



# BMPs

## Best Management Practices for Motor Vehicle Recyclers

### Lead Acid Batteries

Lead acid batteries from motor vehicles contain sulfuric acid and lead. Both are hazardous chemicals that can cause pollution to the environment and pose health and safety risks to humans. Sulfuric acid is corrosive and can burn the skin and eyes. Lead is soluble in water, especially in acidic conditions, and can easily reach groundwater through runoff. Exposure to lead can cause learning and behavior problems in children, fatigue, stomach problems, headaches, depression, anemia, and permanent damage to the kidneys and brain of humans. Batteries can also start fires if the poles are allowed to cross. Therefore, batteries must be handled and stored in a manner that prevents the release of battery acid and lead to the environment and keeps the poles from crossing.

In New Hampshire, lead-acid batteries cannot be incinerated or disposed of in a

landfill. Instead, used batteries should be recharged, rebuilt for resale, or sent to a processor for material salvage.

If the battery is cracked or leaking, the acid must be collected and managed as a hazardous waste. Batteries that are to be disposed of, rather than reused or recycled, are fully regulated as a hazardous waste.

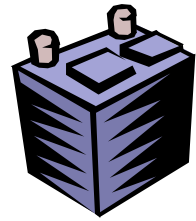
#### **DID YOU KNOW?**

- Approximately 400,000 used motor vehicle batteries are discarded in New Hampshire each year.
- The average motor vehicle battery contains about one gallon of sulfuric acid and 18-20 pounds of lead.
- New batteries are 99 percent recyclable and are comprised of previously recycled materials.

#### **Best Management Practices for Lead Acid Batteries**

- Remove batteries from vehicles soon after they arrive at the facility.
- Test batteries to determine whether they can be recharged and reused, or must be sent to a scrap processor for recycling.
- If the battery is to be scrapped, leave the lead cable ends attached. If it will be recharged and reused, remove the lead cable ends and place cable ends in a container for recycling.
- Store batteries in either a closed, leak-proof, acid-proof container or over a coated concrete, asphalt, or other non-reactive impervious surface.
- Store batteries indoors if possible. If stored outdoors, cover the area to keep rainwater from collecting or running off.

- Stack batteries no more than five high. Place heavy cardboard or wood between each layer of batteries to provide stability and to prevent terminal posts from puncturing the battery above.
- Store batteries in an upright position to prevent leaks from vent holes. Make sure the cell plugs are in place and locate batteries so that side post terminals do not touch each other.
- Do not overfill storage containers. Batteries on the bottom may be crushed and the storage containers may become difficult to move.
- Spread neutralizers, such as lime or baking soda, in the bottom of battery storage bins to help neutralize any spilled battery acid.
- Place cracked or leaking batteries in a closed, leak proof, acid proof storage container, with a neutralizer in the bottom. Five-gallon buckets work well.
- Wear gloves and goggles when handling batteries. If you get battery acid on yourself, wash or flush the area with water **immediately** and seek medical attention. Put baking soda on clothes where battery acid has splashed.
- Never stand near an uncapped battery while a motor vehicle is running and keep all sources of fire, including cigarettes and other smoking materials, away from batteries. Batteries produce explosive gases that are easily ignited.
- Inspect batteries and storage areas at least weekly for leaks and cracks.
- Manage all spilled materials and absorbents as a hazardous waste.
- Do not drain batteries onto the ground or into a storm drain or surface water. Do not flush battery acid down the toilet or work sink.
- Keep batteries in one area of the facility. Storing and charging batteries in one place decreases the chance of spills and leaks throughout the yard and helps you control inventory.
- Do not accumulate batteries for a long period of time. Dispose of them regularly.



***This guide sheet provides general guidance only.***

**For additional information, contact:**

New Hampshire Department of Environmental Services  
 Waste Management Division, N.H. Green Yards Program  
 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095  
 (603) 271-2925 fax: (603) 271-2456  
[nhgreenyards@des.nh.gov](mailto:nhgreenyards@des.nh.gov)



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