Lead Acid Battery Packaging

Materials List

- Safety Glasses and Gloves
- Fish Tote (No cracks or holes)
- Plywood
- Absorbent (Vermiculite or other absorbent)
- Blue board, heavily corrugated cardboard, or regular cardboard (to separate layers of batteries and protect their terminals)
- Shipping Labels
- Special Permit (for shipping by air)
- Straps (for securing the tote lid)

1) It is important to use a nonreactive container to backhaul lead acid batteries if they are being shipped by air. Non-leaking plastic fish totes are good containers for backhauling lead acid batteries.

2) To prepare a fish tote for backhauling lead acid batteries, first apply some sort of absorbent to the bottom of the fish tote. This absorbent can be vermiculite, kitty litter, or some other absorbent material capable soaking up any leaking battery acid.

3) Next, cut a piece of plywood to fit snugly in the bottom of the fish tote (if needed, you can cut multiple pieces and jigsaw them to fit on the bottom). The plywood will give you a level surface on which to stack batteries. After the plywood is in place, apply some more absorbent.
4) You are now ready to stack a first layer of batteries. Carefully, place batteries in the tote so they are sitting upright. Batteries that are not stacked upright are more likely to spill their electrolyte (i.e. battery acid).

5) The first layer is complete when you can easily fit another battery onto the bottom. If needed, you can place excess cardboard into fill in gaps to keep the batteries from jostling during transport.

6) Once the first layer is complete, a protective layer is needed before beginning the second layer of batteries. Heavily corrugated cardboard is ideal for protecting the terminals of the first layer. Also acceptable is blue board (blue Styrofoam) and multiple layers of regular cardboard.
7) Before beginning a second layer, it is a good idea to apply some additional absorbent. Stack a second layer of batteries just like the first.

Separating layer of cardboard with more absorbent sprinkled on top.

Beginning a second layer of batteries.

8) Once full, the lid can be placed onto the tote. The lid will have to be secured with straps. The entire tote needs to be properly labeled before it can be shipped by air. Check with your shipper to determine proper labeling. Typically, a fish tote of lead acid batteries will need the following labels:

- Up arrow labels;
- “Danger” labels;
- #8 Corrosive labels;
- Universal Waste label.

Examples of a typical "up arrow" sticker, “#8 corrosive sticker, and a "Danger" sticker. Check with your carrier to see if they can provide labels. If not, call Total Reclaim to request labels.

A fish tote completely packed with lead acid batteries for recycle. The tote has been properly labeled and the lid has been securely strapped down for air transport.
9) Shipping lead acid batteries by air requires a special permit if you are using non-DOT containers such as fish totes. You can request a permit by writing a hardship letter to DOT in Washington D.C.).

If you obtain a special permit, be sure to follow all the instructions within the special permit. Failure to follow all the items in the special permit can result in major fines.

The Special Permit needs put in a clear plastic bag (to be protected and visible) and attached to the tote lid. The Special Permit Number (ex: SP12283) will also have to be very visible on the tote. Always check with your carrier to ensure that packaging is done properly. When filling out the shipping manifests, be sure the tote is addressed “FROM: (insert your community name here)” and “TO: Recipient name goes here.”

Be sure to work with your recycler and air carrier to ensure the return of your fish tote.

If you have any additional question or concerns, please call Total Reclaim at (907) 561-0544 or e-mail akoutreach@totalreclaim.com.