

Iowa  
Certified Automotive Recyclers Environmental  
(I-CARE<sup>®</sup>)  
Program

I-CARE



Iowa Certified Automotive Recyclers Environmental Program

***Established environmental excellence from the original recyclers***

January 2011



## *IOWA CERTIFIED AUTOMOTIVE RECYCLERS ENVIRONMENTAL PROGRAM*

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### ***Training Opportunity***

This icon denotes a section of the certification manual that may be used for employee safety training. Some training sessions are required by law while others make good common sense to keep employees aware of potential dangers and to help solicit their help in maintaining a safe work place.



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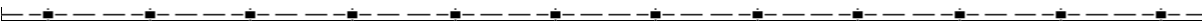


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### *Certification Process*

The Iowa Automotive Recyclers Certification Program was established by the industry to set a standard of excellence for automotive recycling in Iowa. The certification program is sponsored by the Iowa Automotive Recyclers association. All Iowa Automotive Recyclers (IAR) association members will be certified through the Iowa Automotive Recyclers Certification Program.

The certification program has established standards in four categories that participating member yards meet specific to general business practices, environmental compliance and stewardship, occupational health and safety practices and licensing and regulatory requirements. Together these criteria provide a basic framework of expectations by which member salvage yards are guided.

Certification distinguishes member of the Iowa Automotive Recyclers association as professional recyclers adhering to the highest standards of excellence in the industry.

The certification process is an intensive on-site audit and documentation of the practices at individual Iowa salvage yards. Salvage yards must be members in good standing to become certified. Certification is conducted by an independent auditor approved by the IAR Board.

This certification manual is both a guideline to certification and a tool to be used to attain and maintain the level of regulatory compliance in environmental management and health & safety practices befitting a professional recycler.

### *ARA CAR Program*

The Iowa Automotive Recyclers Certification Program has been reconciled with the Automotive Recyclers Association (ARA) Certified Automotive Recycler (CAR) program. Each of the ARA CAR program standards is either included in the IAR program or incorporated into more stringent and specific Iowa standards.

Acceptance by the ARA CAR program of the Iowa Automotive Recyclers Certification Program will allow IAR members to easily become ARA CAR certified without additional auditing or reporting efforts.



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### *Becoming Certified*

All IAR members will be surveyed in the Fall of 2008 to establish baseline data as to the compliance level of the association as a whole. The initial survey is the first step in certification for each member.

Following data collection each yard will receive an audit visit by Sue Schauls. At the intensive on-site audit and regulatory review and through follow-up consultations each member will receive hands-on assistance with addressing any practices that may inhibit certification in the program. Upon completion of the program every participating member will be certified.

At the time of certification each yard will be in compliance with all applicable state and federal regulatory requirements. It is, however, the responsibility of the yard to continue to maintain compliance. The certification process is a tool to reach full compliance however, neither the auditor nor the association can guarantee compliance with all applicable regulations. That burden falls to the owners and operators of each individual facility. This material should not be construed to be legal or professional advice.

### *Recertification*

Annual recertification is required by members. After the third year, self-certification may be conducted every other year, similar to the ARA program.



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*Iowa Automotive Recyclers Certification Program Application*

Owner/Contact Name(s): \_\_\_\_\_  
Business Name: \_\_\_\_\_  
D.B.A. (If applicable): \_\_\_\_\_  
Street Address: \_\_\_\_\_  
City: \_\_\_\_\_  
State/Province: \_\_\_\_\_  
Mailing Address (if different) \_\_\_\_\_  
Zip/Postal Code: \_\_\_\_\_  
Country: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Fax: \_\_\_\_\_  
Website: \_\_\_\_\_  
E-mail: \_\_\_\_\_

Average number of salvaged vehicles processed for parts monthly: \_\_\_\_\_  
Number of dismantling bays at facility: \_\_\_\_\_  
Average number of employees at the facility: \_\_\_\_\_  
Name of safety supervisor: \_\_\_\_\_

Average number of vehicles purchased at salvage pools each month: \_\_\_\_\_

**ARA Criteria: (Local Media Outlet Information)**

Radio Station Name: \_\_\_\_\_ Telephone Number: \_\_\_\_\_  
Local Newspaper Name: \_\_\_\_\_ Fax Number: \_\_\_\_\_ E-mail: \_\_\_\_\_  
Local Television Station Name: \_\_\_\_\_ Telephone Number: \_\_\_\_\_



## *General Business Standards*

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### *General Business Standard 1*

**Provide adequate, well-graded or paved, well-drained customer parking facility separate from the salvage vehicle area.**

The customer parking area should allow safe and easy access for customers, and provide a professional outside appearance.

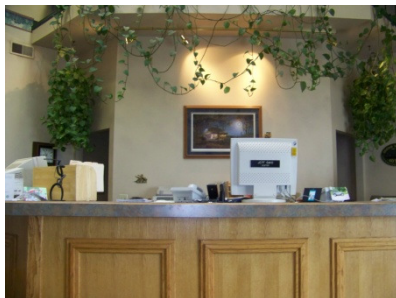
- 1) Provide sufficient number of well-maintained parking spaces for customers during business hours.
- 2) Do not allow customers to [park in holding area for incoming vehicles.

### *General Business Standard 2*

**Maintain a clean and organized retail sales counter and reception area.**

The retail sales counter and reception area is a reflection of the professionalism of the business and the concern for the customer.

- 1) Provide a clean, uncluttered, safe and professional atmosphere for customers.
- 2) Ensure the safety of customers by keeping parts, chemicals and slippery material away from customer reception area.





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### General Business Standard 3

#### Display signs in good taste and of positive tone at the facility.

Good and proper signage can establish the credentials of the business; explain warranties, policies, and sales conditions; instruct employees (such as how to clean up a spill); provide advertising; identify association memberships (such as ARA or CAR); and create an interesting and pleasant environment for both employees and customers.

- 1) Post signage to establish credentials of the business such as sales tax permit and business licenses. Display association membership signs.
- 2) Provide required informational sign for employees as required by state and federal law.
- 3) Post only signs in good repair of good taste and not offensive.



Iowa Workforce Development has compiled workplace appropriate signs available to download. View the list of signs at: <http://www.iowaworks.org/reqposters.htm>. Some signs are required and others are recommended. Every employer covered by the non-discrimination and EEO laws is required to post on its premises the poster, "**Equal Employment Opportunity is the Law.**"

A state of Iowa "9-in-1" poster, which includes all state and federal required labor and employment law notices, is available at no cost to Iowa employers. Copies of the poster can be obtained at any one of the [55 Iowa Workforce Development Centers](http://www.iowaworkforce.org) across the state. [www.iowaworkforce.org](http://www.iowaworkforce.org).

The poster includes all current language except the new GINA Law. To download the required sign, visit the website at:

[http://www.dol.gov/ofccp/regs/compliance/posters/pdf/Supplement\\_English.pdf](http://www.dol.gov/ofccp/regs/compliance/posters/pdf/Supplement_English.pdf) (in English)

[http://www.dol.gov/ofccp/regs/compliance/posters/pdf/Supplement\\_Spanish.pdf](http://www.dol.gov/ofccp/regs/compliance/posters/pdf/Supplement_Spanish.pdf) (in Spanish)

The mandatory **Iowa Smoke Free Air Act poster** is not included in the 9-in-1 regulatory poster as the smoke free poster is designed to be displayed where *customers* can view the information. Sample signs can be obtained at <http://www.iowasmokefreeair.gov/signs.aspx>.





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### *General Business Standard 4*

#### **Building and property is well-maintained to reflect a clean, orderly, and safe operation.**

Buildings, fences, landscaped areas, and parts and vehicle storage areas give customers, visitors, neighbors, and others in the community their first impression of the business. Well-kept structures and the surrounding land are indicative of a reputable, professional, and respectable facility.

- 1) Keep building and fences in good repair and well-maintained.
- 2) Maintain a professional image by mitigating vandalism or dumping as soon as possible.
- 3) Keep vehicle holding areas and parts storage well-organized and professional.

### *General Business Standard 5*

#### **Delivery and support vehicles are well-maintained to ensure employee and community safety.**

Good preventive maintenance reduces safety hazards, the risk of equipment breakdown, and the potential release of equipment fluids. It can also help prevent costly major repairs and extend equipment life. Having clean, well-maintained equipment helps create a positive image of the operation for customers and the community.

- 1) Maintain company vehicles in safe condition through preventive maintenance of engines and other working parts such as cleaning and lubricating frequently.
- 2) Ensure operators are well-trained and conscientious of vehicle capabilities.

### *General Business Standard 6*

#### **Pest control for mosquitoes and rodents is managed through preventive maintenance.**

- 1) Conduct preventive maintenance for pest control to avoid infestations.

### *General Business Standard 7*

#### **No open burning is practiced at the facility as prohibited by Iowa law.**

- 1) Ensure vehicle dismantling does not include open burning of any kind at the facility.
- 2) Remove all non-recyclable debris through periodic landfill disposal or other lawful practices.



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### *General Business Standard (future)*

#### **Maintain compliance with all local planning and zoning ordinances.**

In the future I-CARE certification may require compliance with local planning and zoning ordinances (if applicable). City and County regulation will be documented and made available for all IAR members.

### *General Business Standard (optional)*

#### **Incorporate economical energy efficiency techniques into regular business practices.**

Pollution prevention opportunities exist for general business practices that can reduce energy use and save the facility money as well as furthering the environmental stewardship of an auto salvage yard. Simple, but proven, energy efficient recommendations include:

- Compact Fluorescent Light bulbs (they would then be recycled with other fluorescent bulbs generated at the facility)
- LED exit sign lighting
- Programmable thermostats
- Motion sensitive lighting to automatically turn lights off in empty rooms
- Used oil furnace
- EnergyStar® copiers, fax machine, computer monitor, and other office equipment



## *Environmental Standards*

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### *Environmental Standard 1*

**All automotive fluids are properly removed and managed as part of the dismantling procedure and/or prior to crushing the vehicles. Evacuated fluids include fuel, used oils and antifreeze.**

Vehicle dismantling can result in spills and leaks as fluid-containing parts are removed. Vehicle crushing may also release any remaining fluids. Proper management includes draining parts, controlling any leaks and spills, and recycling, reusing, or disposing of the fluids.

The fluid evacuation process at a salvage yard generates the most problematic wastes of any automotive recycling activity. All fluids, whether they are waste or reusable product, pose certain risks if introduced to the environment. Proper handling, storage and disposal of automotive fluids such as fuel, antifreeze and used oil, which includes transmission, brake and other fluids, is key to minimizing exposure to the environment.

Properly remove the following fluids from the vehicle during the dismantling operation:

- Used Oils
- Fuel
- Antifreeze
- Freon
- Wiper fluid

Keeping waste types segregated is the best means to compliance and the least expensive way to dispose of the waste. Most regulations pertain to the storage and disposal of wastes. Many automotive wastes have been exempt from more stringent regulation to encourage recycling and to streamline the management of commonly generated wastes.



*Environmental Standard 2*

**Used oils, including crank case motor oil and brake, transmission, power steering, rear axle housing and hydraulic fluids, are managed according to the used oil management standards.**

78.8 percent of Iowans get their drinking water from groundwater sources; only six states rely more on groundwater for a drinking source. Wells are susceptible to contamination from improper use or disposal of used oils, fuels, antifreeze and other automotive fluids.

Used oil that has not been mixed with hazardous waste is exempt from hazardous waste regulation provided it is recycled or burned for energy recovery. The use of used oil or oily waste for dust suppression purposes is specifically banned.

On-Site Storage of used oil must meet the following standards:

- 1) Containers and storage tanks must be in good condition.
- 2) Containers must be clearly marked "Used Oil."
- 3) Fill pipes for underground used oil storage must be clearly marked "Used Oil."

A used oil generator is the original producer of the used oil. Recycling options for generators of used oil include the following:

- 1) Provide used oil to a marketer, in this case the generator is not required to test for used oil fuel specifications.
- 2) Self-transport in quantities of 55 gallons or less to a state-recognized used oil collection center.
- 3) Provide used oil directly to a burner, in this case the generator becomes a marketer and must test for specification parameters.
- 4) Burn used oil on site in a used oil furnace provided that:
  - a) Oil is generated on site or collected from Do-It-Yourselfers.
  - b) The furnace has a maximum capacity of no more than 0.5 million BTU/hr.
  - c) The furnace is vented to the outside.

Facilities with oil storage capacity of 1320 gallons or more are required to prepare and implement a Spill Prevention Control and Countermeasures (SPCC) plan to ensure that the appropriate measures have been taken to reduce the risk of oil reaching navigable waters in the event of spill.



## Household Hazardous Material Retail Sales Permit

Motor oil that is sold as a retail product is a Household Hazardous Materials (HHM) that requires the display of signage under the permit rules discussed in the licensing and regulatory standards of the certification manual.



Retailers selling motor oil are required to accept used oil from the public for recycling/reuse or post a sign indicating the name and address of the nearest location where the public can take used oil for recycling or reuse. The sign must also state that it is unlawful to dispose of used oil in a sanitary landfill.

Used oil collection locations are available in the [Iowa Automotive Directory](#). Salvage yards that take used oil from the public can be listed in this directory.

Salvage yards that do not sell but do accept used oil from Do-it-yourselfers (including farmers generating less than 25 gallons per month) may wish to display the used oil signage in recognition of the community service they provide. For additional information on the collection of used oil from the public see [567- Chapter 119](#) of the Iowa Administrative Code or contact the DNR.

Iowa DNR Used Oil signage for HHM Permit compliance can be downloaded from the Iowa DNR website at [http://www.iowadnr.com/waste/hhm/files/oil\\_sign.pdf](http://www.iowadnr.com/waste/hhm/files/oil_sign.pdf).



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### *Environmental Standard 3*

**Evacuated fuel is managed as a usable product or properly disposed of as a hazardous waste if not useable.**

Evacuated Fuel from automobiles generally does not become a waste unless it has been contaminated or has become unsuitable for use in an automobile engine due to its chemical degradation (varnished).

If the fuel is contaminated with material that can be filtered out, do so. If gasoline has become varnished, try using it in small two-cycle or four-cycle engines (for example, lawn mowers), or dilute it with clean fuel for use.

If there is no acceptable use for the fuel, it should be disposed of through an EPA-permitted hazardous waste management company that will use it to fuel industrial furnaces. Hazardous waste fuel should also be included in the facility's hazardous waste generation inventory and maintained on-site in compliance with all applicable hazardous waste generator regulations (i.e., CESQG or SQG).

- 1) Manage used fuel as usable product unless is as designated as waste fuel.
- 2) Manage waste fuel as a hazardous waste.





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### *Environmental Standard 4*

**Used antifreeze evacuated from the dismantled vehicle is managed as a usable product or properly identified as either hazardous or non-hazardous waste and managed according to the waste determination.**

The main chemical in antifreeze is ethylene glycol, a deadly but sweet-tasting poison. Because of its sweet taste, children, wildlife and pets are attracted to it. As little as two ounces can kill a dog and only two tablespoons is hazardous to a child. Always store used or unused antifreeze out of the reach of children and pets and never store used antifreeze in a container that once held a beverage.

Even though antifreeze is poisonous it actually becomes a potentially hazardous waste contaminated with dirt, traces of fuel, oil and metals such as copper, lead and zinc during use. Antifreeze may also have high enough concentrations of cadmium and chromium to deem it a hazardous waste.

Potentially hazardous waste such as waste antifreeze is subject to a hazardous/non-hazardous waste determination through TCLP methodology. A representative sample of waste antifreeze should be sent to an analytical laboratory for testing using the TCLP methodology for the parameters recommended in the Licensing and Regulatory Standards section of this certification manual.

If hazardous, waste antifreeze must be managed on-site in accordance with the applicable generator regulations and disposed off-site by an EPA-permitted hazardous waste management company.

If non-hazardous, used antifreeze may be recycled on or off site without restriction.

If antifreeze is NOT designated as a waste then the waste management rules do not apply. Used antifreeze should continue to be stored in clearly marked barrels. Sales records should be maintained to provide adequate documentation as to the whereabouts of the product after evacuation.

- 1) Manage used antifreeze as useable and saleable product by following the HHM permit rules.
- 2) Test waste antifreeze to determine if it is hazardous waste.
- 3) Manage hazardous waste antifreeze according to hazardous waste management rules.



### **Household Hazardous Material Retail Sales Permit**

New and used Antifreeze that is sold as a retail product is a Household Hazardous Materials (HHM) that requires the display of signage under the permit rules discussed in the Licensing and Regulatory Standards of the certification manual.



Used antifreeze collection locations are available in the [Iowa Automotive Directory](#). Salvage yards that take used antifreeze from the public can be listed in this directory.



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### *Environmental Standard 5*

**All fluids are stored inside a building, or outside with secondary containment.**

New and recyclable fluids and chemicals should be stored, transported, disposed of, handled, and used in ways that prevent or minimize exposure to the environment.

- 1) Protect stored automotive fluids from accidental release by providing coverage storage with secondary containment.

### *Environmental Standard 6*

**Prevent or manage hazardous substance spills according to the applicable rules.**

In Iowa, Section 304 Emergency Release Notification is coordinated through the Department of Natural Resources Emergency Response and Homeland Security Unit. Section 304 notification at the federal level is made through the National Response Center at (800) 424-8802. Federal requirements for reporting are based on reportable quantities as listed in EPA's [List of Lists](#). Iowa does not utilize reportable quantities, instead determining whether each incident creates a "hazardous condition" based on risk to human health and safety, property and the environment.

If a hazardous substance spill meets **any** of the following guidelines it must be reported to the Department of Natural Resources Emergency Response Unit at (515) 281-8694.

- The hazardous substance has the potential to leave the property by run-off, sewers, tile lines, culverts, drains, utility lines or some other conduit.
- The hazardous substance has the potential to reach a water of the state - either surface water or groundwater.
- The hazardous substance can be detected in the air at the boundaries of the facility property by the senses (sight and smell) or by monitoring equipment. There is a potential threat to the public health and safety.
- Local officials respond to the incident.
- The release exceeds a Federal Reportable Quantity (RQ).



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### *Environmental Standard 7*

**Maintain a Spill Prevention Control and Countermeasures (SPCC) plan at facilities with oil storage capacity of 1,320 gallons or more.**

Recent changes to the SPCC rules have allowed facilities with less than 10,000 gallons of on-site storage capacity to self prepare a written spill prevention plan. The new rules are less stringent but have also created a sense of urgency as all applicable facilities are required to have written plans by November 10, 2010.

Facilities with oil storage capacity of 1320 gallons or more are required to prepare and implement a Spill Prevention Control and Countermeasures (SPCC) plan to ensure that the appropriate measures have been taken to reduce the risk of oil reaching navigable waters in the event of spill.

Title 40, Section 112 of the Code of Federal Regulations (CFR) requires a Spill Prevention Control and Countermeasures (SPCC) plan for facilities with total aboveground petroleum product storage (i.e., new oil, used oil and fuel) capacity in excess of 1,320 gallons (container with volume of 55 gallons or more only). SPCC plans are designed to minimize the potential for a petroleum release to occur and mitigate any environmental impacts in the event one does occur.

**Facilities with greater than 10,000 gallons of oil storage capacity** SPCC Plans must be reviewed and certified by a licensed Professional Engineer.

**Qualified Facilities with less than 10,000 gallons of oil storage capacity** have the **option** to prepare a self-certified SPCC Plan. Qualified Facility – must meet all of the following criteria

- ✓ The facility must have 10,000 gallons or less in aggregate aboveground oil storage capacity and;
- ✓ The facility must not have had a single discharge of oil to navigable waters exceeding 1,000 U.S. gallons for three years prior to the SPCC Plan certification date and;
- ✓ The facility must not have had two discharges of oil to navigable waters each exceeding 42 U.S. gallons within any twelve-month period for three years prior to the SPCC Plan certification date.

### **Deadline for preparation of SPCC**

A facility **in operation on or before August 16, 2002**, must maintain it's current SPCC plan. The facility must amend the plan, if necessary, to ensure compliance, and must implement the amended plan as soon as possible, but not later than July 1, 2009.

A facility that becomes **operational between August 16, 2002 and July 1, 2009**, must prepare and implement a Plan by July 1, 2009.



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A facility that becomes **operational after July 1, 2009**, must prepare and implement a Plan before you begin operations.

### **Preparation and Amendment**

- A copy of the Plan must be maintained at the facility or property where oil is stored or the nearest attended facility if the storage area is not normally attended at least four hours per working day.
- SPCC Plans must be amended within six months whenever there is a change in facility design, construction, operation, or maintenance, which affects potential for oil discharge. The plan must be reviewed and recertified every five years either by a professional engineer or self-certification.

### **The SPCC Plan Must Include**

- Written descriptions of any spill events in the preceding twelve months, including corrective action and plans to prevent recurrence.
  - Physical layout of facility, including a diagram marking location(s) and contents of each oil storage container and any completely buried tanks, transfer stations and connecting pipes.
  - Predictions of the direction, rate of flow, and total quantity of oil that could be discharged.
  - A complete discussion of the spill containment and/or diversionary structures or equipment used at the facility, including:
    - Dikes, berms, or retaining walls
    - Curbing
    - Culverts, gutters, or other drainage systems
    - Weirs or booms
    - Spill diversion/retention ponds
    - Double-wall tanks with interstitial monitors (i.e., electronic, manual or visual means)
    - Sorbent materials
  - A discussion of how the facility manages containment area drainage, including:
    - Storm water in dikes (i.e., restrained by locked valves)
    - Dike drainage practices (i.e., inspection procedure and manual discharge)
    - Management of undiked areas (i.e., diversion to a retention area)
  - Bulk storage practices, including:
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- Verification that tank material and construction are compatible with material stored
    - Secondary containment means (i.e., double walled tanks with interstitial monitoring, dikes with capacity equal to the largest tank plus 10%, holding ponds, etc.)
    - Procedure to ensure that drainage of containment area does not release oil and the record keeping system to document compliance (i.e., diked area drain valve locked closed; area inspected for product before the valve is opened; valve opened to drain precipitation; valve locked closed; valve operator signs inspection/drainage record for that event)
    - Integrity testing procedures and record keeping (i.e., hydrostatic testing, visual inspection, and/or nondestructive shell thickness testing)
  - Facility transfer practices, including:
    - Means to limit corrosion of buried piping
    - Means to inspect and maintain aboveground valves and piping
    - Procedures to warn vehicles to avoid damaging aboveground piping and storage, where appropriate
  - Tank truck loading and unloading practices, including:
    - Documentation that loading and unloading procedures meet Department of Transportation (DOT) requirements
    - Loading/unloading area containment capacity (i.e., at least the capacity of the largest single compartment of the vehicle being loaded or unloaded) and containment method
    - Means to prevent vehicle departure before transfer lines are disconnected
  - Inspection and documentation means to assure the plan is being implemented. Records must be kept for at least three years.
  - Site security, including:
    - Restriction of access to oil handling and storage areas
    - Means to secure tank valves, pumps, and loading and unloading connections when in standby status
  - SPCC training programs conducted, including:
    - Operation and maintenance of equipment
    - Applicable environmental regulations and requirements overview
    - Designation of an SPCC Plan coordinator
    - Training schedule
    - Personnel training records
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- A “Certification of the Applicability of Substantial Harm Criteria” form should also be completed.
  - If all five questions on the form are answered No, then the form need only be included and maintained as part of the SPCC.
  - If any question is answered yes, a facility-specific response plan must be submitted to the EPA.

### ***Reporting***

In addition to emergency notification, facilities must provide a written report to the Region VII Environmental Protection Agency (EPA) and Iowa Department of Natural Resources (DNR) within 60 days if more than 1,000 gallons of oil are discharged or a discharge of more than 42 gallons in each of two spill events within a 12-month period.

The report should include:

- Name of facility
- Name of facility owner or operator
- Location of the facility
- Date and year of initial facility operation
- Maximum storage or handling capacity and normal daily throughput
- Description of the facility including maps and flow diagrams
- Cause(s) of the spill including failure analysis
- Corrective actions and/or countermeasures including any equipment repair or replacement
- Additional preventive measures to minimize recurrence



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### *Environmental Standard 8*

**All lead-acid batteries are properly removed and managed as part of the dismantling procedure and/or prior to crushing the vehicles. Spent lead-acid batteries are placed either in a covered storage area on an impervious surface or in plastic containers with lids. Spent lead-acid batteries are recycled through a reputable battery recycler.**

Spent lead-acid batteries contain lead and corrosive acids that are considered hazardous wastes that can contaminate soil and groundwater and, therefore, cannot be disposed of at any Iowa landfill. However, batteries are exempt from hazardous waste regulations if recycled. Batteries should be handled and managed in a way that prevents release of the acid to the environment.

Spent lead acid batteries are exempt from hazardous waste regulations if they are recycled, but the waste generator is still responsible for contamination caused by batteries transported off site as well as stored on site. Spent lead acid batteries do not need to be included in the facility's hazardous waste generation total.

Batteries should be stored safely and only reputable recyclers should be used. New and used batteries should be stored in a safe manner to prevent leaks and subsequent ground contamination. Indoor storage on an acid-resistant rack or tub is preferable. Batteries stored outdoors should be stored on an impermeable surface such as concrete with secondary containment, and sheltered from rain to prevent acid run-off. To further prevent pollution, keep a neutralizing agent such as baking soda nearby in case of a spill, do not stack batteries more than three high since that may cause them to fall and crack, and store batteries and battery acid away from flammable liquids, ignition sources and drains.

Keep receipts including the name and location of the recycler, number of batteries sent and the date.



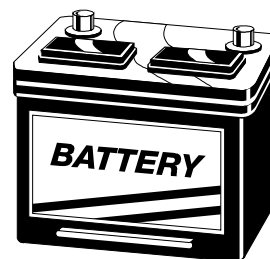


### Household Hazardous Material Retail Sales Permit

New and used batteries that are sold as a retail product is a Household Hazardous Materials (HHM) that requires the display of signage under the permit rules discussed in Licensing and Regulatory Standards of this certification manual.

Retailers selling lead acid batteries shall accept used lead acid batteries from customers who purchase a new lead acid battery. Retailers must also post a sign that states land disposal of lead acid batteries is prohibited and that state law requires retailers to accept lead acid batteries for recycling when a new lead acid battery is purchased.

Used lead acid battery collection locations are available in the [Iowa Automotive Directory](#). Salvage yards that take batteries from the public can be listed in this directory. Iowa DNR Battery signage for HHM Permit compliance can be downloaded from the Iowa DNR website at [http://www.iowadnr.com/waste/hhm/files/batteries\\_sign.pdf](http://www.iowadnr.com/waste/hhm/files/batteries_sign.pdf)





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### *Environmental Standard 9*

**Refrigerant is evacuated from each vehicle in accordance with applicable regulations, or contracts for refrigerant removal with a licensed vendor.**

Section 609 of the Clean Air Act, passed by the US EPA in 1993, requires service practices that maximize the recycling of chlorofluorocarbons (CFCs) during the service of air conditioning equipment. The regulations also set certification requirements for equipment, restricted the sale of refrigerants, and established safe disposal requirements.

### *Environmental Standard 10*

**Records are maintained for off-site refrigerant disposal/reclamation that includes the amount of refrigerant, the date sent, and the facility that received the refrigerant. Proof of technician certification is readily available onsite.**

The Clean Air Act Amendments of 1990 prohibit service related releases of all refrigerants (i.e., R-12 and R-134a). The venting ban became effective January 1, 1993. In addition to the release ban, facilities performing AC repair work must use EPA-approved refrigerant recovery/recycling equipment and certified AC service technicians must complete all work. If the refrigerant is recovered and then leaves the service establishment (i.e., in storage containers) it must then be reclaimed to the ARI 700-88 standards to assure purity. All service facilities must submit a MAC notification to the EPA if AC service work is performed.

The waste refrigerant does not need to be included in the facility's hazardous waste generation total.



*IOWA CERTIFIED AUTOMOTIVE RECYCLERS ENVIRONMENTAL PROGRAM*

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*Environmental Standard 11*

**Engines and transmissions to be resold are stored under a permanent roof on an impervious surface, or in an outside covered weather-proof container.**

Improperly stored engines and transmission can release motor oil and transmission fluid to the environment and contaminate storm water runoff.

*Environmental Standard 12*

**Scrap core, engines and transmissions are stored under a permanent roof on an impervious surface, in an outside covered weather-proof container, or an impervious surface that drains to an oil-water separator.**

Improperly stored engines and transmission can release motor oil and transmission fluid to the environment and contaminate storm water runoff.

*Environmental Standard 13*

**Vehicle hoods are routinely kept closed to reduce exposure to rain fall of engines that remain in the vehicles stored in the yard.**

Practices that reduce the expose of grease and oils to the weather elements make good Best Management Practices (BMPs) that can be included in the facility's Storm Water Pollution prevention Plan (SWPPP).



## IOWA CERTIFIED AUTOMOTIVE RECYCLERS ENVIRONMENTAL PROGRAM

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### *Environmental Standard 14*

**Spent solvents from parts cleaning systems are disposed of with an authorized processor.**

Washing of recycled parts may be an important part of a facility's operation, housekeeping, and quality control activity. Proper washing procedures using either solvents or water-based aqueous solutions can minimize the amount of contaminants that are released to the environment.

Waste solvent generated from the cleaning of parts often exhibits the characteristic of ignitability (flash point below 140 degrees Fahrenheit) and toxicity. Hazardous waste must be included in the facility's hazardous waste inventory, managed on-site in accordance with applicable generator requirements (i.e., CESQG or SQG) and disposed off-site by an EPA-permitted hazardous waste management company.

Waste generated from the cleaning of vehicle or machine parts may be hazardous due to lead, benzene, or other parameters if their concentrations meet or exceed the allowable limits established by the EPA. Waste petroleum-based solvent also exhibits the characteristic of ignitability (flash point below 140 degrees Fahrenheit) therefore is hazardous waste. Hazardous waste must be included in the facility's hazardous waste inventory and removed by an EPA-permitted hazardous waste management company.

Alternative solvents such as aqueous-based cleansers are available that have the cleaning speed of the traditional petroleum-based solvents. Often these parts washers contain microbes that digest the grease and grime therefore leaving a non-hazardous wastewater to be disposed.



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### *Environmental Standard 15*

**Wash water from water-based parts washers is either recycled or collected for disposal in an approved manner.**

All methods of industrial or commercial wastewater discharge are subject to some type of permit, approval or contaminant restriction. At a minimum, all commercial wastewater discharge activity should be reported to the publicly owned treatment works (POTW).

Facilities that discharge wastewater to a surface water must obtain a federal National Pollutant Discharge Elimination System (NPDES) permit. October 6, 1994, correspondence from the Iowa DNR states:

“First, it (wastewater) may not be discharged to a water of the state without or contrary to the conditions of a NPDES permit. It is unlikely that the department (DNR) would issue a permit authorizing a discharge from a facility floor drain or wash bay drain unless the facility could demonstrate that they were employing the best available treatment technology economically achievable for their wastewater.”

Based on Iowa DNR correspondence, alternatives to surface discharge include 1) connecting to city sewer (preferred option), 2) on site recycling, and 3) collection/transport to a city sanitary wastewater treatment plant.

While this wastewater recycling equipment is relatively expensive, compliance issues are reduced and possibly eliminated if no wastewater is discharged. Treating wastewater at the city plant will require installation of storage tanks and transportation equipment or contracts and testing of the water prior to removal. Discussion as to the feasibility of this option should be conducted with the local wastewater treatment plant superintendent.

Even wastewater discharged to a city sewer system can create a potentially hazardous waste as sludge builds up in the sump of the floor drain system at the facility.

Sump sludge may be hazardous because of contaminants such as metal particulate or solvents. As a result, a representative sample of sump sludge should be collected and tested for the TCLP parameters, listed in the Licensing and regulatory Standards of this certification manual. If the sump sludge is found to be hazardous, it must be disposed of through an EPA-permitted hazardous waste management company, stored in sealed and labeled containers, and included in the facility's hazardous waste inventory.

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### Environmental Standard 16

**Waste tires are stored on-site with at least 50 feet of clearance between tire piles, the perimeter of the yard and/or structures. No more than 1,500 tires are kept on-site at any given time as agreed with ARA.**

More than 240 million tires are scrapped in the US annually. Tires take up a large amount of landfill space, harbor rodents, provide a breeding ground for mosquitoes, and may be a fire hazard.

Waste tires are banned from disposal in Iowa sanitary landfills. Under Iowa Administrative Code Chapter 117, a waste tire storage permit is required from the Iowa Department of Natural Resources if a person or business that owns or operates a site used for the storage, collection, or deposit of more than **500 waste** tires, or an authorized vehicle recycler who is licensed by the department of transportation, pursuant to Iowa Code section 321H.4 and who owns or operates a site used for the storage, collection, or deposit of more than **3,500 waste** tires. (A waste tire is defined as a tire that is no longer suitable for its originally intended purpose due to wear, damage, or defect.) Effective in June 2002, a waste tire is defined to include tires on the rim. Additionally, the rules require 50 feet of clearance between tire piles, the perimeter of the yard and/or structures.

If transportation of more than 40 tires occurs, the transportation must only occur through a registered waste tire hauler or be self-transported by the owner.

- 1) Keep records of the number of tires removed from the facility and information on the permitted tire hauler providing the recycling service.
- 2) Tires in good condition are reused and tires in poor condition are provided to a tire recycler.

Although 3,500 waste tires are permissible in Iowa, the ARA standard limits on-site storage to 1,500 tires which is one semi-trailer load of waste tires present at the salvage yard.





## IOWA CERTIFIED AUTOMOTIVE RECYCLERS ENVIRONMENTAL PROGRAM

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### *Environmental Standard 17*

**CAR certification requires that the company participates in the National Vehicle Mercury Switch Recovery Program (NVMSRP) or the equivalent state program.**

The NVMSRP is a cooperative effort among auto manufacturers, steelmakers, dismantlers, shredders, US EPA, individual States and representative of the environmental community that gives dismantlers the ability to market reduced-mercury scrap and earn recognition and certain financial incentives. The program also includes an educational component whereas participating dismantlers are to train their employees regarding appropriate participation in the program and regularly publicize and reinforce participation through employee recognition, workplace posters and other means.

On August 5, 2005, federal rules required that mercury-containing equipment requiring disposal are considered Universal Waste (40 CFR 273) and, therefore, are exempt from the more stringent management standards for hazardous waste under the federal Resource Conservation and Recovery Act (RCRA) if recycled.

On January 1, 2007, the Iowa Mercury-Free Recycling Act required the removal of automotive mercury-containing convenience light switches from scrap automobiles before crushing or shredding. The law also requires payment for each mercury light switch that is recovered and properly recycled.

Once removed from the vehicle, mercury switches must be stored in a leak proof, closed container that will prevent the mercury capsule from breaking. Generators of mercury switches cannot accumulate the waste for more than one year. Each container that holds mercury switches must be labeled accordingly (i.e. "Universal Waste"). Along with clearly labeling the contents of the waste containers, identify the length of time the waste has been accumulated. This can be done simply by adding the date that the first switch was placed in the container to the label.

The **End of Life Vehicle Solutions Corporation (ELVS)**, which was created by the auto industry, will provide a collection bucket and arrange for the shipping and recycling of the mercury switches collected free of charge.

In accordance with the Universal Waste Rule all mercury-containing switches must be removed from scrap vehicles prior to crushing or shredding. The new Iowa rule made a provision to pay \$5.00 for each convenience light switch that can be associated with a valid VIN number. Payment will NOT be made for anti-lock brake sensor (ABS) assemblies only for switches recovered from convenience lighting. However, all switches and assemblies received will be properly recycled at no cost to the participants.



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The criteria regarding the \$5.00 payment are listed below:

- *Mercury-containing switches do not have to be removed from convenience light switch assemblies but you may find it easier to remove the switch while leaving the assembly intact on some vehicles.*
- *VIN numbers must be recorded and returned with your switch collection bucket.*
- *All VINs will be validated and must correspond with the appropriate make, model and year of the vehicle that may have contained a mercury switch.*
- *Switches must be intact, with no free mercury leaking from them.*

Questions regarding the ELVS program can be answered by calling ELVS at 734-547-2511.

- 1) Identify which cars contain mercury switches.
- 2) Locate, remove and store mercury switches in a sturdy container to prevent breakage during accumulation, storage, and transportation.
- 3) Label the storage container “**Universal Waste**” and mark it with the date the first switch was placed in the container to document the one-year time limitation.
- 4) Provide proper training to employees responsible for the storage of mercury (i.e. storage, labeling, etc.)
- 5) Capture and contain all accidental releases from broken switches with the same care as other hazardous waste.





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### *Environmental Standard 18*

**Oily wastes such as used oil absorbent and used oil filters are managed in accordance with applicable rules.**

Even after a used oil filter has been drained for many hours, several ounces of oil remain trapped in the filter. This oil may leach out and contaminate ground or surface water.

Oily wastes can have a detrimental effect on the environment if improperly disposed or exposed to the weather elements. Used oil filters are banned from Iowa landfills. Additionally, changes to Iowa Code 455D.13 during the 2008 legislative session requires retailers that sell oil filters to accept used oil filters or post a sign informing the public of the nearest used oil filter collection site.

Oily wastes such as used oil absorbent like clay granules, kitty litter, oil mats or socks can be hazardous due to the contaminants that were absorbed. These wastes must be categorized as hazardous or non-hazardous waste to determine acceptable on and off-site management practices.

A representative sample of oily waste should be sent to an analytical laboratory for testing using the TCLP methodology for the parameters recommended in the Licensing and Regulatory Standards section of this certification manual.

If hazardous, oily waste must be managed on-site in accordance with the applicable generator regulations and disposed off-site by an EPA-permitted hazardous waste management company.

If non-hazardous, oily waste may be recycled on or off site without restriction. The use of used oily waste for dust suppression purposes is specifically banned.

- 1) Do NOT dispose of used oil filters in the dumpster that goes to a landfill.
- 2) Test oily waste to determine if it is hazardous waste.
- 3) Manage hazardous oily waste according to hazardous waste management rules.



### Household Hazardous Material Retail Sales Permit

Oil filters that are sold as a retail product are Household Hazardous Materials (HHM) that require the display of signage under the permit rules discussed in the Licensing and Regulatory Standards of this certification manual.



Retailers of oil filters must accept used oil filters from customers or post a notification of locations where a customer may properly dispose them. The notice must also say that it is illegal to dispose of used oil and used oil filters in a sanitary landfill. The law took effect July 1, 2008.

Used oil filter collection locations are available in the [Iowa Automotive Directory](#). Salvage yards that take used oil filters from the public can be listed in this directory. Salvage yards that do not sell but do accept used oil filters from Do-it-yourselfers may wish to display the used oil filter signage in recognition of the community service they provide.

Retailer's used oil filter signs can be downloaded from the Iowa DNR website at [http://www.iowadnr.com/waste/hhm/files/filter\\_sign.pdf](http://www.iowadnr.com/waste/hhm/files/filter_sign.pdf).



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### Environmental Standard 19

**Fluorescent bulbs are managed as Universal Waste and properly recycled.**

Mercury is an element that can come from both natural and man-made sources. Coal fired power plants are a primary man-made source, as mercury that naturally exists in coal is released into the air when coal is burned to make electricity. Coal-fired power generation accounts for roughly 40% of the mercury emissions in the U.S.

Fluorescent, high-pressure sodium, mercury vapor, and metal halide bulbs are mercury-containing lamps regulated by the Universal Waste Rule (40 CFR 273) to encourage recycling. These lamps are exempt from the more stringent management standards for hazardous waste under the Resource Conservation and Recovery Act (RCRA) if recycled.

Generators of universal waste are exempt from certain requirements routinely applied to hazardous waste and instead are subject to streamlined standards for storing, labeling of waste containers, preparing and sending shipments of universal waste off site, employee training, and response to releases.

Storage - The generator must ensure packing is sufficient to prevent the breakage of used lamps during accumulation, storage, and transportation. Used lamps may accumulate for one year. If used lamps are stored more than one year, the generator must be able to demonstrate that such accumulation is solely for the purpose of accumulating sufficient quantities of waste to facilitate proper recovery, treatment, or disposal. Generators are not required to notify EPA of storage for longer than one year.

Labeling - Universal used lamp containers must be labeled with the words "**Universal Waste - Lamp(s)**" or "**Waste Lamps(s)**" or "**Used Lamp(s)**."

Shipment - Small quantity generators of universal waste are NOT required to manifest universal wastes, notify the regional EPA, or keep records of universal waste shipments.

Training - Employee training requirements include informing employees that handle used lamps of proper handling and emergency cleanup procedures.

Releases - All handlers of universal waste lamps must immediately contain any releases from the lamps due to breakage in accordance to all regulatory requirements.

Hazardous waste lamps that are managed under the Universal Waste Rule do not have to be included in the facility's determination of hazardous waste generator status (i.e. the facility's hazardous waste inventory).



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Universal waste disposal facilities must have RCRA permits. Transporters must comply with applicable DOT regulation.

- 1) Store spent fluorescent bulbs in a sturdy container to prevent breakage during accumulation, storage, and transportation. Label the storage container **“Used Lamps”** and mark it with the date the first bulb was placed in the container to document the one-year time limitation.
- 2) Recycle used lamps through a bulb recycling facility. The recycler will provide storage containers upon request. Maintain the shipment record until disposal is completed.
- 3) Provide proper training to employees responsible for the storage of used lamps (i.e. storage, labeling, etc.) and capture and contain all accidental releases from broken lamps with the same care as other hazardous waste.



## *Safety Standards*

## IOWA CERTIFIED AUTOMOTIVE RECYCLERS ENVIRONMENTAL PROGRAM

### Safety Standard 1

**Utilization of basic personal protective equipment including goggles, gloves, hard hats, safety shoes, safety clothing, and safety shields when required.**

Personal protective equipment (PPE) can help complement other measures taken by employers and employees to minimize hazards and unsafe conditions. Recent OSHA revisions require the employer to complete a written hazard evaluation of the workplace to determine employee hazards and the PPE necessary to protect them.



Personal Protective Equipment (PPE) is specialized clothing or equipment worn by employees for protection against health and safety hazards. Personal protective equipment is designed to protect many parts of the body, including; eyes, head, face, hands, feet, and ears.

### WHAT TO DO:

1. Determine appropriate PPE for the facility.
2. Train each employee required to use PPE. Free online PPE training is available at [www.free-training.com/osh/ppe/ppemenu.htm](http://www.free-training.com/osh/ppe/ppemenu.htm)
3. Make PPE available to employees or require that employees provide their own PPE.

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## Complete Written PPE Hazard Evaluation

Automotive salvage operations conduct activities that require employees to don personal protection equipment (PPE). Check all that apply and retain a copy in the MSDS Binder.

### Dismantle operation:

- ☐ Hoist or lift is used.
  - Requires safety goggles and foot protection.
- ☐ Fluid evacuation of fuel, oils, antifreeze and wiper fluid is conducted.
  - Requires safety goggles.
- ☐ Solvent parts washer is used.
  - Requires safety goggles and chemical resistant gloves.

### Parts handling including removal, shipping and transporting:

- ☐ Bolt cutters, saws and other tools are used.
  - Requires safety goggles and foot protection.
- ☐ Cutting torch is used.
  - Requires foot protection, safety goggles/shield and heat/flame resistant gloves.

### Autobody paint shop:

- ☐ Paint booth is used.
  - Requires respiratory protection.
- ☐ Paint mixing and spray gun cleaning is conducted.
  - Requires safety goggles and chemical resistant gloves.

### Crusher activity:

- ☐ Vehicles are crushed and/or loaded for transport.
  - Requires foot protection.

Employees at automotive salvage operations are required to have and wear personal protective equipment such as safety goggles, foot protection, hard hats, gloves and other gear that will reasonably protect them from on the job hazards. Protecting employee's feet, hands, and eyes are an important yet routine part of auto salvage work.

Employers routinely make items such as safety goggles and gloves available to employees. Fitted gear such as footwear, clothing and rain gear must be maintained by the employee as a condition of employment.

*Safety Standard 2*

**OSHA approved 15-minute eye wash station(s) readily accessible near corrosive materials.**

Workers' eyes may be damaged very quickly by exposure to contaminants in battery storage or vehicle processing areas. The first fifteen (15) seconds after an eye injury is critical. The American National Standards Institute (ANSI) suggests that eye wash stations be located within 25 feet, or a 10 second walk, of critical work areas.

- 1) Provide OSHA approved 15-minute eye wash station (s) where corrosive materials are used. Stations may include hard-plumbed eye wash fountains, drench showers, hand-held drench hoses, or self-contained eye wash units, as long as they meet OSHA's 15-minute continuous flow requirement (ANSI Z358.1).
- 2) If possible, install the eye wash station where injured workers would not have to pass through a doorway, go up or down stairs, or weave between equipment to reach the station.

The OSHA standard 29CFR190.151(c) states "Where the eyes or body of any person may be exposed to injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency use." Not having an emergency eye wash station available for the protection of your employees' eyes is one of the most frequently issued OSHA citations.

Hard-plumbed eye wash stations should be flushed for at least three minutes weekly to ensure proper function and to inhibit bacteria growth. Self-contained systems should also be checked and the solution should be replenished every six month to prevent bacteria growth. Hard-plumbed eye wash stations are preferable where a continuous source of potable water is available.

If an eye injury occurs, quick action can prevent a permanent disability.

- Emergency eyewashes should be placed in all hazardous areas.
- Employees must know where the closest eyewash station is and how to get there with restricted vision.



***Training Opportunity***

A periodic review of the location(s) and function of the eye wash station(s) is a good opportunity to meet the requirements of the monthly safety training program.



### Safety Standard 3

**Readily available, appropriately typed and fully charged fire extinguishers.**

Fires may be caused by welding or torching, fuel or fume explosions, electrical problems, or ignition of combustibles. Take preventive measures, learn how to recognize and respond to different types of fires, and properly handle and store chemicals and flammable liquids.

OSHA rule 29 CFR 1910.157 states that an employer shall provide approved portable fire extinguishers and shall mount, locate and identify them so that they are readily accessible to employees without subjecting the employees to possible injury.

Fire extinguishers must be maintained in a fully charged and operable condition and kept in their designated places at all times except during use. Fire extinguishers for employee use should be selected and distributed based on the classes of anticipated workplace fires and on the size and degree of hazard which would affect their use. **A multi-purpose ABC rated fire extinguisher is appropriate for an auto salvage operation.**

### Inspection Requirements

- ✓ **Inspect Weekly** - Portable fire extinguishers shall be visually inspected monthly.
- ✓ **Conduct Annual Maintenance** - Fire extinguishers are subjected to an annual maintenance check. Record the annual maintenance date and retain this record for one year after the last entry. Hire a professional.



Stored pressure dry chemical extinguishers that require a 12-year hydrostatic test must be emptied and recharged every 6 years. Dry chemical extinguishers having non-refillable disposable containers are exempt from this requirement.

So many of the multi-purpose inexpensive fire extinguishers are on the manufacturer's recall list that it only makes sense to use a professional fire extinguisher service to protect your employees and your business. Provide adequate protection such as back up fire extinguisher when portable fire extinguishers are removed from service for maintenance and recharging.

### Training and education

Provide an educational program for employees to familiarize employees with the general principles of fire extinguisher use and the hazards involved with incipient stage fire fighting. Provide training upon initial employment and at least annually thereafter.

Hands-on practice may be conducted using fire extinguishers scheduled for recharging or those on recall lists.

### Recordkeeping

Record the annual maintenance date and retain this record for one year after the last entry or the life of the shell, whichever is less. Record monthly visual inspections and keep with the fire extinguisher for easy record keeping. Then save the tag from the previous year along with the annual inspection tag.



## IOWA CERTIFIED AUTOMOTIVE RECYCLERS ENVIRONMENTAL PROGRAM

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### *Safety Standard 4*

#### **Train employees on proper operations and handling of cutting torch equipment.**

The auto recycling industry has had an unimpressive history of fires and injury caused by the improper and unsafe use of cutting torches. ARA and our industry is proactively encouraging members to help do their part to not repeat history and start a new trend of safety and awareness.

The ARA (Automotive Recyclers Association) CAR (Certified Auto Recycler) program suggests that the gas cutting torch is a tool that should have limited use and that any use should be monitored and restricted to employees that have been properly trained. All safety protocols must be in place prior to the use of any gas cutting torch.

Facility management and every employee that uses the gas cutting torch should review this document. Further training may be required or advisable based upon your jurisdiction or your property and casualty insurance carrier requirements or suggestions.

A cutting torch is a tool that if not properly used, can lead to explosion, fire, flash burns, skin burns, eye injury and even loss of life. Some insurance companies have changed their insurance policies so that property damage and loss caused by the use of a cutting torch would lead to steeply increased deductibles in the event of a claim. Retain a signed and dated copy of this and any other training programs in the employee files prior to use of a gas cutting torch.

#### **Here are some facts you need to know.**

- Flame temperature can be in excess of 6000 degrees Fahrenheit.
- A misdirected flame, excess heat, or sparks that come near combustible material may cause instant fire, explosion or a delayed, unattended fire or explosion.
- Equipment must be inspected for proper operation. Damaged tips, valves, tanks, regulators, hoses or torch bodies could lead to injuries or devastation related to fire or explosion.
- Pressures must be properly regulated, due to the possibility of an explosion or serious injury.
- Fire and explosion resulting in property damage or injury can occur when the torch comes in contact with hidden dangers such as compressed gas in shock absorbers, exotic materials, hidden fuel lines, hidden insulation or sound deadeners, batteries, and other flammables.

#### **(BMP's) Best Management Practices for Safe Use**

- The best practice is to eliminate the use of the torches completely. The next best option is to severely limit their use. With modern air tools and rechargeable electric tools, torch use can be virtually eliminated. Many facilities around the country have eliminated their use.



## *IOWA CERTIFIED AUTOMOTIVE RECYCLERS ENVIRONMENTAL PROGRAM*

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- Limit access to torch equipment by locking it up, allowing access only by approval of a supervisor, and only allow use to a properly orientated employee.
  - If the torch must be used, move the vehicle or part to be cut into a “clear zone” that is away from combustibles and safety hazards.
  - If the torch must be used, all vehicles located in the work area must have the gas tank removed and placed away from the work area. Any fuel spills must be properly cleaned. Confirm floor or soil is dry and free of debris and flammable materials. Many fires are the result of the fuel igniting after the tank has been removed from the vehicle, but not cleared from the “clear zone”. Confirm all flammables are removed from the cutting path or near it. Do not take any chances. Sparks from cutting activities can fly up to 35 feet; confirm your zone is clear to that size. REMOVE ALL FLAMABLE INTERIOR AND INSULATION COMPONENTS.
  - OSHA eye and face protection standard, 29 CFR 1910.133, requires the use of eye and face protection whenever workers may be exposed to hazards such as flying objects, molten metal, liquid chemicals, acids, or caustic liquids, chemical gases or vapors, or potentially injurious light radiation. Eye protection must conform to the American National Standards Institute (ANSI) Standard Z87.1 - 1989.
  - Wear non-flammable gloves and make sure that clothing is worn in such a manner that sparks or slag cannot enter shirts, ignite flammable clothing, burn skin, or get trapped in loose or baggy clothing.
  - A second employee should observe and be on “FIRE WATCH” during all cutting activities. Fire watch must be continued for at least 30 minutes after the cutting has been completed. Do not do any cutting at the end of the day, when no employees will be around to observe the area. After hours fires are usually the result of a smoldering area that ignites into a fire when no one is there to contain it.
  - Know and understand the type and use of each fire extinguisher. Have the proper class of fire extinguisher on hand in the instance a flame or spark comes in contact with flammable materials while using the gas cutting torch. Have the proper fire extinguishers at your immediate access during all cutting operations. A further safeguard is the use of rechargeable water extinguishers or garden sprayers that can be used to wet the grounds around the cut area. Water provides an affordable solution for fighting the small fires that can occur with paper and grass that may become ignited.
  - The cutting torch is not a hammer. The tip should be free of restriction and properly formed. A damaged tip can lead to improper temperatures and flow that will result in dangerous results and “spitting” of hot molten metal. If your tip is not in good condition, do not use the torch until it is cleaned or replaced.
  - Ensure the area is properly ventilated. Ideally, cutting and welding should be conducted outside. Improper ventilation can lead to an oxygen depleted atmosphere, which can lead to suffocation, while an oxygen rich environment is a severe risk for accelerated fire or explosion.
  - Do not use acetylene at operating pressures above 15 psig (103kPa). This is the maximum working pressure currently permitted by federal regulations.
-

- Do not handle oxygen regulators, oxygen cylinders, valves or any other equipment with oily or greasy hands or gloves. Oxygen reacts with oil and grease in a manner that could easily result in a fire or explosion.
- Do not use the oxygen to blow dirt off clothing. The fabric can become saturated with oxygen and ignited by spark, flames, or cigarettes.
- Do not empty an oxygen cylinder below 25 psig-50 psig (172 kPa-345 kPa). When pressure is below this level, the cylinder will lose its positive pressure allowing dangerous contamination to occur.
- Do not smoke when oxygen or fuel gases are present.
- Perform inspections before every use. Look for cracked or damaged hoses and damaged regulators, valves or tips. Look for any contamination with oil or grease. If any damage is reported, do not use the equipment until it is in proper working order.
- Back off the pressure adjusting screw of the regulator to release spring force before opening the cylinder valve.
- Open the cylinder valves very slowly. Opening oxygen valves quickly could result in a violent reaction if contaminants are present.
- You must purge hose lines individually before lighting the torch with the proper flint type device. (Do not use a lighter or matches!) This purge will assure that no oxy-fuel gas mixture is present in the hoses, which could cause an explosion or fire when the torch is ignited.

Both the Occupations Safety and Health Administration (OSHA - 29CFR 1910.252(a) Fire Prevention and Protection Basic Precautions) and the National Fire Protection Association (NFPA - 51B Standard for Fire Prevention During Welding, Cutting, and Other Hot Work) have established specific requirements for conducting cutting operations (or other "hot" work). Both standards hold management and supervisors responsible for conducting overall safe cutting operations, providing fire protection equipment, and authorizing hot work.

The goal of this document and training is to make the cutting tool the tool of last resort. If the torch is used, follow proper guidelines. If proper guidelines are not followed, death, serious injury or devastating property damage could result.



### ***Training Opportunity***

A quick review of the Cutting Torch Protocol guidance material is a good opportunity to meet the requirements of the safety training program. Repeated training on the safety procedure will remind employees to help keep each other safe.

### Safety Standard 5

#### A stocked first aid kit is maintained on-site.

A first aid kit allows trained workers to respond to a minor injury or illness, and to provide temporary relief of a more serious injury until professional medical assistance is obtained.

First aid supplies are required to be readily available per 29CFR1910.151(b). An example of the minimal contents of a generic first aid kit is described in American National Standard (ANSI) Z308.1-2003 "*Minimum Requirements for Workplace First-aid Kits*." The contents of the kit listed in the ANSI standard should be adequate for small worksites.

#### Minimum Requirements for Workplace First Aid Kits



- At least one absorbent compress, 32 sq. in. (81.3 sq. cm.) with no side smaller than 4 in. (10 cm)
- At least 16 adhesive bandages, 1 in. x 3 in. (2.5 cm x 7.5 cm)
- One roll of adhesive tape, 5 yd. (457.2 cm) total
- At least ten packets of antiseptic, 0.5g (0.14 fl oz.) applications
- At least six applications of burn treatments, 0.5 g (0.14 fl. oz.)
- Two or more pairs of medical exam gloves (latex or non-latex)
- At least four sterile pads, 3 in. x 3 in. (7.5 x 7.5 cm)
- One triangular bandage, 40 in. x 40 in. x 56 in. (101 cm x 101 cm x 142 cm)

#### *Additional (but optional) items include:*

- |                                    |   |
|------------------------------------|---|
| • Four 2x2 inch bandage compresses | • One chemical cold pack, 4x5 inch      |
| • Two 3x3 inch bandage compresses  | • Two roller bandages, two inches wide  |
| • One 4x4 inch bandage compresses  | • One roller bandage, three inches wide |
| • One eye patch                    | • CPR barrier device                    |
| • One ounce of eye wash            |   |

These items are intended to be the minimum for a workplace first aid kit. Depending on the potential for injury, a more complete kit may be necessary. OSHA recommendations do not include an automated external defibrillator (AED), but current emergency cardiac care guidelines from the American Heart Association recommend AEDs in most public places. The first aid supplies should be located in an easily accessible area, and the first aid provider generally should not have to travel through several doorways, hallways and/or stairways to access first aid supplies.



### *Safety Standard 6*

#### **Spill kit(s) is maintained on-site.**

A spill kit allows workers to capture, contain, and clean up spills or leaks of fuel, new or used oils, antifreeze, solvents and other fluids.

Every salvage yard should maintain a spill cleanup kit on-site at the facility in the event of an emergency spill. Spills have a few issues with which to be concerned.

First is the protection of employees (and customers) if the spill contains hazardous material. To accomplish this task the appropriate type of spill cleanup kit must be selected from the myriad of choices available.

The second issue is to make sure that employees are trained on the use and locations of all spill cleanup kits. Simple to do as long as you do it, it's called TRAINING.

Finally, if the quantity of material spilled is sizeable or made of acutely hazardous chemicals the spill must be reported to the regulatory agency. In some instances, an emergency response team will be discharged. These types of spill are infrequent at a well-equipped salvage yard.

#### **Five Easy Steps to Choosing a Spill Kit**

##### *1. What liquids will you be absorbing?*

Choose a spill kit with absorbents designed to absorb the automotive products present at the salvage yard.

- **Stock a general purpose oil absorbent such as granule “kitty litter” floor dry to absorb small spills of antifreeze, oil and fuel spills.**
- **Stock a hydrophobic (oil-only) absorbent mats or socks to absorb oily spills that are mixed with water (like rain or snow) to reduce the volume of waste material.**
- **Stock an acid neutralizer for battery acid spills. Commercially available products work well and are relatively inexpensive. Baking soda can be used. Battery acid is a sulfuric acid solution in water. Baking soda is a mild alkali bicarbonate of soda. Together they become neutral material.**



*2. What is the volume of your worst-case scenario spill?*

Determine the largest amount of liquid that could be spilled from a single container or holding tank. If your liquids are stored in drums, this would likely be the contents of an entire drum, normally either 32 or 55 gallons. If you store liquid in totes, consider the volume of your largest tote – usually anywhere from 200 to 500 gallons.

Remember, that it may not always be practical to absorb the entire contents of a spill, especially if it is a large one. Spill kits can be used in conjunction with non-absorbent dikes and drain covers that help channel or contain liquids, so that they can be recovered with vacuums or pumps. After a bulk of the liquid has been removed, absorbents can then be used to remove the remainder of the spill.

*3. What type of container works best for your location?*

Some facilities choose to locate spill kits in every area prone to spills, such as the dismantling areas, dispensing stations and waste fluid storage areas. Others choose to have one or two kits that can be transported to the area where a liquid is spilled.

Small spill kits with handles make them easy to carry to the site of a spill. Dollies and wheeled containers can be used to make larger kits portable. A spill kit on casters, weighing 80 pounds will be great for a spill inside a warehouse, but may not be the best option for people to carry a long distance over rough soil.

If locating spill kits in each spill prone area, consider wall-mounted kits for smaller spills or a spill response center for larger spills.

*4. Do you need any Personal Protective Equipment (PPE)?*

Acid resistant gloves and/or aprons for responses to battery acid spills are good PPE to keep on hand. A conveniently placed pair of safety goggles in the spill kit is also a good idea.

*5. Do you already have a cabinet or container for your kit?*

There is no regulation that tells you what a spill kit must include, or what the container must look like. If you already have a storage cabinet or old spill kit containers just restock them based on your absorbency needs.



***Training Opportunity***

A review of the location and contents of the stocked spill cleanup kit is a good way to meet the monthly safety training requirements.

## IOWA CERTIFIED AUTOMOTIVE RECYCLERS ENVIRONMENTAL PROGRAM

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### *Safety Standard 7*

**A safety program in which a particular individual is in charge of regularly scheduled safety meetings and safety inspections.**

A Safety Program will consist of guidelines for developing and maintaining safe operations within the facility. A designated Safety Manager will be responsible for overseeing the Safety Program.







## *Licensing & Regulatory Standards*



## IOWA CERTIFIED AUTOMOTIVE RECYCLERS ENVIRONMENTAL PROGRAM

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### *Licensing & Regulatory Standard 1*

**Iowa Automotive recyclers require these state permits or licenses that authorize the business to operate, other city, county or municipal permits may also apply:**

- Iowa DOT Recyclers License
- Iowa DOT Used Car Dealers License (optional)
- Sales Tax Permit
- Household Hazardous Material (HHM) permit (if applicable)

These permits and licenses vary by locality and/or state and may include:  
Salvage license – Used car dealer licenses – general business license – vehicle repair shop permit – wrecker certificate merchant's license – seller's permit – sales tax permit

### **Iowa Department of Transportation (DOT) Vehicle Recyclers License**

<http://www.iamvd.com/ovs/recycler.htm>

A vehicle recycler's license is required of a dealer who engages in the business of vehicle salvage, vehicle rebuilder or selling used parts. This does not apply to new car dealers.

To obtain a vehicle recycler's license, you must have a place of business where you maintain regular business hours and the public can contact you. Regular business hours are a minimum of 32 hours, Monday through Friday, where the office is staffed during these hours. Your place of business must include an office, be equipped with a telephone, and comply with local zoning and ordinance requirements.

If the business stores, keeps, buys or sells 10 or more wrecked, scrapped, ruined, dismantled or inoperative vehicles, you must comply with the Iowa Junkyard Control Law, Chapter 306C.2 of the code. The law prohibits junkyards within 1,000 feet of the nearest edge of any interstate or primary highway, except those which are:

1. effectively screened by natural objects, plantings, fences or other means approved by the Iowa DOT;
2. located in industrial zones or unzoned industrial areas; or
3. not visible from the main traveled portion of the highway; or
4. established prior to July 1, 1972.

Vehicle Rebuilders must certify that at their location there is a 14' X 24' (*inside measurement*) area in a building for rebuilding and restoring vehicles, sufficient storage for all vehicles in the inventory and equipment necessary to perform rebuilding and restoring of vehicles in the inventory.



## IOWA CERTIFIED AUTOMOTIVE RECYCLERS ENVIRONMENTAL PROGRAM

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Used Vehicle Parts Recyclers must certify that at their location there is sufficient storage for the vehicle parts in the inventory.

Vehicle Salvager must certify that there is sufficient storage for vehicles, vehicle parts, and vehicle bodies included in the inventory, and that there is sufficient equipment necessary to perform dismantling, scrapping, or storing of vehicles and/or vehicle parts included in the inventory.

The license fee is \$70. Any supplemental location within the same county at which business is conducted is referred to as an extension. There is no additional license fee for an extension, but any extension address must be listed when applying. Selling rebuilt vehicles at retail will require a motor vehicle dealer's license. A recycler's license does not authorize selling vehicles at retail.

### **Iowa Department of Transportation (DOT) Motor Vehicle Dealers License (optional)**

<http://www.dot.state.ia.us/mvd/ovs/dealer.htm>

A motor vehicle dealer's license is required of a dealer who engages in the business of vehicle sales. Dealers must be bonded and establish a place of business. A \$50,000 surety bond must be filed with the department of transportation. This can be obtained through your insurance agent or an Iowa licensed bonding company. Establish a place of business separate from any other business that includes an office, a repair facility and a display facility. Other requirements exist as well.

Used Motor Vehicle Dealer Required Licensure Training: All used motor vehicle dealer license applicants are required to attend a 5-hour license renewal course every other year in the even numbered years. Current continuing education credit must be obtained by December 31, 2010. At least one individual associated with the used motor vehicle dealer as an owner, principal, corporate officer, director or member or partner of a limited liability company or limited liability partnership must complete the required education course. Information relating to class schedules, locations, and fees can be obtained via the web at [www.iowaiada.com](http://www.iowaiada.com).

### **Iowa Sales Tax Permit**

Iowa sales tax is six percent (6%) as established by Iowa state law and anyone making taxable sales in Iowa must obtain a sales tax permit from the Iowa Department of Revenue. *(The rate on the purchase of vehicles subject to registration remains at 5 percent. It is imposed on the purchase price).*

For an Iowa based retailer this is an "Iowa Retail Sales Permit." For a retailer based out of state making taxable sales with Iowa residents this is an "Iowa Retail Use Permit."

The Iowa sales tax permit authorizes the retailer to collect sales tax from a customer and then the permit number is used to when remitting the sales tax collected back to the state. Retailers

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should note that a sales tax permit is not a license for the retailer to purchase items free of tax. If you have more than one business location, an Iowa sales tax permit must be obtained for each business location.

You may apply for your Iowa sales tax permit by completing the Iowa Business Tax Registration Form online at: [www.state.ia.us/tax/business/business.html](http://www.state.ia.us/tax/business/business.html) and following the instructions for filing with the Iowa Department of Revenue.



### Household Hazardous Material Retail Sales Permit

Iowa retailers that sell Household Hazardous Materials (HHM) are required to a) obtain a permit from the Iowa Department of Revenue and Finance, and b) participate in a consumer information program which includes posting information about HHM (labels, signs, and brochures that can be obtained from the DNR). <http://www.iowadnr.com/waste/hhm/index.html>. Household materials commonly sold at salvage yards include;

- Antifreeze,
- Batteries,
- Windshield wiper fluid,
- Oil and
- Oil filters.

#### General Requirements

- Display information provided by the Iowa DNR on the proper use and disposal of household hazardous materials.
- To obtain an HHM permit, complete the required application form and send it with the payment to the Iowa Department of Revenue and Finance.  
Iowa Department of Revenue and Finance  
PO Box 10455  
Des Moines, IA 50306-0455
- The annual fee is \$25, and should be made payable to the Treasurer, State of Iowa. The permit is valid from July 1 – June 30. The permit fee is not prorated.



#### **Training Opportunity**

A quick review of the HHM guidance and display information is a good opportunity to meet the requirements of the safety training program. Display information could be updated or replaced each year at the time of renewal.



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## IOWA CERTIFIED AUTOMOTIVE RECYCLERS ENVIRONMENTAL PROGRAM

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### *Licensing & Regulatory Standard 2*

#### **Ensure compliance with Iowa Storm Water regulatory requirements.**

The Iowa DNR administers the Clean Water Act (CWA) requirements as amended in 1972 to prohibit the discharge of pollutants to the waters of the United States from any point source, unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. The CWA was further amended in 1987 to establish a framework for regulating industrial storm water discharge under the NPDES program based on their potential to contribute to storm water pollution from industrial activity. Those industries identified by standard industrial classification (SIC) code include salvage activity. Automotive salvage activity typically uses SIC code 5015 for wholesale used automotive parts.

Automotive salvage yards have particular concerns for adding pollutant to storm water runoff due to the sheer number of vehicles present in a yard at any given time. Effective pollution prevention of these storm water pollutants is accomplished through choosing the most applicable Best Management Practice (BMP) as identified in the Storm Water Pollution Prevention Plan (SWPPP) developed as part of the storm water permit requirements.

#### The Storm Water Permit Process –Six simple steps to compliance

- 1) Complete a Notice of Intent (NOI) to discharge storm water. Iowa DNR Form 542-1415.
- 2) Run a public notice in two widely distributed local newspapers.
- 3) Pay the applicable fee to the Iowa DNR. \$300 per salvage yard for a three-year permit.
- 4) Prepare and maintain a Storm Water Pollution Prevention Plan (SWPPP).
- 5) Begin annual inspection of the facility for storm water pollution prevention and provide training to employees.
- 6) Annually monitor the storm water runoff by collecting samples for laboratory analysis.

#### ✓ **Notice of Intent (NOI)**

The Auto Salvage will apply for an NPDES General Permit #1. The NOI is DNR form 542-1415. The form requires a signature.

#### ✓ **Public Notice**

The public notice must be published for at least one day in the two most widely circulated newspapers in the area. Save a clipping of each notice or obtain an affidavit from the newspaper and submit them with the NOI form to the DNR, include the date of publication.

#### ✓ **Applicable Fee**

Submit the fee for each permit.



## *IOWA CERTIFIED AUTOMOTIVE RECYCLERS ENVIRONMENTAL PROGRAM*

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### ✓ **Storm Water Pollution Prevention Plan (SWPPP)**

The SWPPP should be developed before the NOI is filed. Full implementation will be executed concurrently with operation of the facility. The SWPPP must be signed and made available to regulatory inspectors upon request. The SWPPP will be amended when changes to the facility's operation occur. Changes required by the Department will be made within 30 days with appropriate notification to the Department. Annual inspection and training is required under section C(3) of the permit.

### ✓ **Monitoring and Reporting Requirements.**

The facility is required to sample runoff for the presence of non-storm water discharge or provide a statement explaining why the certification did not take place. The Failure to Certify requires a signature. Any facility that is an "automobile junkyard with over 250 units," is subject to monitoring as an additional facility required under Part V.B.11. of the permit. Collect and submit rainfall samples to a laboratory for analysis annually.

The Auto Salvage should retain a copy of the storm water pollution prevention plan, records of all monitoring information, copies of all reports required by this permit, and records of all data used to complete the NOI to be covered by this permit for the duration of the permit or for a period of at least three years from the date of the measurement, report, inspection, etc.

### Sampling Made Easy

Collect a grab sample and a composite sample for each outfall point or a representative grab and composite sample if all discharge is identical.

1) A grab sample is a one-time sample that represents the discharge in the beginning of the rainfall event. The grab sample must be taken in the first hour of the discharge. The laboratory recommends taking a 3000 milliliters (ml) sample (about two quarts) to ensure enough water to perform all tests is available. The seven parameters tested will cost approximately \$150.

2) A time-weighted composite sample is taken at timed intervals in equal amounts. The composite sample is taken as a combination of (at least three) small samples (called aliquots) taken throughout the duration of the discharge (for at least three hours), with each small sample being separated by at least 15 minutes. The laboratory recommends taking 300-1000 ml at each sample so that the total amount of the composite sample is 3000 ml (about two quarts) to ensure enough water to perform all tests is available. The five parameters tested will cost approximately \$100.



Both sets of samples, the grab and the composite, must be tested for five parameters:

- five day biochemical oxygen demand (BOD);
- chemical oxygen demand (COD);
- total suspended solids (TSS);
- total Kjeldahl nitrogen (TKN);
- total phosphorus;

The grab sample must be tested for two additional parameters:

- ✓ oil and grease;
- ✓ pH;



*Licensing & Regulatory Standard 3*

**Identify all hazardous waste through appropriate analytical laboratory testing or verify documentation of thorough knowledge as non-hazardous waste.**

Every business must determine whether its wastes are hazardous or non-hazardous. Proper waste characterization is essential in determining applicable waste handling and disposal options.

Automotive salvage yards have many wastes that are potentially hazardous. Some of these wastes are exempt from hazardous waste management to encourage recycling. A determination is not necessary for these wastes, if recycled. Other waste may or may not be hazardous. A demonstration of thorough knowledge (such as information obtained from the MSDS or a recent study) or an analytical laboratory test can make that determination.

These wastes are exempt from hazardous waste management, if recycled:

- **Used Oil including Brake, Transmission & Hydraulic Fluids**
- **Spent Lead-Acid Batteries**
- **Fluorescent Bulbs**
- **Mercury Switches**
- **Refrigerant**

These wastes require a hazardous determination prior to selecting a disposal option:

- **Antifreeze**
- **Oily Waste**
- **Used Fuels**
- **Sump sludge**
- **Solvent Waste**

The United States Environmental Protection Agency (EPA) establishes and enforces hazardous waste regulations in Iowa. To implement an effective waste management program, the facility must determine if its wastes are hazardous or non-hazardous. Wastes are defined as hazardous by specific EPA listing or by demonstrating one or more of the following characteristics:

**Ignitability** - A waste is considered an ignitable hazardous waste if it has a flash point less than 140 degrees Fahrenheit. Examples of ignitable hazardous waste include liquids such as mineral spirits or naphtha. Material Safety Data Sheets (MSDS) may be used as a reference in obtaining flash point information on a waste. Ignitable hazardous wastes have the EPA hazardous waste number D001.

**Corrosivity** - A waste is considered hazardous because of its ability to corrode if it has a pH less than or equal to 2 or greater than or equal to 12.5. MSDS may be reviewed to obtain information regarding a waste's ability to corrode. Corrosive hazardous wastes have the EPA hazardous waste number D002.

**Reactivity** - A waste is considered hazardous because of its ability to react with another substance or if the waste is unstable under normal conditions. This includes wastes that react violently with water; explode or generate toxic gases, vapors or fumes when mixed with water or air; or are capable of detonation or exploding. Information regarding the

reactivity or stability ranking of a waste may be obtained from MSDS. Reactive wastes have the EPA hazardous waste number D003.

**Toxicity** - A waste is considered hazardous because of toxicity if it contains one or more of specific contaminants at concentration levels equal to or greater than the corresponding regulatory thresholds. Toxicity is determined by a specific laboratory analytical procedure identified as Toxicity Characteristic Leaching Procedure (TCLP). A waste that exhibits the characteristic of toxicity has an EPA hazardous waste number that corresponds to the specific TCLP contaminant(s) that cause it to be hazardous.

A representative sample of potentially hazardous automotive wastes should be tested for the following TCLP parameters to make an accurate hazardous/non-hazardous waste determination:

<u>TCLP Parameter</u>	<u>Regulatory Level*</u>	<u>EPA Number</u>
<i>Metals:</i>		
Arsenic .....	5.0 mg/L .....	D004
Barium.....	100.0 mg/L .....	D005
Cadmium.....	1.0 mg/L .....	D006
Chromium.....	5.0 mg/L .....	D007
Lead .....	5.0 mg/L .....	D008
Mercury .....	0.2 mg/L .....	D009
Selenium .....	1.0 mg/L .....	D010
Silver .....	5.0 mg/L .....	D011
<i>VOCs:</i>		
Benzene .....	0.5 mg/L .....	D018
Carbon tetrachloride .....	0.5 mg/L .....	D019
Chlorobenzene .....	100.0 mg/L .....	D021
Chloroform .....	6.0 mg/L .....	D022
1,2-Dichloroethylene .....	0.5 mg/L .....	D028
1,1-Dichloroethylene .....	0.7 mg/L .....	D029
Methyl ethyl ketone (MEK) .....	200.0 mg/L .....	D035
Tetrachloroethylene.....	0.7 mg/L .....	D039
Trichloroethylene.....	0.5 mg/L .....	D040
Vinyl chloride.....	0.2 mg/L .....	D043

\* Samples exceeding these levels are hazardous.

If the TCLP test results (of the representative sample) show concentrations less than the regulatory level for each parameter, then the potentially hazardous automotive waste is non-hazardous.

If TCLP results indicate the waste meets or exceeds one or more of the TCLP regulatory levels, the waste must be managed as hazardous waste. This would include storage in sealed, labeled containers and disposal by an EPA-permitted hazardous waste management company. Hazardous wastes must also be included in the facility's monthly hazardous waste inventory.

#### *Licensing & Regulatory Standard 4*

**Identify the applicable EPA hazardous waste generator category and maintain records to ensure compliance with storage limitations, inspection and recordkeeping regulations.**

Three hazardous waste generator categories have been established by the EPA. These include: (1) Conditionally Exempt Small Quantity Generator (CESQG); (2) Small Quantity Generator (SQG); and (3) Large Quantity Generator (LQG). The appropriate generator category for a facility is determined from monthly hazardous waste generation rates and the total weight of hazardous waste stored at the facility at any one time. The following provides a brief description of each generator category and its corresponding regulations.

**CESQG Category** - The Conditionally Exempt Small Quantity Generator category is the least restrictive regulatory category. Facilities that generate less than 220 pounds (approximately 25 gallons or 100 kilograms [kg]) of hazardous waste per calendar month and never accumulate more than 2,200 pounds (approximately 250 gallons or 1,000 kg) of hazardous waste at any given time fall within the CESQG category. Although current regulations do not require CESQGs to obtain an EPA identification number, many hazardous waste transporters are requesting that companies have a number regardless of their generator category.

**SQG Category** - The Small Quantity Generator category pertains to facilities that generate more than 220 pounds but less than 2,200 pounds of hazardous waste per calendar month on either a regular or intermittent basis. Also, an SQG may not accumulate more than 13,200 pounds (approximately 1,500 gallons or 6,000 kg) of hazardous waste on site at any given time. An SQG cannot store hazardous waste for more than 180 days (or 270 days if the waste must be transported further than 200 miles). A waste is considered "stored" from the day the first drop of hazardous waste enters the container.

An SQG is required to obtain an EPA identification number used in preparation of a hazardous waste manifest. A hazardous waste manifest is necessary to track the movement of hazardous waste from the point of origin to the point of the ultimate treatment, storage or disposal (TSD). Only EPA-permitted transporters and TSD facilities are allowed to remove hazardous waste from a facility.

**LQG Category** - The Large Quantity Generator category is the most stringent regulatory level. Facilities generating hazardous waste in excess of 2,200 pounds per calendar month on either a regular or intermittent basis are considered LQGs.

Facility personnel should record the weight of all hazardous waste generated each month. This is known as the monthly hazardous waste inventory and is required to be maintained at every facility generating hazardous waste. At the end of the month, a monthly total should be determined. This information should then be used to determine the appropriate set of regulations (i.e., CESQG or SQG) for the salvage yard.

Record keeping is an important part of maintaining regulatory compliance. Each salvage yard should maintain all environmental/waste management records in a centralized file at the facility. These records should be readily available in the event regulatory personnel inspect the facility.



## *IOWA CERTIFIED AUTOMOTIVE RECYCLERS ENVIRONMENTAL PROGRAM*

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Documents such as laboratory reports, hazardous waste manifests, and a hazardous waste inventory log should be included among these records. Hazardous waste manifests should be maintained for a minimum of three years to document compliance.

*Licensing & Regulatory Standard 5*

**Review and acknowledgement of applicable OSHA requirements pertaining to Material Safety Data Sheets (MSDS), right-to-know, and employee safety.**

Occupational Safety and Health Administration (OSHA) regulations require training on particular topics, such as personal protective equipment, fire prevention, and hazard communications. OSHA regulations for general industry are presented in the Code of Federal Regulations, Title 29, Part 1910. The CAR program does not certify that members are necessarily in conformance with all applicable OSHA regulations, but requires that members review and be aware of the requirements that apply to their facility.

*Licensing & Regulatory Standard 6*

**Establish and maintain a Material Safety Data Sheets (MSDS) program.**

The Iowa Occupational Safety and Health Act (IOSHA) applies OSHA standards (29 CFR PARTS 1910 and 1926) as adopted by Iowa Workforce Development, Division of Labor. This agency investigates safety and health complaints in construction and general industry, fatalities/catastrophes and performs general scheduled inspections in Iowa including a review of an employer's MSDS program.

<http://www.iowaworkforce.org/labor/iosh/>

**What is a Compliant MSDS Program?**

MSDS must be readily accessible to employees when they are in their work areas during their work shifts. This may be accomplished in many different ways. Many employers keep the MSDSs in a loose-leaf binder in a central location at the facility. In workplaces with large numbers of chemicals, MSDS information is kept electronically and accessed through computer terminals. As long as employees can get the information when they need it, any approach may be used.



The employees must have access to an MSDS themselves - simply having a system where the information can be read to them over the phone is only permitted under the mobile worksite provision when employees must travel between workplaces during the shift. In this situation, they have access to an MSDS prior to leaving the primary worksite, and when they return, so the telephone system is simply an emergency arrangement.

A written MSDS program is an excellent tool to help maintain a compliant MSDS program and may include:

1. Designation of person responsible for obtaining and maintaining the MSDSs;
2. How such sheets are to be maintained in the workplace (e.g., notebooks in the work area or electronically with access) and how employees can obtain access to them when they are in their work area during the work shift;
3. Procedures to follow when the MSDS is not received at the time of the first shipment;
4. A list of all products in the facility (an inventory) that require an MSDS to be maintained.

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For employers using hazardous chemicals, the most important aspect of the written program in terms of MSDS sheets is to ensure that someone is responsible for obtaining and maintaining the MSDS sheets for every hazardous chemical in the workplace.

From OSHA website:

[http://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=STANDARDS&p\\_id=10104](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10104)

The dilemma that many companies face is how to keep this information up-to-date and readily available to workers. Failing to have MSDS information up-to-date and available to workers can result in substantial non-compliance violations and fines.



In order to ensure chemical safety in the workplace, information must be available about the identities and hazards of the chemicals. OSHA's Hazard Communication Standard (HCS) requires the development and dissemination of such information:

- ✓ Chemical manufacturers and importers are required to evaluate the hazards of the chemicals they produce or import, and
- ✓ Prepare labels and material safety data sheets (MSDSs) to convey the hazard information to their downstream customers.
- ✓ All employers with hazardous chemicals in their workplaces must have labels and MSDSs for their exposed workers, and train them to handle the chemicals appropriately.

Source: <http://www.osha.gov/SLTC/hazardcommunications/index.html>

The OSHA Job Safety and Health: *It's the Law* poster (OSHA 3165) is available for free from the OSHA Office of Publications. Employers do not need to replace previous versions of the poster, however, all covered employers are required to display and keep displayed, a poster prepared by the Department of Labor informing employees of the protections of the [Occupational Safety and Health Act](#) P.L. 91-596, December 29, 1970 and its amendments.

To order a free copy of the poster in English or Spanish go to:  
<http://www.osha.gov/Publications/poster.html>



*Licensing & Regulatory Standard 7*

**Conduct monthly safety training as recommended by OSHA.**

Safety training should not have a *beginning* and an *end*, but represent an ongoing effort that continually promotes a safe working environment.

Many standards promulgated by the Occupational Safety and Health Administration (OSHA) explicitly require the employer to train employees in the safety and health aspects of their jobs. Other OSHA standards make it the employer's responsibility to limit certain job assignments to employees who are "certified," "competent," or "qualified"—meaning that they have had special previous training, in or out of the workplace.

These requirements reflect OSHA's belief that training is an essential part of every employer's safety and health program for protecting workers from injuries and illnesses. Many researchers conclude that those who are new on the job have a higher rate of accidents and injuries than more experienced workers.

OSHA concluded that effective management of worker safety and health protection is a decisive factor in reducing the extent and the severity of work-related injuries and illnesses. Effective management addresses all work-related hazards, whether or not they are regulated by government standards.

The Iowa Occupational Safety and Health Act (IOSHA) applies OSHA standards (29 CFR PARTS 1910 and 1926) as adopted by Iowa Workforce Development, Division of Labor. This agency investigates safety and health complaints in construction and general industry, fatalities/catastrophes and performs general scheduled inspections in Iowa including a review of an employer's Safety Training documentation.

Several section of this Certification manual have highlighted opportunities for training that coincide with certification requirements and also meet IOSH and OSHA standards.

- 1) Conduct and document employee safety training sessions.
- 2) Maintain documentation for employee safety certification as applicable.



***Training Opportunity***

This icon denotes a section of the certification manual that may be used for employee safety training. Some training sessions are required by law while others just make good common sense to keep employees aware of potential dangers and to help solicit their help in maintaining a safe work place.

*Licensing & Regulatory Standard 8*

**Documentation of appropriate DOT training for employees associated with the shipping of airbags.**

ARA supports the use of non-deployed, OEM airbag modules as viable, economical, and safe alternatives to the use of new, more costly OEM airbags when properly evaluated, handled, stored, shipped, and professionally installed. The U.S. DOT requires that anyone involved with the handling and shipping of airbags, including delivery drivers, be trained and certified. CAR members must verify appropriate DOT training of employees associated with the shipping of airbags. Airbag inflators, airbag modules, and seatbelt pre-tensioners fall under DOT's list of Class 9 Hazardous Materials. This classification is DOT's least restrictive, and applied to items containing minimal amounts of explosive material. Training is required to package, label and ship Class 9 hazardous materials.

*Licensing & Regulatory Standard 9*

**Documentation of appropriate forklift training for employees.**

OSHA requires that any employee who operates a forklift be trained and certified. The training addresses forklift design and parts, operation, driving rules, and maintenance requirements. Operator's performance must be evaluated at least every three years. Refresher training is also available.





## *IOWA CERTIFIED AUTOMOTIVE RECYCLERS ENVIRONMENTAL PROGRAM*

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### Future Standards

#### **New Autobody MACT Standard**

The US EPA has issued a new MACT standard for autobody shops that includes the reduction of Hazardous Air Pollutants (HAPs). The standard will require spray techniques training (possibly certification via written test) and additional reporting. The rule was promulgated in 2007 with requirements set to kick in, in 2008, possibly enforceable mid-2009.

Sue Schauls sat in the rule writing exercise with the EPA in Research Triangle, North Carolina and is able to provide the required training. She also participated in the peer review of the development of the I-CAR testing material.

#### **Iowa Appliance De-manufacturing Rules**

The Iowa DNR has specific requirements the any facility that accepts appliances must adhere to in order to conduct that type of business. The de-manufacturing rules were put in to place in Iowa as part of the mercury reduction effort, similar to the mercury switch legislation. Refrigerant and mercury switches must be captured and managed according to applicable laws prior to dismantling and reclaiming salvage metal from appliances.

#### **Catalytic Converter Reclamation**

In August 1986 the Clean Air Act section 203(a)(3) published policy entitled 'Sale and Use of Aftermarket Catalytic Converters.' As of January 1, 1988, new and reconditioned catalytic converters are required to meet standards imposed by the US EPA. EPA's aftermarket converter policy also requires installers to maintain certain records pertaining to aftermarket converters installed.

#### **Recycle Hybrid batteries**

The carmakers are waiting in the wings. Toyota and Honda place decals with a toll-free number on their hybrid battery packs. Toyota offers a \$200 bounty to ensure that every battery comes back to the company. In a press release, Toyota states, "Every part of the battery, from the precious metals to the plastic, plates, steel case and the wiring, is recycled." Honda collects the battery and transfers it to a preferred recycler to follow their prescribed process: disassembling and sorting the materials; shredding the plastic material; recovering and processing the metal; and neutralizing the alkaline material before sending it to a landfill.

Honda, Toyota and the entire auto industry are pumping millions of dollars into research regarding lithium ion batteries for tomorrow's cars. Their primary motivation is to reduce the cost and increase the potency of hybrid batteries. Fortunately, supplanting lead and nickel batteries with rechargeable lithium batteries is also promising from an environmental perspective. Instead of clogging landfills with more toxic chemicals, hybrids—especially future hybrids powered by lithium ion batteries—may represent greener pastures for car batteries.