

RECHARGING THE PLANET.
RECYCLING YOUR BATTERIES.™



Collecting and Transporting Used Rechargeable Batteries: The North American Experience

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Summary

- Industry Collection and Recycling Efforts in North America
- Challenges and Opportunities
- Efforts Underway to Ensure Safe Handling and Transportation
- Efforts to Work with Government Officials to Find Mutually Beneficial Approaches
- Proposed Approaches
- Questions and Discussion



**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

Recharging the planet. Recycling your batteries.™

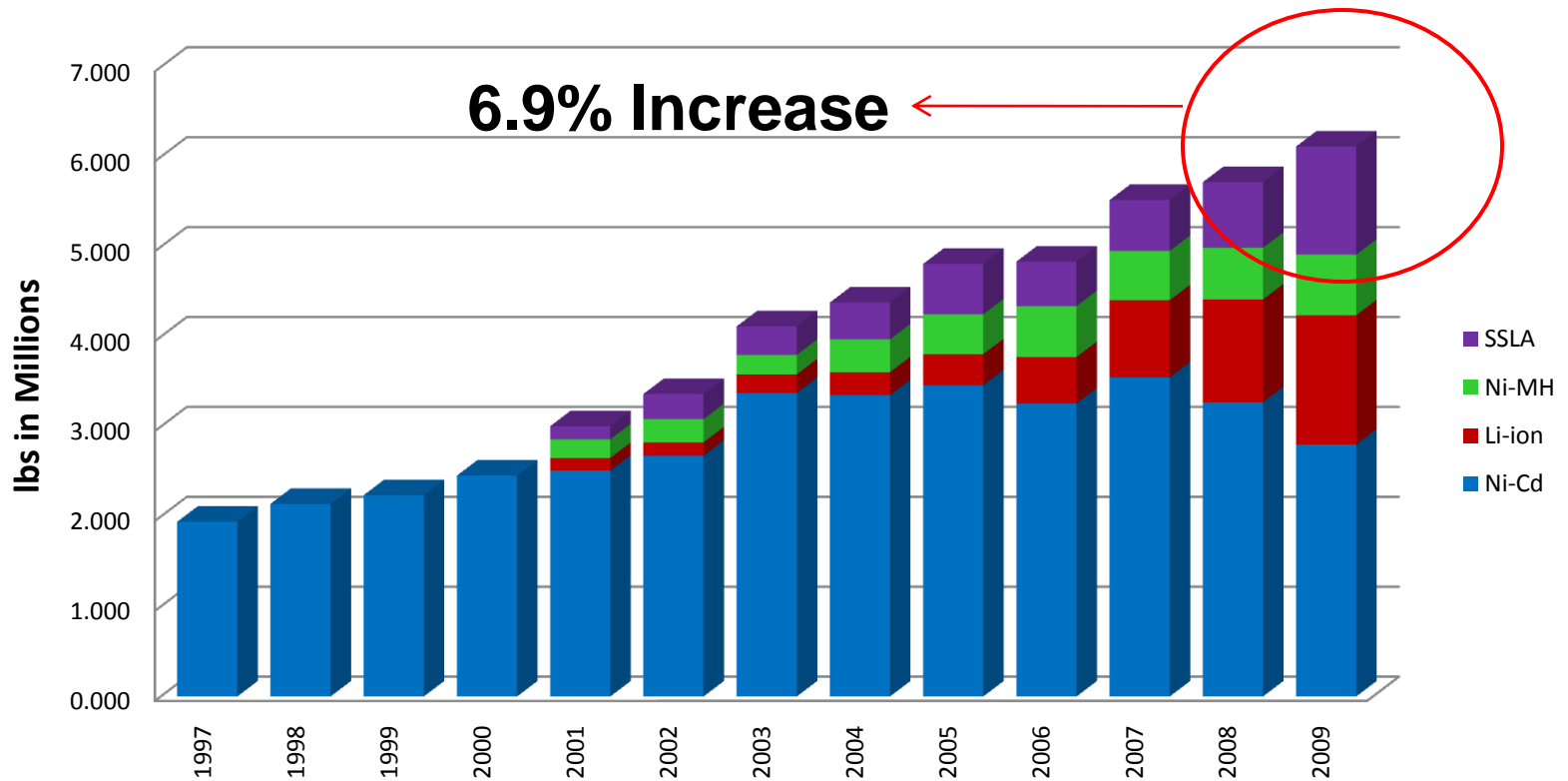


What is Call2Recycle®?

- Battery collection program operated by the industry-sponsored Rechargeable Battery Recycling Corporation (RBRC)
- Founded in 1994 to deal with state efforts to regulate / ban NiCd batteries
- First and most successful product stewardship / EPR program in North America
- Handles both rechargeable and primary (British Columbia/Ontario) batteries
- Free to consumers, retailers and participants; 100% funded by manufacturers
- 60 Million Pounds of Batteries and Cell Phones Collected Since Inception



Call2Recycle® 2009 Collections



Over 6.2 million pounds collected in 2009



Challenges (Opportunities)

- A “Quilt” of Regulations rather than a “Blanket”
- A Voluntary Program Dependent on the Goodwill of Young, Inexperienced Hourly Retail Workers
- Tying Potential Transport Hazards to the Those Most Responsible for the Risks



**Our Collection Efforts Have Been Harmed by
Inconsistent Guidance, Enforcement and Regulation**



The Impact of the “Quilt”

- 4 Canadian Provinces – Ontario, British Columbia, Manitoba & Quebec – have enacted mandatory all battery recycling regulations



- Details vary significantly: Definition of a “battery”, who is obligated to finance, what the performance targets are, who is the “producer” or “obligated steward”, embedded batteries
- Transport Canada states that Alkaline Batteries are not Hazardous; Environment Canada says that they have to be Shipped under UN 3028



In the US and Canada, our collections have been heavily focused on the goodwill and active support of retailers:



U.S. Department of Transportation Investigation into Battery Recycling Programs



Maintaining Momentum in an Uncertain Market

“Warning letters” from the U.S. Department of Transportation, Office of Hazardous Materials Enforcement Eastern Region were sent to hundreds of collection sites, threatening in part:

“Sections 5123 and 5124 of Title 49, United States Code, provide for civil and criminal penalties for any violation of the HMR. After a finding that a violation of the HMR has occurred, the Department of Transportation may assess civil penalties, issue an order directing compliance, or both. In addition, court action may be initiated for the purpose of imposing criminal fines or obtaining an injunction...”



Three Risk Management Strategies...

Strategy One: Collection Management



Three Risk Management Strategies...

Strategy Two: Report & Infrastructure

frmRecEntry

RBRC Battery Receipts

Your receipt count this session: 0

Site ID:

Site Label Info (if no Site ID):

Total Weight:

Cell Phone Count:

Container Code:

Ni-Cd:

Cell Phone Weight:

Merc.:

Li-Ion:

Cell Phone Accessories:

Zn-C.:

Ni-MH:

Wet Cell Ni-Cd.:

Pb:

Recycling Container Tare Weight Will Be Removed

Lead Carbonate:

Alk:

Sorting Container Tare Weight Will Be Removed

Nickel Iron:







Lith:

Silver Oxide:

Summed Weight:

Zinc Carbon (mercury):

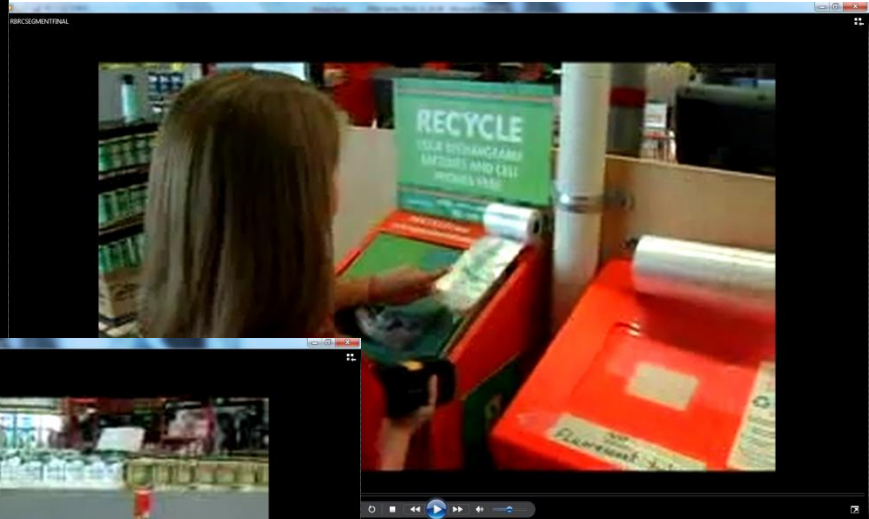
Other:

1.  2.  3.  4.  5.  6. 



Three Risk Management Strategies...

Strategy Three: Education, Education, Education



U.S. DOT Requirements for Shipping Lithium Batteries “for Disposal or Recycling”

- 49 CFR 173.185(d)
- No distinction between new and used
- “Cells and batteries offered for disposal or recycling” by motor vehicle to permitted storage facility, disposal site or for purposes of recycling
- Excepted from UN specification packaging requirements
- Excepted from UN testing requirements and design requirements (same requirements listed in SP 230)
- Protect against short circuits
- Pack in strong outer packaging



Staying Ahead of Risk

U.S. DOT / RBRC SISP Agreement and Special Permit

- RBRC signed agreement with U.S. Department of Transportation (DOT) known as Systems Integrity Safety Program (SISP)
- Cooperative agreement between DOT and RBRC (January 2009 – March 2010)
- Inspections at battery collection sites and recyclers to identify root causes of safety problems
- Implement DOT recommendations for compliance and safety



RBRC Special Permit from U.S. Department of Transportation

- Authorizes RBRC to “manufacture, mark, sale and use” fiberboard packagings (not UN spec packaging) for the transportation of used batteries shipped for disposal or recycling
- Batteries covered include:
 - Lithium metal with up to 5 g lithium per battery
 - Lithium ion up to 300 Watt-hours
 - Nonspillable lead weighing up to 5 kg each
 - Dry cell (“household-type”)



RBRC Special Permit from U.S. Department of Transportation

- Packaging must be able to withstand 1.2 M drop test
- Packaging may not exceed 30 kg
- Lithium batteries exempt from UN testing requirements
- No shipping papers required
- Alternative markings for boxes instead of lithium battery handling/caution label



RBRC Special Permit from U.S. Department of Transportation

- Package marking requirements:
 - **“Used Batteries for Recycling: May Contain Lithium (ion) and Nonspillable Batteries. FOR HIGHWAY OR VESSEL TRANSPORT ONLY – FORBIDDEN FOR TRANSPORTATION BY AIRCRAFT”** (marking must be at least 6 mm (.25 inch) in height)
 - Emergency response telephone number accessible 24 hr/day
 - Special permit number
- Modes of transportation authorized
 - Motor vehicle and cargo vessel (cargo vessel authorized only to and from Alaska and Hawaii)



Our Perspective...

- Strive for Consistency within Countries and Across Borders – it Doesn't Exist Now
- Acknowledge the trade-off between Collecting and Recycling Batteries and Attaining 100% Compliance with Handling and Transportation Guidance
- Recognize that Transport Limitations will Have Significant Impact on Commerce and Recycling



QUESTIONS?

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