate water pressure can be determined during the annual sprinkler test required by OSHA and local fire departments.

5. All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, must be tested and maintained as necessary to assure its proper operation in time of emergency.

6. Whenever hazardous waste is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation must have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee.

7. The owner or operator must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency.

8. The owner or operator must attempt to make arrangements to familiarize local police, fire departments, and emergency response teams with the layout of the facility, properties of hazardous waste handled at the facility and associated hazards, places where

facility personnel would normally be working, and possible evacuation routes. (Note: In cases in which more than one police or fire department might respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department, and agreements with any others to provide support to the primary emergency authority, should be obtained).

9. The owner or operator must attempt to make arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility, and the types of injuries or illnesses that could result from fires, explosions, or releases at the facility.

10. With regard to # 8 and # 9 above, if State or local authorities decline to enter into such arrangements, the owner or operator must document the refusal in the operating records of the facility.

XV. ***Does your facility have a <u>written</u> Contingency Plan designed to help reduce hazards associated with the possibility of an explosion, fire or accidental release of hazardous materials?*** Each facility must have a written contingency plan designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned release of hazardous waste to air, soil, or surface water. The plan should outline specific steps that company personnel will take in response to emergencies. To help auto salvage yard facilities to develop their contingency plans, a guidance document has been included as **Appendix A**, to assist you in the development of a Contingency Plan. This guidance is to be used for guidance only; you should not fill in the blank spaces and use it as your Contingency Plan. Once developed, this plan is required to be submitted to local emergency response providers. Should the response providers be unwilling to make arrangements with you, document this in the operating records of the facility.

In the development of this plan, you must designate an emergency coordinator. Should an emergency arise, the emergency coordinator must be prepared to act quickly to protect employees, emergency response personnel, and the environment. Also, evacuation routes should be

posted, along with exit signs, in areas where hazardous wastes are handled or stored.

Please contact RIDEM/OTCA at (401) 222-6822 if you have questions about Contingency Plan requirements.

xvi. ***Has this plan been submitted to local emergency response providers?*** See k. above.

xvii. ***Does your facility have an employee training program that teaches them proper hazardous waste management procedures, including how to implement the contingency plan, and***

xviii. ***Does your facility have records indicating that an employee training program is occurring?*** Personnel dealing with hazardous waste at the facility of a generator engaging in 90-day accumulation must successfully complete a program of classroom instruction or on-the-job training that teaches them hazardous waste management procedures, including implementation of the contingency plan, that are relevant to the positions in which they are employed. The program must be directed by a person already trained in hazardous waste management procedures, and must include instruction that teaches the following to employees that deal with hazardous waste:

- Knowledge of what a hazardous waste is;
- Knowledge of which wastes at your facility are hazardous;
- Management procedures which include all applicable types of hazardous waste storage and accumulation;
- Labeling;
- Accumulation start dates;
- Storage area inspections;
- Manifesting;
- Preparedness and prevention, and;
- Contingency plan implementation.

The training program must also be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including:

- Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment;
- Communications or alarm, systems;
- Response to fires or explosions;
- Response to groundwater contamination incidents;
- Operation of any waste feed cut-off systems, and;
- Shutdown of operations.

Facility personnel must successfully complete the program within six (6) months of the date of their employment or assignment to the facility, or to a new position at the facility, whichever is later. Employees must not work in unsupervised positions until they have completed the training requirements. In addition, facility personnel must take part in an annual review of the initial training.

With regard to this training, the waste Generator must maintain the following documents and records at the facility:

- The job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job;
- A written job description for each position;
- A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position;
- Records that document that the training or job experience required has been given to, and completed by, facility personnel.

Training records on current personnel must be kept until closure of the facility. Training records on former employees must be kept for at least three (3) years from the date the employee last worked at the facility. Personnel training records may accompany personnel transferred within the same company.

xix. *List the type(s) of hazardous waste generated at your facility*

You should list all of the hazardous wastes that are generated at your facility.

More information on Hazardous Waste Management can be obtained from the **Hazardous Waste Compliance Workbook for Hazardous Waste Generators**. It is currently being updated, it can be requested to be provided to you when available by calling RIDEM/OTCA at (401) 222-6822, Ext. 4412. Also, it will be posted on RIDEM's website at http://www.dem.ri.gov/programs/benviron/assist/index.htm when the update is completed.

Section 3.L – Other Fluid Management

This section is intended to cover any fluids not covered in earlier sections.

Storage and Inspection

i. *Do you store all new liquids indoors?*

ii. *Do you store all new liquids outdoors under a roof?*

iii. *Do you store all liquid wastes in leak-proof containers?*

iv. *Do you store the waste containers indoors?*

v. *Do you store the waste containers outdoors under a roof?*

vi. *Do you inspect the containers and storage areas often for leaks and spills?*

It is good management practice to store all liquids and wastes either indoors or at least under a roof, to avoid contact with precipitation. Any leaks would be better controlled and managed if the containers are in good condition and not potentially exposed to the outside environment. You should frequently check all fluid containers to make sure that there are no leaks or spills.

vii. ***Are all containers clearly labeled with the proper information identifying the contents?*** Whether the containers containing liquids are new chemicals, solid waste or hazardous waste, there should be clearly-marked labels that identify the contents. It is important to avoid mixing of incompatible chemicals and the use of the wrong chemical or solution in a particular operation. In the case of hazardous waste, regulations require specific labeling.

viii. ***If any vehicles are crushed on site, is any resulting residual liquid waste properly managed?*** Though all fluids have been drained prior to crushing, there may still be some fluids that drain out from the crushed vehicle. Most crushers are equipped with catch basins to capture residual fluids. You should make sure that the fluid does not drip onto the ground and is properly contained. The captured fluid may or may not be hazardous, so you need to characterize the waste and manage it accordingly. If an outside

contractor crushes your vehicles and takes away the recovered fluid, the facility is still the Generator of the fluid and is responsible for proper recycling or disposal. This should be addressed in the contract agreement with the outside contractor.

ix. ***Is all windshield washer fluid re-used, recycled, or otherwise managed for proper off-site disposal?*** It is good management practice to recover unused windshield washer fluid from old vehicles. This washer fluid can be re-used on-site or sent off-site for disposal. If not removed, the fluid can leak out of the vehicle when it is crushed and most likely come into contact with oil-laden parts, contributing to the residual waste mentioned in (viii) above.

x. ***Is brake fluid disposed of properly?*** Brake fluid is typically managed and disposed of as a hazardous waste.

xi. ***Excluding used oil or fuel, do you store any chemicals or fluids in tanks*:** If you store any fluids other than used oil or fuel in underground or above-ground tanks, you may need to contact RIDEM/OTCA to determine if any additional regulations or permits apply.

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Section 4.0 – Worker Health & Safety Information

As noted earlier in this workbook, this program does not cover certification of the Occupational Safety & Health Administration (OSHA) worker health and safety requirements. Helpful information to assist in complying with OSHA requirements can be found on the OSHA website at http://www.osha.gov.

Non-regulatory OSHA Compliance Assistance can be obtained from the Rhode Island Department of Health's OSHA Consultation Program. The program offers on-site and off-site health and safety technical assistance at no cost, and can be reached by calling RIDOH at (401) 222-2438. Information provided such as business/owner name, and detailed work practices, will be kept confidential.

The requirements of the Occupational Safety & Health Act do not apply to self employed persons, or sole proprietors with no employees. But in any case, these persons are still encouraged to review good health and safety practices promoted in the OSHA requirements.

More information on this topic can also be obtained from federal OSHA at (401) 528-4669, or the Rhode Island Committee on Occupational Safety & Health (RICOSH) at (401) 751-2015.

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APPENDICIES

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Appendix A

RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF COMPLIANCE AND INSPECTION

HAZARDOUS WASTE
CONTINGENCY PLAN GUIDANCE (Guidance Only)

Rule 5.02 *(Storage)* of the Rhode Island Rules and Regulations for Hazardous Waste Management requires that all hazardous waste generators prepare a formal written plan outlining specific steps that company personnel will take in response to spills, fires, and explosions or any unplanned release involving hazardous wastes or hazardous waste constituents which could threaten human health or the environment. This rule references 40 CFR 265 Subparts C and D of the Code of Federal Regulations. This guidance was developed by the Department to assist companies in developing a good, thorough, and easy-to-read plan for use during an emergency involving hazardous waste. Although contingency plans are site-specific and can be of various levels of detail, this information may be useful as a general guide. Please note that the contingency plan guidance is not necessarily all-inclusive, and that the Department requires that the preparer address all of the items in 40 CFR Subparts C and D.

Please contact the Office of Compliance & Inspection at (401) 222-1360 if you have specific questions regarding this guide or any other questions related to hazardous waste management.

INDEX/CONTENTS OF PLAN

1 Emergency Coordinators
2. Emergency Procedures
3. Emergency Equipment
4. Evacuation Routes
5. Facility Site Diagram
6. Arrangements with Local Authorities

EMERGENCY COORDINATORS

The emergency coordinators listed in this section are authorized to act as on-scene coordinators and to commit the necessary resources during an emergency. At all times, there is at least one coordinator (primary or alternate) either on the company premises or on-call. The coordinators must be familiar with all aspects of the contingency plan, all operations and activities at the company, the locations and characteristics of wastes handled, the location of all company records, and the physical layout of the company. The emergency coordinator will take all reasonable measures to ensure that fires, explosions, and/or releases do not occur, recur, or spread to other areas in the company. These measures shall include, where applicable, stopping processes and operations, collecting and containing released waste, and removing or isolating containers.

The coordinators are as follows:

Primary Coordinator:

Name: _____

Address: _____

Phone number (work/home): _____

Alternate Coordinator:

Name: _____

Address: _____

Phone number (work/home): _____

Note: Qualifications of the emergency coordinators should be included in a separate enclosure.

EMERGENCY PROCEDURES

During an emergency, the emergency coordinator shall perform the necessary actions to insure a timely and appropriate response. The coordinator shall choose the order and applicability of the following actions, based upon the situation and the hazardous waste or hazardous waste constituents involved:

1. Identify and assess the situation (source, health, and environmental impact),

2. Activate alarm to notify all company personnel,

3. Evacuate the facility, if necessary,

4. Determine action to be taken (e.g. containment, absorption),

5. Oversee the cleanup throughout its entirety.

6. Within 15 days after the incident, emergency coordinator must submit written report on the incident to the RIDEM and the EPA Regional Administrator.

Note: Emergency procedures should be a step-by-step, site-specific plan that would be implemented in the event of an emergency. A detailed description of actions to be taken by company personnel during an emergency should be included.

EMERGENCY EQUIPMENT

The following equipment should be found in good condition at the company. Include the physical description and capabilities of each item:

EQUIPMENT PHYSICAL DESCRIPTION AND CAPABILITIES

Alarm system

Communication Systems

Fire Extinguishers

Sprinkler Systems

Spill Control

Personnel Protection

Other

Note: Location of emergency equipment should be indicated on site diagrams.

EVACUATION ROUTES

In the event an emergency arises involving hazardous waste where an evacuation of company personnel becomes necessary, the following evacuation plan would be implemented. Include a description of the signal that would be given to begin evacuation and both primary and secondary evacuation routes personnel would utilize.

Note: Indicate evacuation routes on facility site plan.

FACILITY SITE DIAGRAM

Note: Indicate location of emergency equipment, hazardous waste storage area(s), and both primary and secondary evacuation routes.

ARRANGEMENTS

The following local authorities have been sent copies of the contingency plan:

Police _____

Fire _____

Hospital _____

Response Contractor _____

Other _____

Note: Identify the primary emergency authority where more than one police or fire department may respond. Describe arrangements agreed to and provide documentation of local authority notifications.

I have read and understand the Contingency Plan and Emergency Procedures.

Employee's Name (Print)	Signature	Date

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Appendix B

List of Manifest Printers on next page

Hazardous Materials and Waste Management Division

State Manifest Requirements Important Message for Manifest Users

US EPA revised the Hazardous Waste Manifest Forms used to track hazardous waste from a generator's site to the site of its disposition. Handlers of waste will obtain new forms from any source that has registered with US EPA to print and distribute the form. Please note that previous forms were used until September 4, 2006, and the new Uniform Hazardous Waste Manifest must be used starting on September 5, 2006. This page explains Rhode Island's manifest requirements.

How do I submit manifest copies to my State?

Although the new Uniform Hazardous Waste Manifest will have six pages rather than the previous eight, if the waste is generated by or deposited at a facility within the state of Rhode Island, the generator will be required to photocopy the manifest and send it to the Rhode Island DEM at the following address:

RI DEM, Office of Waste Management
235 Promenade Street
Providence, Rhode Island 02908

What makes Rhode Island Special?

The new Federal Manifest will be consistent nationally allowing for more straightforward usage. But, there are a few differences that you as a Rhode Island user should be made aware:

1. There is room for six waste codes. Federal waste codes should be used first and the remaining space for state codes.
2. State codes R001-R005 and R010 are to be used if Federal codes do not apply.
3. The state codes will work on the new Uniform Hazardous Waste Manifest in exactly the same way as they functioned on the previous manifest. State codes R011-R016 are to be used for Fee Exempt waste and should be used in addition to federal waste codes.
4. In the event that the waste carries more than six waste codes, the generator should select the most appropriate codes for use.
5. The transporters, in their quarterly reports, should include **all** appropriate waste codes, as opposed to just six.

Section 14 is available for additional information. This section is meant for special handling requirements or additional information if space in not available in a box. If possible, Rhode Island specific waste codes should be entered in Box #13.

How can I obtain blank manifest forms to ship hazardous waste?

The Table of Approved Registrants provides information on organizations approved by the EPA Manifest Registry to print the RCRA hazardous waste manifest. The table provides information on how to contact organizations to obtain forms. Expect to spend between $0.21 and $1.00 per form, depending on the quantity and the type of form you order, e.g., snap-outs or continuous.

Table of Approved Registrants

No.	Registrant Name	Are Manifests for Sale?	To Purchase Manifests, Please Contact:	Approved Manifest Tracking Number (MTN) Suffix	Approval Date
002	J.J. Keller & Associates, Inc.	Yes	1-877-564-2333 www.jjkeller.com/manifest	JJK	05/16/06
005	The Flesh Company	Yes, through distributors. Call for contact information.	1-800-745-7910	FLE	05/18/06
003	Welsh & Associates	Yes	317-894-8100 www.welsh-associates.com	WAS	05/25/06
009	Giant Resource Recovery	No		GRR	05/26/06
007	Genoa Business Forms	Yes	815-981-8126 www.form8700-22.com	GBF	06/16/06
004	The Allied Group	Yes	1-800-556-6310 x3227	TAG	08/01/06
020	Veolia ES Technical Solutions	No		VES	08/02/06
010	Nutmeg Environmental	Yes	203-915-3769 www.nutmegenv.com	CTN	08/02/06
016	Corporate Express	Yes	1-888-251-5434	CEX	09/06/06
018	United Industrial Services	No		UIS	09/13/06
029	Safety-Kleen Systems, Inc.	No		SKS	10/20/06

Appendix C

MERCURY SWITCH REMOVAL INFORMATION

C-1 Vehicles Containing Mercury Convenience Light Switches
C-2 Vehicles Containing Mercury ABS G-Force Sensors
C-3 Removing & Recycling Mercury Switches
C-4 ABS G-Force Sensor Removal Procedure

Information: From "End of Life Vehicle Solutions" (ELVS)
http://www.elvsolutions.org/

Appendix C-1

Vehicles Containing Mercury Convenience Light Switches

(Participating Members of the End of Life Vehicle Solutions Only)

Mercury light switches are common in U.S. made passenger cars and pickups. As a general rule, you should assume there is a mercury switch in the hood or trunk convenience lights on:

- Model year 2002 or older GM vehicles
- Model year 2001 or older Ford vehicles
- Model year 1998 or older Chrysler vehicles and

Mercury switch information for specific brands and model years for the participating members of the End of Life Vehicle Solutions are as follows:

DAIMLERCHRYSLER CORPORATION (Chrysler, Dodge, Eagle, Jeep, Plymouth)

- Assume that all vehicles equipped with convenience light assemblies from 1998 and older model year Chrysler Group (Chrysler) vehicles are mercury switches.

FORD MOTOR COMPANY (Ford, Lincoln, Mercury, Mazda, Merkur, Volvo)

- Cars (potentially contain both hood and trunk switches)
  2000 Model Year and prior Ford Mustang, Ford Crown Victoria, Mercury Grand
- Marquis, Lincoln Town Car
  1996 Model Year and prior Ford, Lincoln, Mercury and Merkur cars (except those listed above)
- Trucks, SUVs, and Vans (hood switches)
  2001 Model Year and prior Ford, Lincoln, and Mercury Trucks, SUVs, and Vans except: 1999 Model Year and newer Ford Econoline, Ford Windstar, Ford Ranger; Mercury Villager
- 1991 Model Year and prior Volvos (may contain glass switches-please handle with care)

GENERAL MOTORS CORPORATION (Buick, Cadillac, Chevrolet, GMC, Oldsmobile, Pontiac, Saturn, Saab)

1998 Model Year and earlier – check all vehicles

1999 Model Year – check all vehicles except for the following:

- Chevrolet Astro
- Chevrolet Silverado
- GMC Safari
- GMC Sierra

2000 Model Year – only the following vehicles:

- Cadillac Escalade – under hood light
- Chevrolet Blazer – under hood light
- Chevrolet Cavalier – trunk light
- Chevrolet Corvette – under hood light
- Chevrolet Express – under hood light
- GMC Denali – under hood light
- GMC Envoy – under hood light
- GMC Jimmy – under hood light
- GMC Savana – under hood light
- Oldsmobile Bravada – under hood light
- Pontiac Sunfire – trunk light

2001 Model Year – only the following vehicles:

- Chevrolet Blazer – under hood light
- Chevrolet Cavalier – trunk light
- Chevrolet Express – under hood light
- GMC Envoy – under hood light
- GMC Jimmy – under hood light
- GMC Savana – under hood light
- Luxury G-Van – under hood light
- Oldsmobile Bravada – under hood light
- Pontiac Sunfire – trunk light

2002 Model Year – only the following vehicles:

- Chevrolet Blazer – under hood light
- Chevrolet Express – under hood light
- Chevrolet S-10 Crew cab – under hood light
- GMC Savana – under hood light
- GMC Sonoma Crew cab – under hood light
- Luxury G-Van – under hood light

2003 Model Year and beyond ***DO NOT*** contain mercury light switches.

VOLKSWAGEN (Audi)

- 1977-1988 Audi 100, 1980-1988 Audi 200

THE FOLLOWING ELVS MEMBER MANUFACTURERS DO NOT HAVE MERCURY CONTAINING CONVENIENCE LIGHT SWITCHES:

BMW, MITSUBISHI, NISSAN, SUBARU

Appendix C-2

Vehicles Containing Mercury ABS G-Force Sensors

(Participating Members of the End of Life Vehicle Solutions Only)

AUDI

- 1987-1993 Audi 80/90
- 1987-1993 Audi 100/Avant,
- 1989-1995 Audi V8 ,
- 1987-1991 Audi 200,
- 1987-1992 Audi Coupe Quattro

BMW (no removal procedures)

DAIMLERCHRYSLER

- 1992-96 4WD Dodge Stealth,
- 1992-2001 Jeep Cherokee,
- 1993-2001 Jeep Grand Cherokee,
- 1992-2003 Jeep Wrangler

FORD/MAZDA/MERCURY

- 1993-97 Ford Bronco,
- 1993-2002 Ford Explorer & Mazda Navajo,
- 1995-2001 4x4 Ford Ranger & Mazda B-Series Pick-Up,
- 1997-2002 AWD Mercury Mountaineer

GENERAL MOTORS
(has no models with Hg ABS G-sensors)

MITSUBISHI

- 1990 Galant 4WD,
- 1991 3000 GT 4WD, Expo 4WD/Expo LVR 4WD, Eclipse 4WD, Galant 4WD,
- 1992 3000GT 4WD, Expo 4WD/Expo LVR 4WD, Eclipse 4WD, Galant 4WD,
- 1993 3000 GT 4WD, Expo4WD/Expo LVR 4WD, Eclipse 4WD
- 1994 3000 GT 4WD,

NISSAN

- 1996 Pathfinder 4X4

SUBARU

- 1990-1995 Subaru Legacy with 5MT AWD,
- 1993-1996 Subaru Impreza with 5MT AWD

VOLKSWAGEN
(has no models with Hg ABS G-sensors)

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Appendix C-3

Removing Mercury Switches

Removing hood and trunk convenience lights:

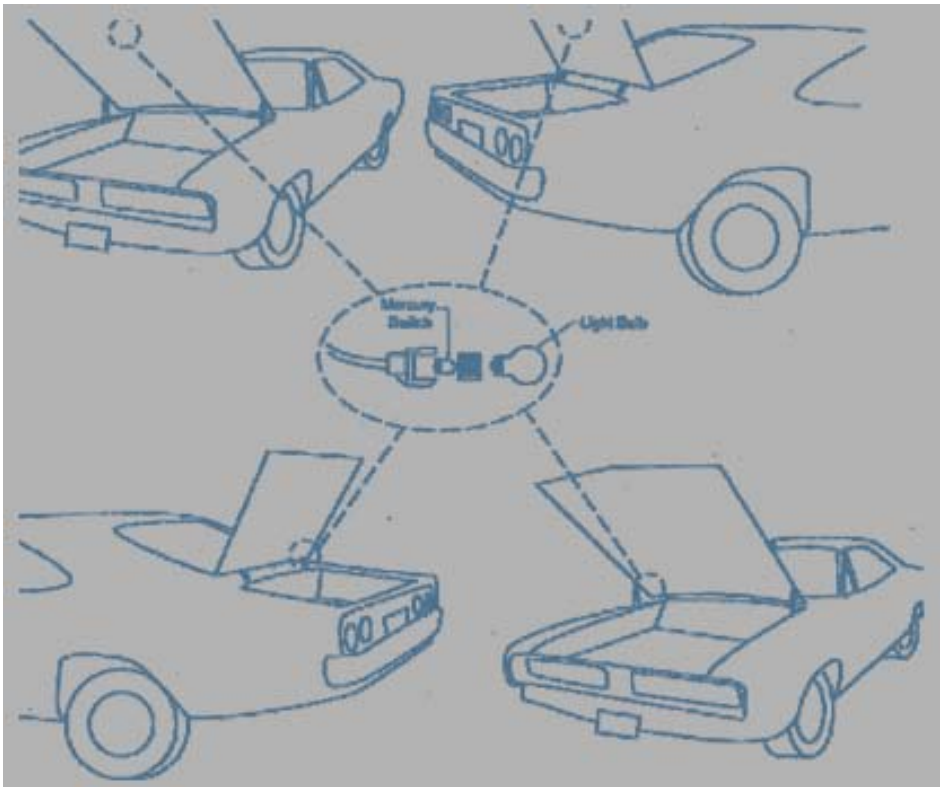
In some instances (such as many GM vehicles), leaving the assembly intact and removing the pellet may be easier than removing the assembly.

1. Check for hood and convenience light switches on these cars and trucks.
    - GM, 2002 and older.
    - Ford, 2001 and older.
    - Chrysler, 1998 and older.
    - Volvo, 1991 and older.
    - 1977-1988 Audi 100 and 1980-1988 Audi 200
    - Mazda, 1993-1997 Navajo and 1995-1999 B-Series pickup
    - Mitsubishi, 1993 Eclipse 4WD

2. Disconnect the battery.

3. Find the small lighting fixture on the underside of the hood or trunk.

4. Cut the power supply wire to the fixture.



5. Remove any fasteners to separate light from vehicle.

Recycling Mercury Switches

Collecting and managing mercury-containing assemblies and pellets:

1. Determine if the vehicle should be checked for a switch assembly. If unsure, check the list of likely vehicle years, makes and models provided.

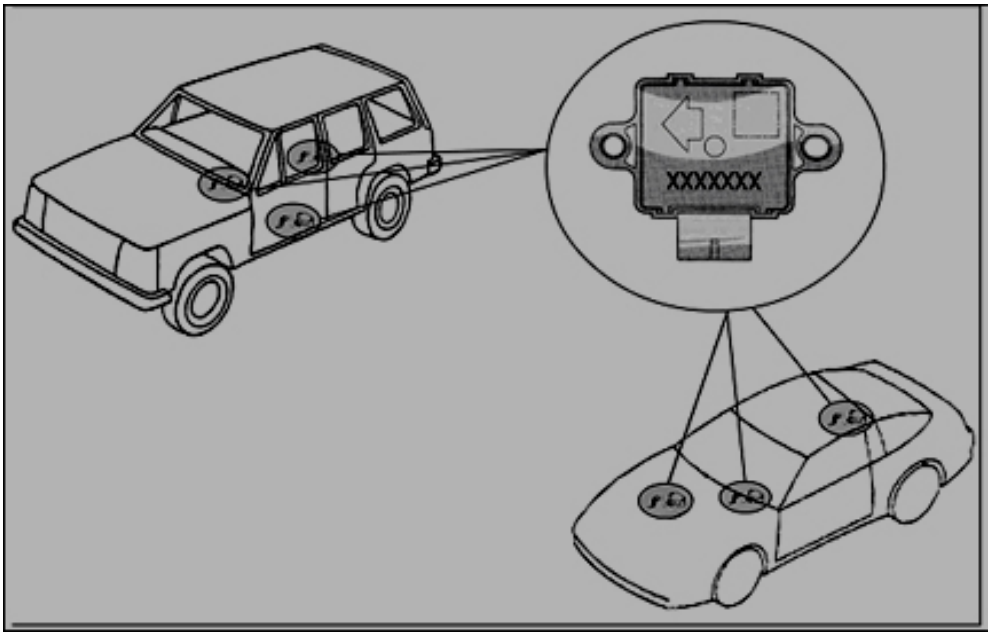
2. If yes, see removal instructions above panel.

3. Remove the entire assembly. If the state requires pellet removal, then remove the metal pellet from the assembly if possible.

4. Place the assembly and/or pellets in the plastic bucket. Properly labeled containers with air-tight lids will be provided.

5. Replace the lid after each pellet or assembly is added.

Appendix C-4
ABS G-Force Sensor Removal Procedure



Description:

The ABS G-Force Sensor contains either two or three mercury switch capsules embedded in the assembly.

General Procedure for removing ABS G-Force Sensor:

1. Confirm vehicle is equipped with ABS.
2. Disconnect the battery.
3. Locate the ABS G-Force sensor on the vehicle (varies on different vehicles).
4. Remove the sensor. Please note do not attempt to remove pellets from mercury ABS G Force sensors. Place the entire assembly in the bucket.
5. Collect and recycle the sensor with care.

The locations where the ABS G-Force Sensor is commonly found are on the drive tunnel, below the rear seat on the floor pan, on the right front wheel apron, rear seat center, and on the left frame rail, right below the driver.

AUDI

Removal Procedure for 1987-1993 Audi 80/90, 1987-1993 Audi 100/Avant, 1989-1995 Audi V8, 1987-1991 Audi 200, 1987-1992 Audi Coupe Quattro

1. Remove rear seat bottom and locate ABS Sensor mounted in the middle under seat on seat support.
2. Disconnect wire harness connector from switch mounting hardware,
3. Remove securing nuts

BMW (no removal procedures)

DAIMLERCHRYSLER

Removal Procedure for 1992-96 4WD Dodge Stealth:

1. Locate the ABS G-Force Sensor under the center floor console.
2. Remove center floor console.
3. Disconnect the harness connector.
4. Remove the two bolts to release the sensor.

Removal Procedure for 1992-2001 Jeep Cherokee:

1. Fold the rear seat assembly forward for access to the sensor.
2. Locate the ABS G-Force Sensor.
3. Disconnect the harness connector.
4. Remove the two bolts to release the sensor.

Removal Procedure for 1993-2001 Jeep Grand Cherokee:

1. Fold the rear seat assembly forward and roll back the carpeting to gain access to the sensor.
2. Locate the ABS G-Force Sensor.
3. Disconnect the harness connector.
4. Remove the two bolts to release the sensor.

Removal Procedure for 1992-2003 Jeep Wrangler:

1. From the driver's side, lift carpet back in front of console/shifter.
2. Locate the ABS G-Force Sensor in front of the console/shifter mounted to a bracket on the floor pan.
3. Disconnect the harness connector.
4. Remove the two bolts to release the sensor.

FORD/ MAZDA/ MERCURY

Removal Procedure for 1993-97 Ford Bronco/1993-2002 Ford Explorer & Mazda Navajo/1995-2001 4x4 Ford Ranger & Mazda B-Series Pick-Up/1997-2002 AWD Mercury Mountaineer:

1. Raise and support the vehicle.
2. Locate the ABS G-Force Sensor on the left frame rail, right below the driver.
3. Remove the two nuts.
4. Unclip the fuel filter from the vehicle frame (on some models).
5. Disconnect the harness connector.
6. Remove ABS G-Force Sensor.

GENERAL MOTORS (has no models with Hg ABS G-sensors)

MITSUBISHI

Removal Procedure for 1990 Galant 4WD; 1991 3000GT 4WD, Expo 4WD/Expo LVR 4WD, Eclipse 4WD, Galant 4WD; 1992 3000GT 4WD, Expo 4WD/Expo LVR 4WD, Eclipse 4WD, Galant 4WD; 1993 3000 GT 4WD, Expo4WD/Expo LVR 4WD,Eclipse 4WD, 1994 3000 GT 4WD

1995 Model Year and beyond DO NOT contain mercury ABS switch assemblies

1. Locate the ABS G-Force Sensor under the center floor console.
2. Remove center floor console.
3. Disconnect the harness connector.
4. Remove the two bolts to release the sensor.

NISSAN

Removal Procedure 1996 Nissan Pathfinder 4X4:

1. Locate the ABS G-Force Sensor under the center floor console.
2. Remove center floor console.
3. Disconnect the harness connector.
4. Remove the two bolts to release the sensor.

SUBARU

Removal Procedure for 1990-1995 Subaru Legacy with 5MT AWD, 1993-1996 Subaru Impreza with 5MT AWD:

1. Locate the ABS G-sensor switch on the right front wheel apron.
2. Disconnect the wire harness connector from the switch and mounting hardware (two screws).

VOLKSWAGEN (has no models with Hg ABS G-sensors)

Used Oil Management Regulations
Rule 15.00 of the Rules & Regulations for Hazardous Waste Management
Generator Standards (as revised 3/4/07)

This Rule, effective March 4, 2007, is intended to provide businesses that generate used (or waste) oil an alternative method for managing their used oil that is less restrictive than managing it as a conventional hazardous waste. Some of the key differences of Generator standards between a Generator of Used Oil only, and a Hazardous Waste Generator, are outlined below:

Used Oil Generator (only)

- Not required to register w/DEM
- May store up to twenty-four 55 gallon drums without a time limit (1,320 gal.)
- Must ship excess drums (>10) offsite within 180 days of accumulation
- Not required to provide hazardous waste management training to employees
- Not required to develop a hazardous waste contingency plan
- Allowed to burn specification and off-specification used oil on-site as an alternative fuel in burners with less than 500,000 BTU capacity, or to send off-site for burning as an alternative fuel
- Allowed to self-transport up to 55 gallons of used oil per shipment to a used oil burning or processing facility
- Not required to ship used oil on a hazardous waste manifest

Hazardous Waste Generator

- Required to register w/DEM
- May store one 55 gallon drum (per waste stream)
- Must ship excess drums (>1) off-site within 90 days of accumulation
- Required to provide hazardous waste management training to all employees that handle HW
- Required to develop and maintain a hazardous waste contingency plan
- Not allowed to burn hazardous waste on-site
- Not allowed to self-transport
- Required to ship hazardous waste using a hazardous waste manifest

This information provided above is only a summary of some of the major key differences between the old regulatory system for used oil management, and the new system. It is not intended as an all-inclusive summary to outline all of the requirements. The regulation should be viewed in its entirety for complete regulatory requirements.
http://www.dem.ri.gov/pubs/regs/regs/waste/hwregs07.pdf

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Appendix E

RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES

STORMWATER MANAGEMENT PLAN GUIDANCE

Instructions for Using the
Model Stormwater Pollution Prevention Plan (SWPPP)
for Auto Salvage Yard operations

This model Storm Water Pollution Prevention Plan will assist you in complying with requirements of the Stormwater Multi-Sector General Permit. You will need to customize this plan to fit your facility.

- The instruction part of the model plan describes the required elements.
- The examples are suggested responses to the instructions.
- In some cases there may be a choice of two or more options. An "OR" separates the options. Keep the option that is appropriate for your facility or add an option that is appropriate for your facility.
- In many sections, the instructions ask for a list or to complete a table. In each case, some options common to auto salvage yard operations have been included. Adjust each list as necessary to suit your facility.
- You may need to renumber the pages in the Plan.
- You may need to renumber the attachments.
- The site map in Attachment 1 is "read only" – you can't make changes to the map.
- If you are working from an electronic (computer) file, you can delete all the instructions when your version of the plan is complete.
- If you are using a hard copy, fill in all the blanks and check all the boxes in the lists/tables that are appropriate to your facility. And check the options that are appropriate to your facility.
- **Once your Stormwater Pollution Prevention Plan is complete, keep it available at your facility. Use the plan to assist you in completing the training, inspections and monitoring required by the General Permit. Keep the Plan up to date.**

Questions? Contact:

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Rhode Island DEM
Office of Water Resources
Providence, RI 02908
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E-mail: margarita.chatterton@dem.ri.gov

SEVEN PHASES FOR DEVELOPING AND IMPLEMENTING INDUSTRIAL STORMWATER POLLUTION PREVENTION PLANS

PLANNING AND ORGANIZATION

- Form Pollution Prevention Team
- Review other plans

↓

ASSESSMENT PHASE

- Develop a site map
- Inventory and describe exposed materials
- List significant spills and leaks
- Test for non-stormwater discharges
- Evaluate monitoring data
- Summarize pollutant sources and risks

↓

BMP IDENTIFICATION PHASE

- Baseline BMPs
- Select activity and site-specific BMPs

↓

IMPLEMENTATION PHASE

- Implement BMPs
- Train employees

↓

EVALUATION/MONITORING

- Conduct annual site inspection/BMP evaluation
- Conduct recordkeeping and reporting
- Review and revise plan

↓

GENERAL REQUIREMENTS

- Develop schedule
- Obtain required signatures
- Follow plan location and public access requirements
- Modify plan as needed

↓

SPECIAL REQUIREMENTS

- Plan for discharges through MS4s

Stormwater Pollution Prevention Plan
Auto Salvage Operations

Facility Name: _____

Facility Address: _____

_____

1. STORMWATER POLLUTION PREVENTION PLAN (SWPPP) OVERVIEW

This Stormwater Pollution Prevention Plan:

- identifies the SWPPP coordinator with a description of the coordinator's duties;
- identifies members of the SWPPP team and lists their responsibilities;
- describes the facility, with information on location and activities, a site map, and a description of the stormwater drainage system;
- identifies potential stormwater contaminants;
- describes stormwater management controls and various structural and non-structural Best Management Practices (BMPs) needed to reduce pollutants in stormwater discharges;
- describes the facility's monitoring plan; and,
- describes the implementation schedule and provisions for amendment of the plan.

2. PLANNING AND ORGANIZATION

2.1. SWPPP Coordinator and Team

Instructions: As part of developing and implementing your facility's pollution prevention plan you should designate an individual or team who will develop, implement and revise the plan. List name, title, phone number and responsibilities of team leader/members. Below are examples of responsibilities. Complete, change, or modify for your facility on the next page.

Example: This is the member roster and list of responsibilities for the pollution prevention team. The team is responsible for implementing the Stormwater Pollution Prevention Plan.

Leader _Donald Davis_____ Office Phone: __465-3490_____

Title: __Owner/Operator_____ Cell Phone or Beeper_____

Responsibilities:

Coordinate all stages of plan development, inspections and implementation; coordinate employee training programs; keep all records and ensure that monitoring and inspection reports are maintained as part of the SWPPP; oversee sampling program. Vehicle prep in "garage" including fluids and refrigerant removal, spill response and vehicle inspections.

Member: __Billy Davis_____ Office Phone: _____

Title: _Co-Owner/Operator_____ Cell Phone/Beeper # _____

Responsibilities:

Implement the preventive maintenance program; oversee good housekeeping activities; serves as spill response coordinator. Conduct/assist with inspections and training program; conduct and document quarterly visual sampling and comprehensive quarterly inspections. Vehicle prep in "garage". Assist in SWPPP implementation.

Member: _ Debbie Davis_____ Office Phone: _465-3490_____

Title: _Co-Owner/Operator_

Responsibilities: Record Keeping Record Keeping; assist in SWPPP development.

2. PLANNING AND ORGANIZATION

2.1. SWPPP Coordinator and Team

Instructions: As part of developing and implementing your facility's pollution prevention plan you should designate an individual or team who will develop, implement and revise the plan. List name, title, phone number and responsibilities of team leader/members. Below are examples of responsibilities. Change or modify for your facility.

Example: This is the member roster and list of responsibilities for the pollution prevention team. The team is responsible for implementing the Stormwater Pollution Prevention Plan.

Leader _____ Office Phone: _____

Title: _____ Cell Phone or Beeper: _____

Responsibilities:

Coordinate all stages of plan development, inspections and implementation; coordinate employee training programs; keep all records and ensure that monitoring and inspection reports are maintained as part of the SWPPP; oversee sampling program. Vehicle prep in "garage" including fluids and refrigerant removal, spill response and vehicle inspections.

Member: _____ Office Phone: _____

Title: _____ Cell Phone/Beeper # _____

Responsibilities:

Implement the preventive maintenance program; oversee good housekeeping activities; serves as spill response coordinator. Conduct/assist with inspections and training program; conduct and document quarterly visual sampling and comprehensive quarterly inspections. Vehicle prep in "garage". Assist in SWPPP implementation.

Member: _____ Office Phone: _____

Title: _____

Responsibilities: Record Keeping Record Keeping; assist in SWPPP development.

ASSESSMENT

3.1. Site Description

Instructions: Show your facility's location on a general location map & include with your SWPPP. Describe activities at your site. Include the following information:
- facility address
- number of acres
- number of buildings & what they are used for
- number and type of vehicles (flatbed truck, forklift, front-end loader, etc.)
- number and location of outfalls (outfalls are point discharges to a surface water, ditch or storm drain)

If the following activities take place at your site, specify in the description:
- removing parts
-draining and storage of fluids (gas, oil, antifreeze, wiper fluids, gear oils, etc.)
-removal and storage of mercury switches
-removal of refrigerants
- parts cleaning
- sand/salt storage
-removal and storage of batteries
-removal of lead tire weights and battery terminals

Example: Davis Auto Salvage is located at 12_____ Road in _____, Rhode Island. The location map (USGS Attachment 1A) and Facility Site Map (Attachment 1) shows the location of the facility and the site layout. The facility covers approximately ten acres, six of which is an active auto salvage operation. There is one 40' X 60' building on the southern end of the property. This is a multi-bay garage with a lift for draining fluids, removing refrigerants and removing parts. Other activities in this building include: storing parts, fluids, batteries, mercury switches, and other materials. A small office is located within this building. Gas is removed from "salvaged" vehicles via a gas buggy, which filters the product so it can be used on site for personal vehicles. Stormwater drainage from this building runs down the driveway and into the Town of_____ ditch (MS4) and eventually into an unnamed stream. A road leads from the garage to a staging area for vehicles waiting to be crushed. This area can store up to 600 vehicles. Vehicles in this area have batteries, mercury switches and all fluids removed. A separate designated area is reserved for vehicles that are not leaking as temporary storage when the influx of vehicles is greater than the "garage" can process for fluid, mercury switch, and battery removal. To provide for drainage on the vehicle storage area the land has been sloped and four outfalls (culverts) have been installed within a berm system. A curtain drain trench was constructed on the upslope side of this area to prevent run-on of stormwater to the vehicle storage area. The outfalls drain to a wetland associated with Martin Stream.

3.2. Site Map

Instructions: Prepare a map of your site including a footprint of all buildings, structures, paved areas, and parking lots. Note impervious areas include gravel roads and parking. This map may be prepared by the facility operator on graph paper with a legend

indicating buildings, scale, roads, parking, spills/leaks, potential pollutant sources, etc. (see Parts IV and VI.M of the RIDEM's Multi-Sector General Permit for a complete list of requirements.) RIDEM's' MSGP also requires that you show the following features on your site map:

- all stormwater outfalls
- drainage area of each stormwater outfall and direction of stormwater flow
- structural stormwater pollution control measures, such as
  - flow diversion structures
  - retention/detention ponds
  - vegetated swales
  - sediment traps
- name of receiving waters (or note discharges to a municipal separate sewer system)
- locations of past spills and chronic leaks
- locations of the following activities where such activities are exposed to precipitation or runoff, including:
  - fueling stations
  - vehicle/equipment washing and maintenance areas
  - area for loading/unloading materials
  - above ground and under ground tanks
  - waste storage and disposal areas, including dumpsters
  - sand/salt piles or storage sheds
  - exposed significant materials
  - other areas (specify)
- location and description of allowable non-stormwater discharges
- location of runoff from adjacent property if it impacts your stormwater
- access roads
- location of material transfer
- location of machinery storage

Example: Attachment 1 is a map of the facility, showing potential sources of pollution.

3.3. Significant Material Inventory

Instructions: Develop an inventory of any materials or activities that are exposed to stormwater. Attachment 2 is a partial list of materials commonly exposed to stormwater. Fill in the ones found at your facility and include any others that you may have. These areas must be identified on the site map.

Incoming Vehicle Inspection: Upon arrival at the site, or as soon as feasible thereafter, vehicles must be inspected for leaks. Fluids from leaking vehicles must be drained immediately if this is not possible leaks must be addressed by using drip pans or some other containment method.

Provide a narrative description of methods and locations of storage and disposal areas, materials management practices, treatment practices and any structural and nonstructural control measures.

- Structural practices are fixed equipment such as berms, trenches, detention ponds, grassed swales etc.

- Nonstructural practices may include regularly scheduled actions such as sweeping, training, spill prevention, and inspections.

Examples of potential pollutants for Auto Salvage operations include:

- Holding areas
- Dismantling areas
- Fluid management area
- Inside parts storage areas
- Outside parts storage areas
- Vehicle storage areas
- Core/scrap piles
- Crushing areas

Example: Materials used by this facility and activities that are exposed to stormwater runoff are listed in Attachment 2.

3.4. Vehicle Wash Water and Wastewater

Instructions: If wastewater from your vehicle or equipment washing operation discharges to a waterway, wetland or municipal storm drain you are required to have a NPDES permit. Attach a copy of your permit. If a permit has not yet been issued, attach a copy of the permit application. If wash water is handled in another manner, describe the disposal method.

Examples: This facility's NDPES permit application for vehicle wash water discharges is attached. See attachment ____. **OR**

The discharge of wash water from vehicles to the storm drain is not allowed. Vehicle washing takes place indoors with wash water discharged to an approved grit separator and holding tank. The holding tank is periodically pumped and transported to a wastewater treatment facility. **OR**

Vehicle washing takes place outdoors in a designated area. Wash water runs off as sheet flow to a vegetated area. No steam cleaning is allowed.

3.5. Spills and Leaks

Instructions: Provide a list of significant spills of oils, toxic or hazardous materials that have occurred in the last 3 years and show on the site map. Also include a list of chronic leaks of oils, toxic or hazardous materials.

It is not required, but is advisable, to use your SWPPP as a means of documenting your response to major and minor spills.

A chronic leak is persistent and without repair can have a significant impact. Chronic leaks from old vehicles and equipment are common. If you do have a spill you must self report the incident to RIDEM within 2 hours.

Examples: Attachment 3 is a list of significant spills or chronic leaks that have occurred at this facility in the past 3 years. **OR**

There have been no significant spills or chronic leaks at this facility in the past 3 years.

3.6. Non-Stormwater Discharges

Instructions: You must certify that all discharges (eg., outfalls) have been tested or evaluated for the presence of non-stormwater discharges. To certify you must:

- identify potential non-stormwater discharges
- describe the method used and results of any test/evaluation for these discharges
- show locations of outfall or drainage points that were checked during the test/evaluation
- provide the date of the test/evaluation
- describe what you plan to do about them

Go to Section 8 in this plan to certify non-stormwater discharges.

3.7. Allowable Non-Stormwater Discharges

Instructions: Certain sources of non-stormwater are allowable, such as fire hydrants, potable water, compressor condensate, irrigation drainage, landscape watering, pavement washing without detergents, exterior building washing without detergents and uncontaminated groundwater. To be allowable, these non-stormwater sources must be identified in your SWPPP. Identify each allowable non-stormwater source and the location where it is likely to be discharged.

Example: All allowable non-stormwater discharges are identified on the site map.

3.8. Site Summary (Sources of pollution with a high risk of contaminating stormwater)

Instructions: This summary is an important piece of the SWPPP and will help you identify the areas, activities and/or materials which pose a high risk of contaminating stormwater. With this information, you can select the most appropriate method to prevent or minimize pollution from these areas. Each area or activity where stormwater pollution is prevented or minimized reduces the size of the SWPPP and the effort needed to implement it. Fluids (gasoline), mercury switch, battery management and parts washing are among the most hazardous materials for auto salvage operations.

The summary must:

- describe activities with a high potential to contaminate stormwater such as vehicle storage, crushing, fluids, mercury switch management as well as battery storage.
- describe any pollutants that may be associated with these activities.

Example: The following areas are potential sources of contamination:

Describe the procedure from bringing a vehicle on site to having vehicles hauled off or crushed on site. This must include the location for removing refrigerants, gas (and all other fluids) batteries and mercury switches from vehicles and where if any crushing operations take place on site.

4. IMPLEMENTATION

This section describes practices that are in place or that will be implemented to control pollutants that have the potential to contaminate stormwater.

4.1. Good Housekeeping

Instructions: Good housekeeping practices are the most effective first step towards preventing pollution in stormwater. Develop a list of good housekeeping practices that have been or will be implemented. The following is a list of good housekeeping practices. Add practices that are appropriate for your facility and delete those that don't apply.

Example: The following is a list of good housekeeping practices followed at this facility:

- Spills are immediately cleaned up with an absorbent material. (See Spill Prevention and Response Procedures in Section 4.7)
- All fluid products and wastes are kept indoors, or in sealed containers.
- Waste oil stored in drums outside are kept closed except when filling, or is used for fuel for a waste oil furnace.
- Used antifreeze is kept in a covered container.
- All changing of fluids is done indoors in the maintenance garage, or on a concrete pad or on a raised stand with a six mil. poly liner to capture drips or spills. Use absorbent pads, kitty litter, or *speedi-dri* to clean up spills and leaks.

The following is a list of good housekeeping practices that will be implemented, along with expected date of implementation, at this facility.

- Within 30 days, liquid and dry material storage will be relocated to an indoor area with proper containment and separation of potentially volatile materials.
- Within 30 days, spigots/funnels will be used to minimize drips/leaks.
- Within 30 days, drip pans will be used when changing fluids.
- Within 60 days, all above ground tanks will have secondary containment.

4.2. Preventive Maintenance

Instructions: Develop a preventive maintenance program that involves inspections and maintenance of stormwater management controls and routine inspections of facility operations to detect faulty equipment. Equipment, such as tanks, containers and drums, should be checked regularly for signs of deterioration. The following is a list of preventive maintenance measures. Add measures that are appropriate for your facility and delete those that don't apply.

Example: The following is a list of preventive maintenance procedures practiced at this facility:

- Inspect all incoming vehicles.
- This facility has a written spill prevention and response policy.
- All staff is aware of spill prevention and response procedures.
- Spill response equipment is located at all potential spill areas.
- All vehicle fluids draining is done inside and waste fluids are kept inside and are properly stored in sealed and labeled containers.
- All batteries are stored inside and are properly disposed of weekly.
- Catch basins and sediment chambers are checked and cleaned as needed.
- Drainage swales are kept clear.

- Settling basins are cleaned out as necessary.
- Other segments of the storm drain system. Please specify: _____
- Underground/above ground storage tank filling areas are inspected regularly for signs of spills.
- Hydraulic equipment is kept in good repair to prevent leaks.
- Outdoor drum and storage tank containment areas are checked for leaks.
- Uncontaminated stormwater in containment areas is kept to a minimum.
- Other testing and maintenance of equipment and systems. Please specify.

The following is a list of preventive maintenance measures that will be implemented and the date by which they will be implemented.

- Within 30 days, begin regular inspections of the fueling area for signs of spills or leaks and proper labeling. Hoses and fittings will also be regularly inspected.
- Within 30 days, begin regular inspections of above ground storage tanks for signs of corrosion or leaks.
- Within 30 days, all materials, waste storage areas, drains, tanks and cans will be properly labeled.

4.3. Best Management Practices (BMPs)

Instructions: List the BMPs that have been/will be implemented (along with date of implementation) to control the discharge of pollutants in stormwater runoff from the areas/activities identified in the Site Summary (Section 3.8)

Example: The following is a list of existing and planned Best Management Practices. When implemented, the BMPs will prevent or reduce the discharge of potential pollutants in stormwater runoff for each area of concern listed in the Site Summary (Section 3.8).

Vehicle loading and unloading areas. To prevent or reduce the potential of stormwater contamination in the loading and unloading areas, the following BMPs will be implemented.

- Loading and unloading are done inside where possible or on a concrete pad when possible.
- Hazardous materials that are in easily ripped or breakable containers (such as bags, plastic pails) are not loaded or unloaded outside when it rains.
- A staff member is present during loading and unloading operations.
- When drums are being handled, the storm sewer is covered to help contain potential spills.
- Within 30 days, an emergency spill kit will be placed in the area where fluids are drained.
- Develop a plan to Within 60 days, a roof will be constructed over the loading area **or** loading/unloading will take place inside.

Outdoor storage

- Diesel fuel tank. This above ground tank has secondary containment capable of holding the entire contents of the tank. There is also a roof over the tank.
- A member of the spill response team is on hand at all times during filling.
- Gasoline tank. A member of the spill response team is on hand at all times during filling.

- Scrap metal. All scrap metal is cleaned of hazardous materials prior to storage on the scrap metal pile. Salvage vehicles have fluids removed prior to "long term" (10 days or more) storage.
- Dumpster lid is closed except when in use.

4.4. Sediment and Erosion Control

Instructions: List below any potential areas for erosion (including sand piles or unpaved areas of the property) and the controls that will be used to prevent erosion (seeding of bare slopes, filling muddy lots with gravel, etc.).

Examples: There are no potential areas for erosion on this site. **OR**

Below is a list of potential erosion areas and measures to prevent erosion.

- Potential source of erosion: Slopes of access road and perimeter of the site.
- Management practice(s) to prevent erosion: Seed unvegetated areas. Stabilize sloped areas.
- Potential source of erosion: Most of the yard is sand and gravel.
- Management practice(s) to prevent erosion: Have rip-rap and sediment trap at stormwater discharge points.

4.5. Management of Stormwater Runoff

Instructions: List below any runoff management practices other than source control used at the facility. Include any from the list below that are appropriate to your facility, delete any which are not and add any others that you may have. Add any necessary descriptions or qualifications to the practices listed (for example, if the practice only affects a portion of your site).

Example: The following management practices for runoff are used at this facility.

- Drainage outfalls discharge to riprap pads.
- Runoff from the site goes to a detention or retention basin.
- Runoff from the site goes to dry wells.
- Impervious areas have no curbs in order to encourage sheet flow runoff to vegetative areas.
- Biofilter/bioremediation is used to treat runoff.
- Other

4.6. Spill Prevention and Response

Instructions: Attach a copy of any Spill Prevention and Response Procedures you have for tanks, fuel pumps, or hazardous materials. List any procedures that apply to specific locations or materials at your facility.

Example: Loading/unloading area:

- Spill response equipment is kept ___*(where)*___ and includes ___*(what, example speedi-dri, booms, etc.)*___. All personnel are instructed in its location and use.
- The pollution prevention team leader or the spill coordinator will be advised immediately of all spills of hazardous materials or regulated materials, regardless of quantity.
- Spills will be evaluated to determine the necessary response. If there is a health hazard, fire or explosion potential, 911 will be called. If a spill is large or threatens surface waters, including

storm drains, state or federal emergency response agencies will be called

- Spills will be contained as close to the source as possible with a dike of absorbent materials from the emergency spill kit. Additional dikes will be constructed to protect swales or other stormwater conveyances of streams. A cover or dike will protect any other stormwater structures such as catch basins.

4.7. Employee Training

Instructions: A stormwater pollution prevention employee training program must be developed. The training must cover such topics as spill prevention and response, good housekeeping, and materials management practices. Keep the attendance sheet with this plan. Attachment 7 is a sample attendance sheet for the employee training session(s). Stormwater training can be combined with other training such as health, safety or emergency response. You may already conduct training, such as hazardous materials handling or MSDS, that could fulfill parts of this requirement.

Example: The topics below will be covered at employee training sessions. All employees will be trained annually. (Specify the topics here.)

Pollution prevention team members will meet at least twice a year to discuss the effectiveness of and improvements to the Plan.

5. EVALUATION

5.1. Quarterly Visual Monitoring

Instructions: Every quarter you must **visually** examine the stormwater discharges at each outfall at your facility. The visual examination must be made during daylight hours and within 30 minutes after stormwater begins to runoff. Document observed contamination/problems with date and time. Determine the source of contamination and take action to eliminate it. A sample quarterly monitoring log is shown in Attachment 4.

5.2. Quarterly Site Inspections (Comprehensive Site Compliance Evaluation)

Instructions: You must **inspect** your entire facility at least **four times a year.** You must inspect for evidence of pollution, evaluate BMPs that have been implemented, and inspect equipment. The site inspection report must include date of inspection, name of personnel conducting the inspection, observations, assessment of BMP's, corrective actions taken, and a signed certification.

Instructions: You must include this information in a Compliance Evaluation Report. Keep the Report with your SWPPP. Both the Evaluation Report and any reports of follow-up action must be certified. Certification language: "This Compliance Evaluation Report has been prepared by qualified personnel who properly gathered and evaluated information submitted for this Report. The information in this Report, to the best of my knowledge, is accurate and complete." Remember to sign and date the certification.

5.3. Recordkeeping and Reporting

Instructions: Your facility must maintain records of spills, leaks, inspections and maintenance activities for at least one year after the permit expires.

Example: Records described in this SWPPP will be retained on site for at least three (3) years from the date permit coverage expires or is terminated. These records will be made available to state or federal inspectors upon request. Additionally, employee training records shall also be maintained.

5.4. Plan Revisions

Instructions: Changes in a facility's layout or operations require changes in the Stormwater Pollution Prevention Plan. Describe how changes/revisions to the SWPPP will be made.

Example: If this facility expands its operations, or changes any significant material handling or storage practices which could impact stormwater, this SWPPP will be amended. The amended Plan will describe the new activities that contribute to increased pollution and planned control measures.

This Plan will also be amended if a state or federal inspector determines that it is not effective in controlling stormwater pollutants discharged to waterways.

6. CERTIFICATIONS

Instructions: Your certifications must be signed by an "authorized representative," someone who is at or near the top of your facility's management chain who has the authority to sign and certify this type of document. Modify the certifications as needed.
Instructions: This page include certifications for your:

- Non-Stormwater Discharges
- Stormwater Pollution Prevention Plan

Non-Stormwater Discharges

All stormwater outfalls to surface waters at this facility have been evaluated and found to be free of non-stormwater discharges.

OR

With the exception of runoff from our salt storage area, all stormwater outfalls to surface waters at this facility have been evaluated and found to be free of non-stormwater discharges.

Stormwater Pollution Prevention Plan

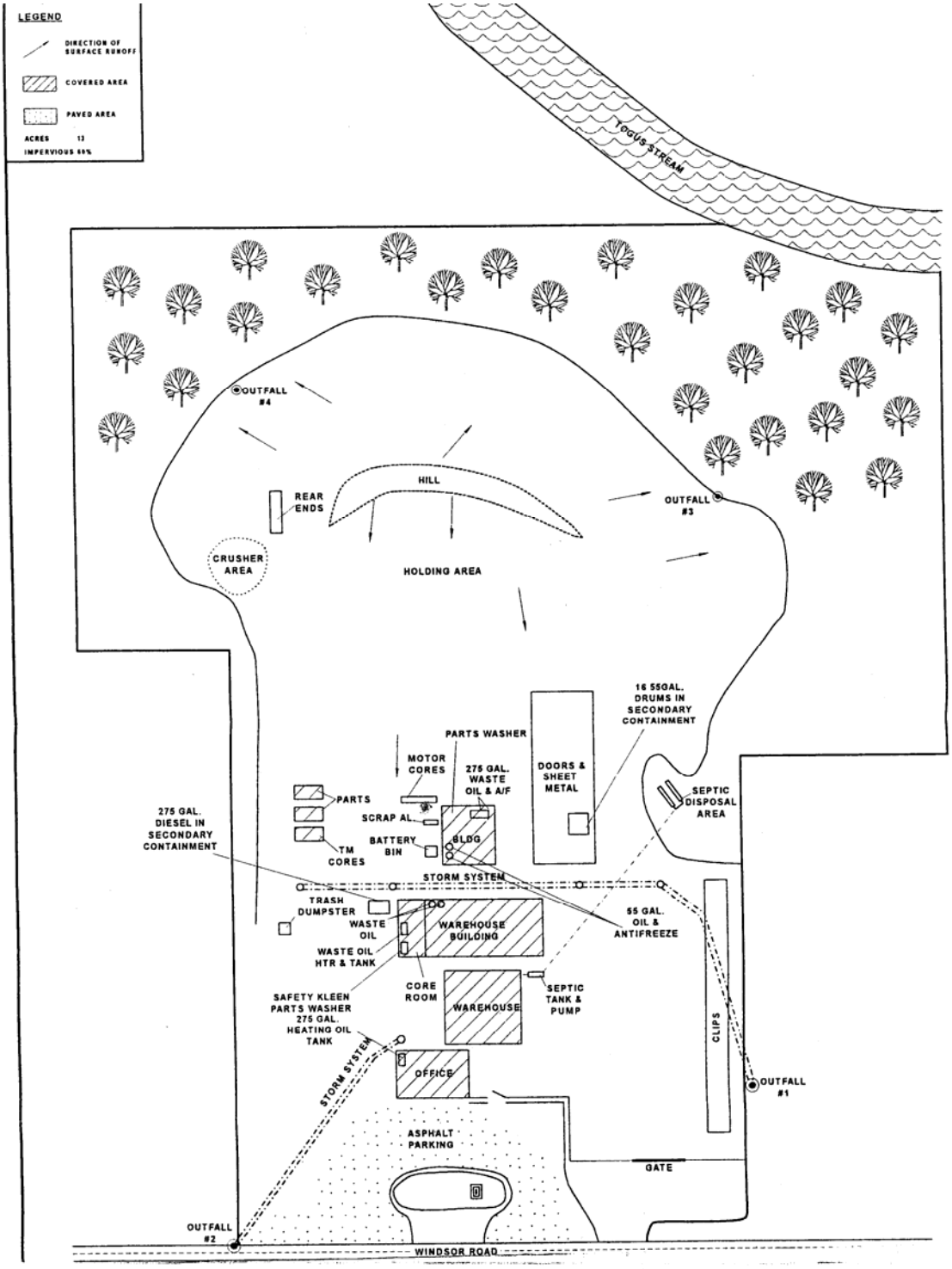
This Stormwater Pollution Prevention Plan has been prepared in accordance with good engineering practices. Qualified personnel properly gathered and evaluated information submitted for this Plan. The information in this Plan, to the best of my knowledge, is accurate and complete.

_____
Name

_____
Title

_____
Date

Attachment 1 - Site Map



Attachment 2
SWPPP Material Inventory

Instructions: Develop an inventory of any materials or activities that are exposed to stormwater. This attachment is a partial list of materials commonly exposed to stormwater. Fill in the ones found at your facility. Include any others that you may have. These areas must be identified on the site map. Make sure you fill in the columns.

Material or Significant Areas of the Facility	**Exposed Materials or Potential Sources**	**Potential Stormwater Pollutants**	**Quantity Exposed** (approx.)	**Likelihood of Contact with Stormwater (Low/Medium/High)**	**Methods used to store/handle/process**	**Risk of Release**
Holding Area(s) Dismantling Area(s)	Vehicles with fluids & batteries Vehicles being dismantled	Oil, Grease, Assorted Fluids, Metals, Total Suspended Solids Oil, Grease, Assorted Fluids, Metals	20 vehicles 1 done inside garage		Newly arrived vehicles are stored with hoods down over native soil Dismantling is performed inside over a concrete pad	High Low
Fluid Management Area(s)	Fluid storage tanks and drums	Used oil, transmission fluid, brake fluid, anti-freeze, gas, diesel and waste oil for furnace	1 - 55 gal. Drum for transmission fluid 250 gal. Gas buggy for gasoline		Used fluids are stored in sealed containers inside the garage All fluids are stored with secondary containment	Medium
Inside Parts Storage Area(s)		Oil, grease, metals	Moderate			Low
Outside Parts Storage Area(s)	Doors, Clips, Sheet Metal	Oil, grease, metals, total suspended solids	Moderate		Parts stored on ground	Low

Attachment 2 - continued
SWPPP Material Inventory

Vehicle Storage Area(s)	Vehicle carcasses	Oil, grease, assorted fluids, metals, total suspended solids	350	Vehicles are staged in rows over native soil		Low - Medium
Parts Washing & Pressure Washing Area(s)		Oil, grease, assorted fluids, metals, total suspended solids	Moderate	Cores are stored inside trailers or buses, scrap is stored in containers or pick-up truck beds		Medium
Core/Scrap Piles	Core motors, Transmissions, Radiators, Scrap Aluminum	Oil, grease, metals, total suspended solids	Moderate	Cores are stored inside trailers in barrels or bins, scrap is stored in various other containers		Medium
Crushing Area(s)	Vehicle Carcasses	Oil, grease, metals, total suspended solids	600 vehicles a year	Crushing is performed by a mobile crusher over native soil		Low - High

Completed by:_____

Title:_____

Date:_____

Attachment 3
List of Significant Spills and Chronic Leaks

Instructions: List significant spills of oils, toxic or hazardous materials that have occurred in the last 3 years. Show these areas on the site map.

Date	Spill	Leak	Source	Description			Response Procedures	Measures Taken to Prevent Recurrence
	(check one)			Type of Material	Quantity	Reason		
4/21/04	X		Front end loader hydraulic hose	hydraulic fluid	2 gallons	blown hose	removed contaminated soil	spill kit kept in vehicle inspect hoses & seals, perform routine maintenance
		X	Flat-bed truck	motor oil	n/a	engine seal	absorbent used to clean up spill	absorbents will be used until engine seal is replaced
			Fork lift	gasoline	1 gallon	Fuel line	Removed contaminated soil	

Completed by:_____

Title:_____

Date:_____

Attachment 4
Sample Quarterly Visual Monitoring Inspection Log for Stormwater Pollution

Instructions: Every quarter you must visually inspect stormwater outfalls at your facility. This attachment is a sample monitoring log.

Date	Time	Outfall Number or Description	Weather Conditions	Observations (contaminants observed/ erosion/sediment runoff	Probable Source of Any Observed Contamination	Action Taken to Prevent in Future
7/05/03	10 am	02 03	rain rain	no stormwater observed no stormwater observed	n/a n/a	n/a n/a
10/15/05	0630	02 02	Rain	Cloudy water sheen	Sediment from holding area Oils from vehicles	Installed veg. buffer Inspected vehicles located leak-used drip pan

Completed by:_____

Title:_____

Date:_____

Attachment 5
Visual Wet Weather Observation

Inches of Rain_____ Time since last measurable rain_____hours or days (72 hr. minimum)

What did you see	Description	Potential Source	Corrective Action
Material floating on the water			
Solids settling to the bottom of container			
Solids suspended in the water			
Oil or grease			
Discoloration of the water			
Turbidity (is it cloudy or clear)			
Foam or suds			
Odor (gas, oil, antifreeze)			
Other conditions			

Completed by:_____

Title:_____

Date:_____

REFRIGERANT RECOVERY LOG

Facility Name

City/Town:_____, Rhode Island

CERTIFIED TECHNICIAN: **RIDEM APPROVED EQUIPMENT:**

VIN Number	Type of Refrigerant R12 or R134a	Date Recovered	Initials	Recycled or Reclaimed	Name of Reclamation Center

Appendix F

RI DEM Office of Water Resources
Rhode Island Wastewater Treatment Facility Information
July 2005

Municipal Treatment Plants

WASTEWATER TREATMENT FACILITY/SUPT.	POPULATION CENSUS 2000	ESTIMATED POPULATION SERVED BY SEWERS	DESIGN FLOW (MGD)	AVERAGE DAILY FLOW (MGD)	MAJOR TREATMENT SYSTEMS
Town of Bristol **Matthew Calderiso** Bristol Sewer Commission 2 Plant Street Bristol, RI 02809 TEL: 253-8877 FAX: 253-2910	22,469	16,900	3.8	2.8	RBC's Chlorination Dechlorination
Town of Burrillville **John E. Martin, III** Burrillville WWTF P.O. Box 71 Harrisville, RI 02830 TEL: 568-9463 FAX: 568-9464	15,796	8,000	1.5	0.7	Activated sludge Chlorination Phosphorous reduction Dechlorination
City of Cranston **(Veolia Water)** **Dan Gorka** Water Pollution Control Facility 140 Pettaconsett Avenue Cranston, RI 02920 TEL: 467-7210 FAX: 781-5260	79,269	77,000	19.0	13.2	Activated sludge Chlorination Dechlorination
Town of East Greenwich **Mike Pacillo** East Greenwich Town Hall P.O. Box 111 East Greenwich, RI 02818 TEL: 886-8619 FAX: 886-8652	12,948	2,500	1.24	0.8	RBC's UV Disinfection
City of East Providence *serves*: East Providence Barrington **Tom White** East Providence WWTF Crest Avenue Riverside, RI 02915 TEL: 433-6363 FAX: 433-4059	 48,688 16,819	47,935 39,000 8,835	10.4	6.7	Activated sludge Chlorination Dechlorination
Town of Jamestown **Douglas Ouellette** Jamestown Sewer Division 44 Southwest Avenue Jamestown, RI 02835 TEL: 423-7295 FAX: 423-7229	5,622	1,720	0.75	0.4	Extended Aeration Chlorination
Narragansett Bay Commission **Bucklin Point (Aquarion Operating Services)** *serves*: Central Falls Cumberland East Providence Lincoln Pawtucket Smithfield **Brent Herring** NBC-Bucklin Point WWTF 102 Campbell Avenue East Providence, RI 02914 TEL: 434-6350 FAX: 438-5229	 18,928 31,840 48,688 20,898 72,958 20,613	119,809 17,637 11,093 8,852 9,433 72,644 150	46.0	23.1	Activated sludge UV Disinfection

Narragansett Bay Commission **Fields Point** *serves*: Johnston North Providence Providence **Carmine Goneconte** NBC-Fields Point 2 Ernest Street Providence, RI 02905 TEL: 461-8848 FAX: 461-0170	 28,195 32,411 173,618	208,743 15,925 32,090 160,728	65.0	45.5	Activated sludge Chlorination Dechlorination
Town of Narragansett **Scarborough Facility** **Doug Nettleton** Narragansett Town Hall 25 Fifth Avenue, P.O. Box 777 Narragansett, RI 02882 TEL: 782-0682 FAX: 782-0681	16,361				Dechlorination
City of Newport (Earth Tech) *serves*: Middletown Newport U.S. Navy Base **Steve Lambalot** Newport WWTF 250 J.T. Connell Highway Newport, RI 02840 TEL: 845-2000 FAX: 845-2014	 17, 334 26,475	38,385 7,435 20,950 10,000	10.7	8.4	Activated sludge Chlorination
New Shoreham **Ray Boucher** New Shoreham Sewer Commission P.O. Box 220 New Shoreham, RI 02807 TEL: 466-3231 FAX: 466-3237	1,010	750-winter 8,500-summer	0.3	0.1	Extended aeration Chlorination Dechlorination
Quonset Point RI Dept. of Economic Development **Dennis Colberg** Quonset Point WWTF 150 Zarbo Avenue North Kingstown, RI 02852 TEL: 294-6342 FAX: 294-7927		6,000	2.35	1.0	RBC's Chlorination
Town of Smithfield (Veolia Water) **Michael Emond** US Filter Operating Services P.O. Box 17249 Smithfield, RI 02917 TEL: 231-1506 FAX: 231-7089	20,613	13,000	3.5	1.4	Activated sludge Chlorination Dechlorination
South Kingstown Regional WWTF *serves*: Narragansett South Kingstown University of RI **Bernard Bishop** South Kingstown Town Hall 180 High Street Wakefield, RI 02879 TEL: 788-9771 FAX: 789-3070	 16,361 27,921	25,396 8,982 9,771 6,643	5.0	2.4	Activated sludge Chlorination Dechlorination
Town of Warren **(Aquarion)** **David Komiega** 427 Water Street Warren, RI 02885 TEL: 245-8326 FAX: 245-8713	11,360	8,000	2.01	1.8	Activated sludge Chlorination Dechlorination
City of Warwick **Joel Burke** Warwick Sewer Authority 300 Service Avenue Warwick, RI 02886 TEL: 739-4949 FAX: 739-1414	85,808	28,000	5.0	3.4	Activated Sludge Chlorination

Town of Westerly (Aquarion) **Scott Duerr** P.O. Box 2924 Westerly, RI 02894 TEL: 596-2847 FAX: 348-9504	22,966	10,000	3.3	2.5	Activated Sludge Chlorination Dechlorination
Town of West Warwick *serves*: Coventry Warwick West Warwick **Michael Roberts** West Warwick Regional WWTF 1 Pontiac Avenue West Warwick, RI 02893 TEL: 822-9228 FAX: 823-3620	 33,668 88,808 29,581	30,000 804 1,282 28,272	7.9	5.2	Activated Sludge UV Disinfection
City of Woonsocket (Veolia Water) *serves*: North Smithfield Woonsocket Blackstone, MA **John Oatley** Woonsocket WWTF 11 Cumberland Hill Road (rear) Woonsocket, RI 02895 TEL: 762-5050 FAX: 762-5143	 10,618 43,224 8,804	52,200 2,700 48,000 1,500	16.0	9.3	Activated Sludge Chlorination Dechlorination
New England Treatment Company/SYNAGRO **Michael Madden** NETCO 15 Cumberland Hill Road Woonsocket, RI 02895 TEL: 765-6764	-	-	-	-	Sludge incineration