

RECHARGING THE PLANET.  
RECYCLING YOUR BATTERIES.™



*Collecting and Recycling Universal  
Waste Rechargeable Batteries  
through Call2Recycle*

Tim Warren, Account Mgr. Call2Recycle

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## Why Focus Time and Attention on Recovery of Batteries?

- Universal Waste
- Reclamation Potential of toxic and non-toxic metals
- Strong Domestic and International Markets
- Recycling/Sustainability/Zero Waste and Environmental Compliance
- Growth of Rechargeable Batteries on campus due to
  - Cordless/Portable Society and Business



## Rechargeable batteries are a growing component of your e-waste



## Who is Call2Recycle®?

- Founded in 1996 by Battery Manufacturers: operated by the non-profit, industry-sponsored Rechargeable Battery Recycling Corporation (RBRC)
- **First product stewardship/EPR program in North America**
- Available in continental U.S. and Canada
-  First battery program to be recognized as an e-Steward by Basel Action Network (BAN)
- ***Free to consumers, retailers, corporations, public agencies and municipalities***; 100% funded by manufacturers
- Since Inception, Nearly 70 Million Pounds of Batteries and Cell Phones Diverted From Landfills
- **Over 600 colleges and universities in U.S. and Canada are enrolled in Call2Recycle**



## How is Call2Recycle Funded?



- EPR/Product Stewardship program of rechargeable battery manufacturers and consumer products companies
- OEMs pay fee on all battery sales based on voltage
- CPC's license recycling seal
  - 350 companies: Black and Decker, Apple, HP, Dell, Sunbeam, Makita, Coleman, Samsung, Canon, Philips, Toshiba, Motorola, 3M, Texas Instruments, Eastman Kodak, etc.



## What can be recycled with Call2Recycle?

- Nickel Cadmium, Nickel Metal Hydride, Nickel Zinc, Lithium Ion, Small Sealed Lead Batteries
- Weight limit of 11 lbs. or less
- Used Cell Phones
- No primary (non-rechargeable) batteries, wet cell batteries

Examples of Electronics that are powered by Rechargeable Batteries

Two Way Radios  
 Laptop computers  
 Hand Held Scanners  
 Exit signage  
 Emergency lighting  
 Medical Equipment  
 Security/Fire Alarm Systems

Cell and cordless phones  
 Portable Power Tools  
 Field Monitoring/Research Equipment  
 Backup batteries (UPS)  
 Instrumentation

RBRC Battery Recycling Seals on portable rechargeable batteries



# How to Identify a Rechargeable Battery?

## Look for the Recycling Seal



RBRC Battery Recycling Seals on portable rechargeable batteries



**If the electronic device recharges by being plugged into a wall socket, or solar powered, its rechargeable. If it has a backup battery for loss of electricity, the battery is rechargeable**



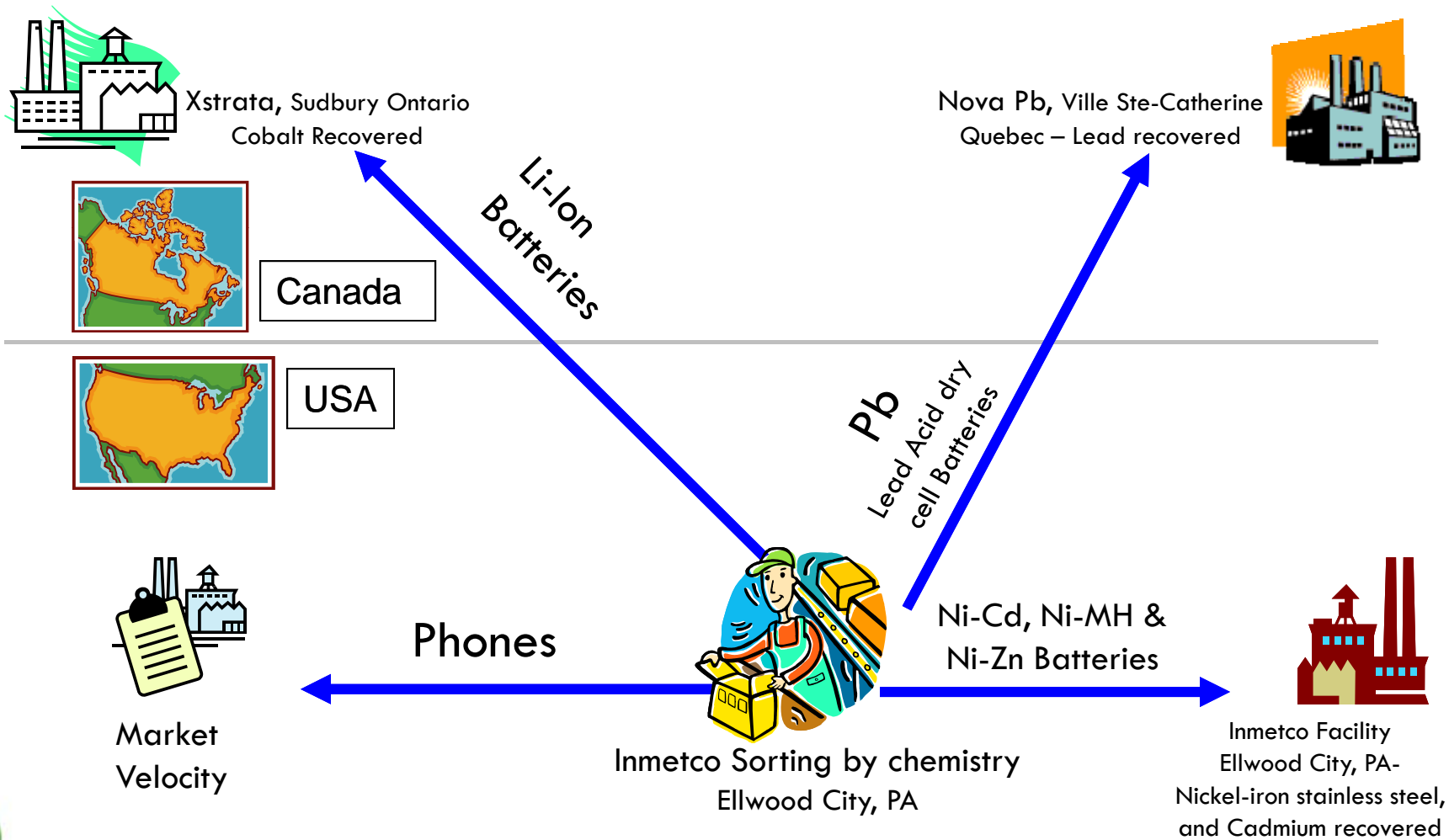
## How are batteries recycled?



- RBRC uses state of the art, fully permitted metals smelter- Inmetco (subsidiary of International Nickel Company)
- RBRC pays Inmetco to log in each shipment via RBRC site ID and record battery weights/chemistry
- All battery components are recycled: nickel, iron, stainless steel, cadmium, lead, copper, cobalt, and other metals.
- 50% energy savings in metals recovery over metal production from virgin ore, plus reductions in CO<sub>2</sub>, NO<sub>x</sub> and SO<sub>2</sub>
- Batteries are transported from generator to recycler directly via UPS (box) or common carrier (bulk) under universal waste classification



# Call2Recycle Recycling Process Physical Flow



- **RBRC Program is in full compliance with all local, state and federal environmental regulations**
- **RBRC's program is designed, approved and funded by the manufacturers of rechargeable batteries**
- **RBRC has \$5,000,000 environmental impairment/pollution liability insurance coverage, and \$2,000,000 policy for transport coverage**
- **RBRC's processor, Inmetco, has substantial additional environmental insurance coverage for battery processing/recycling.**
- **RBRC program has safely recycled hundreds of millions of batteries since our inception**
- **Certificates of Recycling can be provided**
- **Data on all box or bulk shipments, battery weights, battery weights by chemistry is recorded and available to our customers**
- **Environmental Audit/Due Diligence of program/processor is welcomed**



## How Does Call2Recycle Work for My Location?

- **Enroll your location or locations:**
  - on line [www.call2recycle.org](http://www.call2recycle.org)
  - through customer service ([customerservice@call2recycle.org](mailto:customerservice@call2recycle.org) or 877-723-1297 x250)
- **Receive site ID number for each location enrolled. Boxes are barcoded to your site ID.**
- **Receive turnkey kit (1,2, 4, 8 or more boxes) via UPS Ground,** including safety and shipping instructions, sleeve of plastic bags, and recycling poster
- **Bag each battery** (or cover terminal with electrical tape), fill box, seal up
- **Hand full box to your UPS driver or take to UPS store** (no charge to ship)
- **Replenishment boxes shipped automatically**
- **Data available** on all shipments for recycling, environmental, or sustainability reporting.



## DOT battery regulatory issues

In March 2010, U.S. Department of Transportation issued a Special Permit to Call2Recycle to facilitate the safe recycling of batteries. Call2Recycle's new collection containers have been marked with the following required verbiage:

- *The Call2Recycle program operates in compliance with the U.S. Department of Transportation safety processes to ensure the safe collection, transport and recycling of batteries.*
- *Each collection box must be packed as required by US DOT Special Permit DOT-SP 14849, and has been marked with "Used Batteries for Recycling: May Contain Lithium (ion) and Nonspillable Batteries. FOR HIGHWAY OR VESSEL TRANSPORT ONLY - FORBIDDEN FOR TRANSPORTATION BY AIRCRAFT."*
- *In case of emergency, you may call Call2Recycle's 24 hour INFOTRAC® response line at 1-800-535-5053.*
- *See Call2Recycle website for DOT special permit letter from DOT*



# Bulk Shipment Program

- Ship as universal waste, Common Carrier using Bill of Lading (Class 60, NMFC#60700)
- “Used rechargeable batteries or cells, electric, dry cell for recycling”  
• Pb batteries require “non-spillable”; lithium ion special labeling
- Generator can ship in DOT approved drums or other containers (provided by generator)
- Requires separation of batteries by chemistry
- Requires bagging or taping of all batteries regardless of chemistry or container
- Labeling instructions must be carefully followed (instructions on our website)
- RBRC will reimburse freight cost to ship via common carrier (copy of BOL and invoice), or as Class 9 Hazardous Material with generator’s carrier
- Recommended for generators with >300 lbs. of rechargeable batteries at one location



## Lithium Ion



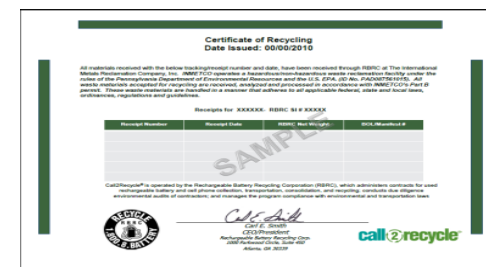
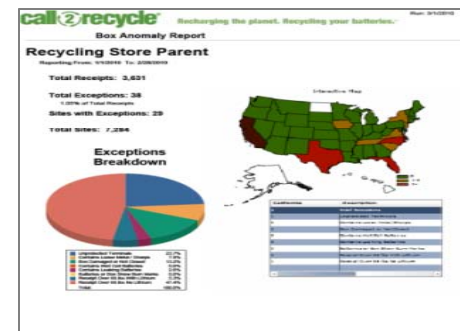
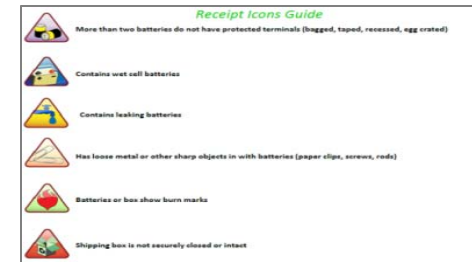
- Can be shipped as Class 9 Hazardous Material or
- Can be shipped as universal waste via common carrier, provided batteries are properly taped/bagged and labeled and packaged in containers weighing less than 66 lbs each. Multiple containers(<66 lbs) can be shipped in pallet loads.



# Training & Program Support

To ensure the safe collection and transportation of batteries, Call2Recycle has implemented numerous processes.

- Detailed summary reports are available showing materials received by collection sites
- Certificates of recycling are available upon request
- Box Anomaly Reports: using “safety” icons, reports are available that details any “non-compliant” box received at the sorting/recycling facility.
- Dedicated Safety & Compliance Manager
- Training materials are also available to support participant efforts, including safety training video, 5-step safety poster, detailed safety & shipping guidelines (sent with each shipment)



Site Summary Report

Delmar College Central Recvg

Call2Recycle ID: 126134  
Enrolled: August 25, 2009

Store ID:  
101 Baldwin Blvd  
Corpus Christi, TX 78404-3805

Batteries / Cell Phones Collected From 1/1/2009 To 9/10/2010

Rechargeable Batteries

	Weight (lbs)
Nickel Cadmium (Ni-Cd)	7
Lithium Ion (Li-Ion)	54
Nickel Metal Hydride (Ni-MH)	1
Small Sealed Lead Acid (SSLA/Pb)	318
<b>Total:</b>	<b>380</b>

Non-Rechargeable Batteries / Cell Phones

	Weight (lbs)
<b>Total:</b>	<b>0</b>



Fully Charged!

You Last Sent a Box to Call2Recycle On August 25, 2010. (17 Days Ago)

For the Reporting Period You Have:

Sent in **11** Boxes

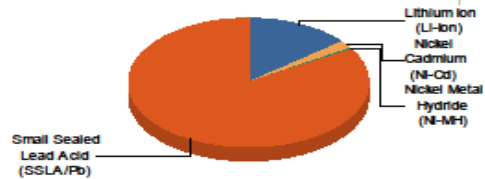
Collected a Total of **380 lbs**

Returned **0** Cell Phones

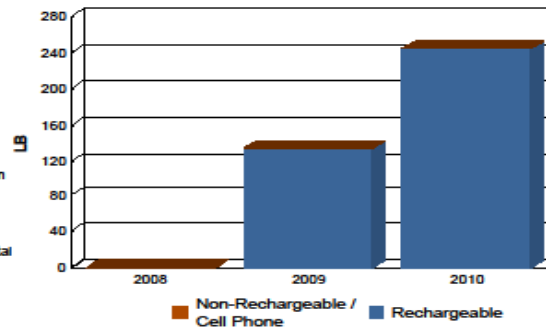
**Fully Charged** - You last recycled with Call2Recycle within 6 months  
**Time To Recharge** - You last recycled with Call2Recycle between 6 months and 1 year ago  
**Drained** - You last recycled with Call2Recycle more than 1 year ago

Collection Breakdown

Weights in lbs



3 Year Trend



Call2Recycle Account Manager: Tim Warren  
twarren@call2recycle.org



Battery Type	Weight (lbs)	Percentage
Lithium Ion (Li-Ion)	54	14.2%
Nickel Cadmium (Ni-Cd)	7	1.8%
Nickel Metal Hydride (Ni-MH)	1	0.3%
Small Sealed Lead Acid (SSLA/Pb)	318	83.7%
<b>Total</b>	<b>380</b>	<b>100.0%</b>

Site Summary Report

University of Missouri EHS

Call2Recycle ID: 77197  
Enrolled: September 28, 2005

Store ID:  
1710 E Campus Loop  
Columbia, MO 65211

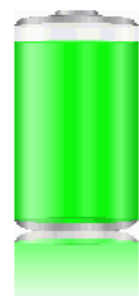
Batteries / Cell Phones Collected From 1/1/2008 To 9/9/2010

Rechargeable Batteries

	Weight (lbs)
Nickel Cadmium (Ni-Cd)	288
Lithium Ion (Li-Ion)	144
Nickel Metal Hydride (Ni-MH)	324
Small Sealed Lead Acid (SSLA/Pb)	745
<b>Total:</b>	<b>1,501</b>

Non-Rechargeable Batteries / Cell Phones

	Weight (lbs)
Lithium	3
<b>Total:</b>	<b>3</b>



Fully Charged!

You Last Sent a Box to Call2Recycle On May 3, 2010.  
(131 Days Ago)

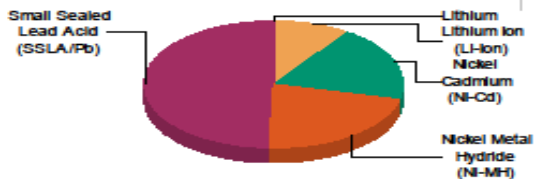
For the Reporting Period You Have:

- Sent in **38** Boxes
- Collected a Total of **1,504 lbs**
- Returned **0** Cell Phones

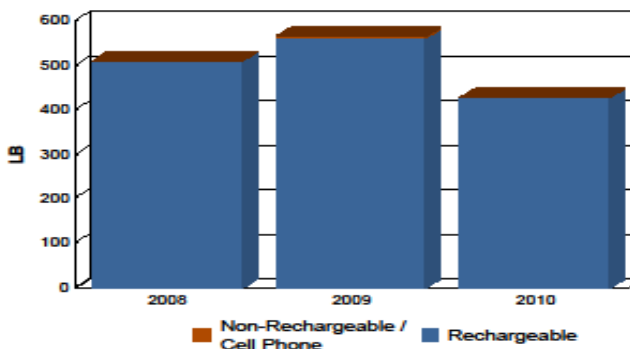
**Fully Charged** - You last recycled with Call2Recycle within 6 months  
**Time To Recharge** - You last recycled with Call2Recycle between 6 months and 1 year ago  
**Drained** - You last recycled with Call2Recycle more than 1 year ago

Collection Breakdown

Weights in lbs



3 Year Trend



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twarren@call2recycle.org





**Make a positive impact.  
Recycle your rechargeable batteries.**

Call2Recycle® is a free program that provides recyclers with an easy, eco-friendly way to dispose of their used batteries and cell phones. Sign up today to make your community a more sustainable one and join others who have helped Call2Recycle divert more than 50 million pounds of batteries from the solid waste stream.

Sign up and start recycling at [call2recycle.org](http://call2recycle.org)



Recharging the planet. Recycling your batteries.™



You can  
**RECYCLE** your  
rechargeable **BATTERIES** and  
**CELL PHONES** here!

Ask for details  
at this location.

Recharging the planet. Recycling your batteries.™

[call2recycle.org](http://call2recycle.org)

4407-02R

In some states it is illegal to put portable rechargeable batteries and cell phones in the trash.  
 \* States with Ni-Cd/Fe battery disposal laws: PA, IA, ME, NY, NH, VT  
 \* States with disposable state covering all types of used batteries: AZ, AR, CA, CT, FL, IL, IN, MI, MN, MO, MS, NC, ND, NE, NV, WA, WI, WY  
 \* States with disposal ban covering all types of used batteries: AL, AR, CA, CT, FL, IL, IN, MI, MN, MO, MS, NC, ND, NE, NV, WA, WI, WY  
 \* State and city with disposal ban covering all types of rechargeable batteries: CA, city of New York  
 \* States with cell phone disposal ban: CA, ME, NY

## Campus Discussion Points



- Depending on how comprehensive your program to recover and recycle rechargeable batteries, you can set up one location or multiple locations to collect batteries
- Set up “parent” ID number for campus, and “child” ID numbers for departments to receive their own boxes. A decentralized program works well for some campuses, and data is tracked for all locations under the Parent ID. Replenishment boxes ship automatically to your contacts in departments recycling their own batteries
- Residence halls/residence life can also participate to provide recycling for students( batteries from smart phones/ laptop and other small electronics). Program needs to be housed at the front desk or manned locations.
- Battery collection drives can also take place for environmental events (Earth Day, American Recycles Day), end of semester reuse and recycling events for dorm closedowns.



## Why Call2Recycle?

- **Experienced, Compliant, Responsible, Convenient,**
- Largest, Most Experienced, and Most Environmentally recognized battery recycling program in the nation
- **No Cost:** Entire program is paid for by battery industry as long standing product stewardship commitment
- Convenient and Flexible: Pre-paid, pre-addressed and bar-coded, universal waste and DOT compliant collection boxes; no cost bulk shipments, campus can use both
- Automatic Replenishment of boxes
- Reporting Data (by enrolled location, battery weights and battery chemistry)
- Environmental Compliance: All batteries processed in N.A.; thermal recycling of batteries for metals recovery, no batteries shipped overseas, nothing landfilled
- Experience: 30,000 + entities enrolled with RBRC, 70 million lbs. of used rechargeable batteries collected and recycled since our organization's inception
- Designated as an E-Steward by BAN (Basel Action Network) in 2009



**Battery Recycling, like all recycling, helps our Planet.**

**Make Battery Recycling with Call2Recycle an integral part of your Sustainability Program!!!**



## Questions and Discussion?

### For more information on Call2Recycle

Tim Warren

Account Manager, Central Region

– [twarren@call2recycle.org](mailto:twarren@call2recycle.org)

– (678) 218-4579

– (636) 579-9870 (cell)

[www.call2recycle.org](http://www.call2recycle.org)

