

Managing Special Wastes and Reuse Programs at Convenience Centers

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Outreach

Special Waste

- Summary of Programs
- Up and Downs
- BMP



Special Wastes

- **Automotive Fluids**
 - Used Motor Oil
 - Used Oil Filters
 - Used Antifreeze
- **Batteries**
 - Lead Acid
 - Dry Cell
- **Fluorescent Bulbs**
- **Mercury Thermostats**
- **Household Hazardous Waste**
- **Paint**
- **Pesticide Containers**
- **Vegetable Oil**
- **Oyster Shells**



Automotive Fluids

Used Motor Oil

- 95 County programs
- One third of programs collect at only one site
- Half programs collect at all sites
- Last report cycle - 810,000 gallons collected
- Of the programs that receive revenue, the average revenue is \$0.72/gallon, with highest revenue reported at \$1.25/gal



Automotive Fluids

Used Oil Filters

- 84 County programs reported 2010
- 88 counties reported in 2011
- One quarter of programs collect at one site
- Half programs collect at all sites
- 2010 report cycle 8762 filters, 709 barrels and 38 tons reported
- Most oil filter programs use 55 gal drums
- Most programs pay for service
- Average cost is \$46 per collection
- Drum covers reduce contamination and prevent rain-water issues



Automotive Fluids

Antifreeze

- 62 County programs
- Half programs collect at all sites
- 2010 report cycle 22,631 gallons
- Most programs serviced at no cost
- Average cost for programs with cost is \$0.59 per gallon
- No programs receive revenue



Automotive Fluids

BMPs

- Only have fluid collection attended sites
- Locks are encourage on containers
- Keep water from entering containers (provide cover or funnels)
- Use secondary containment (dike or double wall)
- Use larger collection containers to reduce cost
- Using the same vendor for oil, filters and antifreeze will make your life easier



Lead Acid Batteries

- 84 County programs
- 34,586 batteries reported FY 2010
- 2009 to 2010 programs increased, batteries decreased
- Lead acid batteries can be a source of revenue
- Store in sight of attendant to protect from scavenging
- Lead acid batteries may be accepted by electronics vendors



Dry Cell Batteries

- New data point on annual report
- Store in dry area
- Dry cell collection can be in
 - 5 gal. buckets or 55 gal. drums
- Rechargeable batteries can be recycled for free through RBRC: www.call2recycle.org
- Difficult to collect rechargeable and non-rechargeable separately without close oversight
- May need to tape ends, use community service workers
- Batteries can be recycled using State Convenience Contract 926B



<http://www.doa.state.nc.us/PandC/926b.pdf>

Fluorescent Bulbs

- 20 Counties reported operating bulb collection programs separate from HHW events
- Majority only collect CFL
- New data point on annual report
- Convenience Contract 926B
 - Tubes – 4 cents per foot
 - CFLs & U Shape – 24 cents



<http://www.doa.state.nc.us/PandC/926b.pdf>

Fluorescent Bulbs

- As use of CFLs grows, need for recycling service will grow
- Can partner with local electric Co-Op
- Can refer citizens to other options (place of purchase or mail back)
- Collection containers provided by vendors
- Do not set up collection at unattended site



Mercury Thermostat Recycling

- State Convenience Contract 926B
 - Cost \$3.50 per pound
 - Manage thermostats same as lights
- Thermostat Recycling Corporation
 - Cost \$25.00 per container
 - Container holds 100 thermostats
- <http://www.thermostat-recycle.org/>



Recycle
mercury thermostats,
here.

We are proud to partner with the
 **Thermostat Recycling**
CORPORATION

an industry-funded non-profit

www.thermostat-recycle.org

Household Hazardous Waste

- Most Counties do not accept HHW at their convenience sites.
- As demand grows, programs are expanding
- Mecklenburg accepts HHW at four sites, staffed by HHW vendor
- If accepted at convenience centers, should be staffed by HHW contractor or HAZWOPER trained staff
- Some communities accept limited types of HHW (example paint exchange/reuse)
- High cost to manage

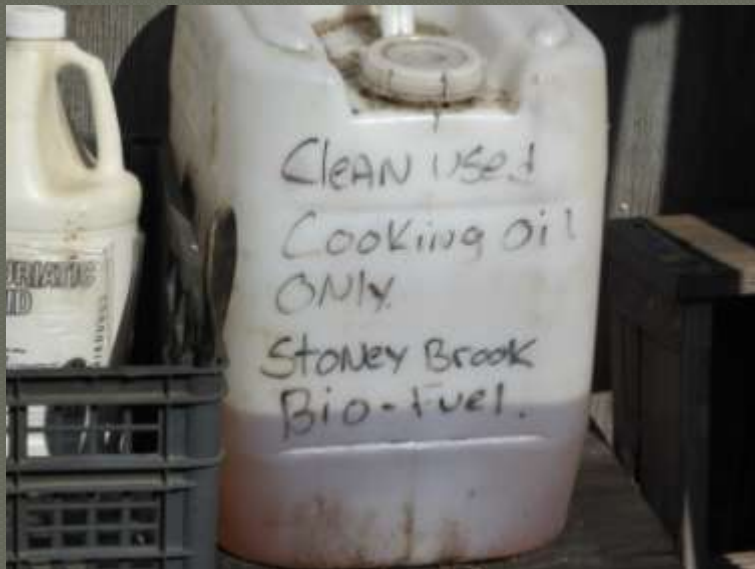
Pesticide Containers

- 32 Counties collect containers
- NCDA sponsors – Link to funding requirements <http://www.ncagr.gov/SPCAP/pesticides/recyclinggrants.pdf>
- Provide service to local AG base
- Easy and free to operate



Used Cooking Oil

- Demand for waste fats and greases as fuel resulting in recycling program
- Serviced by bio-fuel or rendering vendors
- Must be kept separate from used motor oil
- Vendors typically provide collection containers
- Revenue Opportunity: Wake Co. earns \$0.25/gallon



Oyster Shells

- Service provided by NCDENR – Division of Marine Fisheries
- Containers provided
- No cost to operate
- <http://portal.ncdenr.org/web/mf/oyster-shell-recycling-program>



Help Finding Vendors

- Ask neighboring communities
- Call DEAO or NCSWANA
- P2Assist List Serve sustainablenc@gmail.com
- Contacts can be found in Markets Directory
- <http://www.p2pays.org/dmrm/start.aspx>

NORTH CAROLINA Recycling Markets Directory

[R2AC Home](#) [Search Directory](#) [Get Listed](#) [N.C. WasteTrader](#) [Links](#)

The following companies accept "Oil Filters" from N.C.:

Company Name	City	County	State	Phone Number
ZTC Hazardous Recovery & Reduction Company, LLC	Winston-Salem	Forsyth	NC	(336) 784-4300
A & D Environmental	Burlington	Namance	NC	(336) 229-0058
Advanced Recycling	Lenoirburg	Scotland	NC	(910) 278-9593
Clean Green	Durham	Durham	NC	(919) 596-3500
D.J. Griffin Wastking Co., Inc.	Greensboro	Gulford	NC	(336) 855-7030
EEO/EO, Inc.	Greensboro		NC	(336) 855-7925
EcoTech, Inc.	Denver		NC	(704) 489-8703
Environmental Recycling Alternatives, Inc.	Banner Elk	Watauga	NC	(828) 983-8735
EPAS of VT, Inc. (Carolina Div.)	Saloga	Wake	NC	(919) 852-3585
ECC Environmental	Concord	Cabarrus	NC	(800) 535-9894
Ethel Specialty, Inc.	Aufryville	Sampson	NC	(910) 587-5474
Geco, Inc.	Ashboro	Randolph	NC	(336) 683-0911
Great Resource Recovery, Inc.	Harleyville		SC	(800) 786-0477
H&C Mat Transportation & Disposal, Inc.	Charlotte	Mecklenburg	NC	(704) 332-5600
Heritage Environmental Services, Inc.	Charlotte	Mecklenburg	NC	(704) 391-4500
Heritage-Crystal Clean, Inc.	Charlotte	Mecklenburg	NC	(704) 376-9636
Heritage-Crystal Clean, Inc.	Saloga	Wake	NC	(919) 323-0357
Hobbs Contracting	Charlottesville		VA	(800) 222-4530
Hobbs Environmental Services Inc.	Waynesville	Haywood	NC	(423) 699-7300
MCF Systems	Decatur		GA	(800) 828-3240

Suggestions for Special Wastes

- Establish programs that can be a revenue source (oil, lead-acid batteries)
- Many special waste programs can be started at little to no cost
- Keep containers well labeled
- Place all special waste collection in site of an attendant
- When you do not offer a service provide information to citizens on alternatives
- You should provide a program for all banned items

Reuse Opportunities at Convenience Centers

● Low Cost Diversion

- Charitable drop-boxes
- Textiles
- “Swap Shops” or “Salvage Sheds”
 - Summary
 - Ups and Downs
 - BMPs



Charitable/Textile Drop Boxes

- Simple and easy to operate
- No infrastructure cost, small foot print
- Can be placed at all sites
- Vendor provides collection service (free)
- Some communities now earning revenue



Swap Shops / Salvage Sheds

- 27 reported in 2009
- 24 County programs in 2010
- 23 County programs in 2011
- Range from one shop to sixteen shops per county



Swap Shops / Salvage Sheds

Options

- Can be open to public or a collection point for local charity (Goodwill or Salvation Army)
- Can accept all materials or select items
- Can be used to collect working electronics
- Can be used to operate paint exchange program (15 in 2011)



Swap Shops / Salvage Sheds

○ Ups and Downs

- Easy way to divert materials
- No cost diversion once infrastructure is in place
- Helps the community, provides reuse option for useable but unwanted goods
- Only postponing disposal
- Can become a mess
- Can cause a mix signal with scavenging
- Can cause traffic problems when pickers are allowed to loiter



Swap Shops / Salvage Sheds

○ BMP

- Place swap shops at attended sites
- Place shops where attendants can see in them
- Keep area clean
- Use plenty of signage
- Place bulletin board to promote other services



Questions

- Contact us for additional program information

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