Recycling Fire Extinguishers

Fire extinguishers consist of a hand-held cylindrical pressure-vessel, usually made of steel or aluminum, and an agent, which can be discharged to extinguish a fire. There are two main types of fire extinguishers: stored pressure and cartridge-operated. Stored pressure fire extinguishers are the most common type and, of these, the ones that have a dry chemical as the agent are most common. The dry chemical is typically mono ammonium sulfate, sodium bicarbonate, or potassium bicarbonate—all of which are considered non-toxic.

Are there any hazards to be concerned about with fire extinguishers? The main concerns are:

- Contents are under pressure and may explode when combined with other materials.
- Very old fire extinguishers (pre 1960's) may contain carbon tetrachloride, a known carcinogen.

If you have a very old fire extinguisher and the label says it contains carbon tetrachloride, contact Ted Jacobson, Alaska Solid Waste Tribal Liaison at EPA at 865-7363 for advice on what to do with the extinguisher.

How to dispose of fire extinguishers

If your fire extinguisher is too old or the contents have been discharged, you will want to replace it. How you dispose of it depends on whether or not it is empty.

If it's not empty:

The casing is usually made out of steel or aluminum and can be recycled. Recyclers will not accept containers that are not empty so you have to discharge all contents first. When emptying the container for disposal:

- Discharge outside, away from children or pets.
- For safety, wear goggles and a particulate mask when discharging extinguisher.
- Pull the pin on the extinguisher—this unlocks the operating lever.
- Squeeze the lever above the handle to discharge contents
- Aim low and discharge contents into a bucket or another container
- After you've finished discharging extinguisher contents and nothing else comes out, remove the head from the container—this will let the recycler know that the extinguisher is empty. Remove any plastic pieces. You can now send the empty container to a metals recycler.
- You can dispose of the collected agent in the landfill, as it is not considered toxic.

If it's empty:

- Squeeze the Lever Above the Handle: This will ensure that all contents are discharged.
- Remove the Head so that the recycler knows the container is empty.
- Recycle the Steel Body: Once the head is removed, the container can be sent to a metals recycler.
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In both cases, make sure to follow any instructions on the fire extinguisher. Once your old extinguisher is disposed, make sure you replace it with a new fire extinguisher immediately.

Where to send <u>empty</u> containers with valves removed for recycling:

<u>In Alaska:</u>

Schnitzer Steel Alaska

9705 King Street Anchorage, AK 99515 US Tel. 907-349-4833 <u>www.schnitzersteel.com</u> * They pay about 4c/lb for steel and from 4-50c/lb for aluminum, depending on how ferrous it is. WOTC Scrap Metal Recycling 7848 Hartzell Road Anchorage, AK 99507 (907) 344-1133 * Will accept empty containers but will not pay for them

In Washington:

West Seattle Recycling

3881 16th Ave SW Seattle, WA 98106 Tel. 206-935-4255 <u>http://www.westseattlerecycling.com/</u> * They pay 6c/lb for steel, if you have more than 500 lbs.

Skagit River Steel Recycling

1265 S. Anacortes Street Burlington, WA 98223 1-800-869-7097 <u>http://skagitriversteel.com</u>

* The valves have to be removed and another hole punched in container before they can be accepted. They pay ~11c/lb for steel.

Calbag Metals

1602 Marine View Drive Tacoma, WA 98422 Tel. 800-801-5732 <u>www.calbag.com/</u> * They pay about 8c/lb for steel

Seattle Iron & Metals Corporation

601 South Myrtle Street Seattle, Washington 98108 Tel. 206-682-0040 http://www.seairon.com/

* They pay 10c/lb for steel, if you have more than 500 lbs.

Independent Metals Recycling

747 S. Monroe Street Seattle, WA 98108 Tel. 206-763-9033 <u>http://www.independentmetals.com/</u> * They pay ~12c/ lb for steel 250-300 a ton

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Example of a Village recycling fire extinguishers

The Native Village of Deering is planning to backhaul stockpiled fire extinguishers in 2012. Contact Melanie Weyiouanna in the Environmental Department 907-363-2250 for information about how they dealt with their extinguishers and where they sent them.

Resources for backhauling

See our backhaul page for various backhaul resources and information. http://zendergroup.org/backhaul.html

In particular, if you are looking for regional entities to assist you with backhauling used extinguishers, go to this page for a list of contact information. <u>http://www.zendergroup.org/docs/regional_contacts.pdf</u>

If you are looking for funding for backhaul, see this document for grant/funding possibilities <u>http://www.zendergroup.org/docs/erecycling.pdf</u> Or our general funding page. <u>http://www.zendergroup.org/funding.html</u>

If you need further assistance or information about recycling fire extinguishers, contact Simone Sebalo at Zender Environmental Health and Research Group 907 277 2111 ssebalo@zendergroup.org