



Batteries Not Included Redux

Posted by **Usman Valiante** at 10:13 PM

In late 1998 I wrote "Batteries Not Included" (see the extended entry below) for SW&R. The article raised some questions about the Rechargeable Battery Recycling Corporation's (RBRC) fairly new rechargeable battery recycling program and its intentions with regard to regulatory changes it was seeking from the Ontario Government. What struck me most at the time was evidence I gleaned from the RBRC's public consultation filings with the Ontario MOE - in effect if it had gotten the policy changes it sought, landfill was likely to become the RBRC's primary method for "recycling" batteries recovered under its program.

Almost nine years later on October 31st 2007 CBC Marketplace ran a piece on the current efficacy of the RBRC program. Largely prompted by an Environment Canada report (prepared by the venerable Maria Kelleher - MWIN's Waste Management Professional of The Year 2007) Marketplace asked all the right questions.

It is interesting to note that notwithstanding a recovery and recycling rate of less than 10%, rechargeable batteries are not included in Phase 1 of Ontario's Municipal Household Special Waste (MHSW) program (single use dry cell batteries are). In a May 18th 2007 letter from then Minister of Environment, The Hon. Laurel Broten to the RBRC the Minister states, **"By all accounts, RBRC's programs have been a great success, and we certainly appreciate your contributions to our waste diversion efforts in Ontario."**

Click here to watch CBC Marketplace's [Batteries Not Included](#)

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Batteries Not Included

Short circuiting rechargeable Ni-Cd policy

By Usman Valiante

According to the US EPA, nickel-cadmium (Ni-Cd) rechargeable batteries comprise less than 0.1 per cent of municipal solid waste by weight but account for 75 per cent of its cadmium content. With increasing consumption of rechargeable Ni-Cd batteries, governments worldwide have either enacted, or are in the process of enacting, public policy measures to address the end-of-life stage of the battery lifecycle.

For example, Sweden has proposed a complete ban on the sale of Ni-Cd batteries. Belgium is targeting batteries not recycled at a rate of at least 75 per cent with a 33 cent tax. Fifteen American states have enacted some form of legislation to address cadmium-containing batteries. With other US states and Canadian provinces planning to regulate consumer batteries, industry has launched a pre-emptive strike by developing its own recycling initiative for Ni-Cd batteries.

Established in the US early in 1996, the Rechargeable Battery Recycling Corporation (RBRC) announced its launch into Ontario in September 1997. Headquartered in Gainesville, Florida, the RBRC is the operating arm of the Portable Rechargeable Battery Association (PRBA). PRBA is an industry sponsored government relations organization largely tasked with manufacturing consent within state and federal environmental regulatory bodies regarding the issue of Ni-Cd battery waste management. Prior to establishing the RBRC, the PRBA operated Ni-Cd recycling initiatives for several years in the US (including comprehensive retail-to-return programs in Minnesota and New Jersey). In Canada, the PRBA's function is also fulfilled by the RBRC,

though its primary roles are to collect licensee funds from participating battery manufacturers and administer rechargeable Ni-Cd battery recycling programs.

In Ontario, the "Charge Up to Recycle!" program is at the forefront of the RBRC's government relations activities. To support its contention that its program is comprehensive, RBRC claims an impressive network of affiliated business partners including Canadian Tire, Radio Shack, Zellers, Black's Photography, Astral Photo Images, and Battery Plus. These retailers provide a potential of 2,000 return outlets for collecting batteries voluntarily returned by consumers.

However, if the results of the RBRC's activities in the United States over the last two and half years of full-scale operation (and 6 years of comprehensive pilot programs) are any indication of what lies in store for Ontario and other provinces, there's cause for concern.

Conflicting data

In the 1998 year-end edition of State Recycling Laws Update, chief RBRC lobbyist Robert Guyer claims that 22 per cent of small sealed rechargeable Ni-Cd batteries were recycled in the US in 1997--an increase of 15 per cent over 1996. Conflicting with this claim is a June 1997 US EPA report entitled, Extended Producer Responsibility: A New Principle for Product-Oriented Pollution Prevention in which the RBRC reported its 1996 recycling rate as 25 per cent.

In the same EPA report, the RBRC provided data indicating that in 1995 it had sent 1,352 tons of Ni-Cd batteries for recycling. Meanwhile, INMETCO--the sole North American recycler of Ni-Cd batteries and the only destination of RBRC-collected batteries--reported receiving 2,500 tons of batteries from all sources, including industrial and commercial (IC&I) waste generators. This is significant because prior to the RBRC initiative most American IC&I generators already had Ni-Cd battery management programs in place. (Disposing Ni-Cd batteries in municipal landfills is prohibited in most US states). With the advent of RBRC, batteries previously sent directly for recycling or proper disposal by IC&I generators are now largely sent to RBRC consolidation points where they are counted as RBRC diverted quantities.

What does this mean? Simply stated, it's quite likely that most of the 2,500 tons recycled by INMETCO originated from IC&I generators. Of the 1,352 tons of RBRC batteries diverted in 1995, it's likely that little was new diversion (e.g., consumer returns to retailers) and resulted instead from ICI generators channeling existing quantities through the RBRC system. Since the RBRC picks up all costs subsequent to shipping batteries to their consolidation point, any increases in recovered batteries in the near future will likely result from an increase in IC&I generators re-channeling their batteries to the RBRC system in order to lower their costs. (The recycling alone costs about US\$800 per ton.)

Consider Minnesota, where state legislation required that 90 per cent of sealed Ni-Cd batteries had to be recovered by September 20, 1995. In anticipation, the PRBA commenced a pilot program in 1992. Three years later, of the 80,984 pounds of Ni-Cd batteries received between October 1994 and September 1995, only 3.8 per cent came from retail stores while 77.4 per cent came from IC&I generators. (The remaining 18.9 per cent originated from municipal hazardous waste collection programs). Similarly, in 1995, 92 per cent of Ni-Cd batteries recovered in New Jersey (which has had return-to-retail since 1992) were from ICI sources while only 7 per cent originated from retailers.

Two years later, the national trend seems to have taken a sharp turn. According to Ralph Millard, Executive Vice-President of the RBRC, a full 23 per cent of Ni-Cd batteries recovered through the U.S. RBRC program in 1997 were recovered from retailers.

However, another indicator that RBRC is not expecting significant returns from retailers is the fact that across all of North America it has only four consolidation points to which battery collectors can ship waste batteries. These are: Phillip Services in Fort Erie, Ontario; Toxco/Kinsbursky in California; Wade Salvage in New Jersey; and US Filter and Recovery in Minnesota. (Batteries may also be shipped directly to the INMETCO recycling facility in Pennsylvania).

Why would the RBRC structure the program the way it has? It has a strong incentive. For relatively little effort, fairly reasonable diversion rates were perceived to be achieved in short order. Furthermore, while retailer shipping costs are fully subsidized by the RBRC, IC&I

generators must pay for shipment of their batteries to consolidation facilities (which then send batteries to INMETCO). Since the IC&I generators bear their own shipping costs to RBRC consolidation points, the costs of subsidizing retailers (who get virtually no returns) and municipalities (who get some) is relatively small; this keeps RBRC product manufacturer licensee fees low and retailers happy.

Battery powered spin

Another indicator that retailers (specifically grocery retailers--which have a significant share of the consumer battery market) will not figure prominently in accepting returns in Ontario is the fact that the RBRC shares its key Ontario government relations and marketing staff with the Food and Consumer Products Manufacturers of Canada (FCPMC). This group has a long history of opposing any producer responsibility models (including those for beverage containers and motor oil) that involve retailer participation.

The nature and effectiveness of RBRC's Ni-Cd battery recycling programs contrast strongly with another industry sponsored battery recycling initiative--the industry-wide manufacturer controlled network (MCN) for recycling automotive lead-acid batteries. Where Ni-Cd batteries are costly to recycle, automotive lead-acid batteries are a valuable commodity. As a result, lead-acid battery manufacturers initiate a \$5 deposit (about double the value of a used battery and is euphemistically referred to as a "fee") which is passed on to distributors and subsequently to retailers and consumers. Consumers buying a new battery at, say, Canadian Tire are not levied the \$5 "fee" if they leave their old battery behind. Similarly, Canadian Tire doesn't pay the battery distributor any fee if its order for new batteries is accompanied by an equivalent return shipment of used batteries.

This sensible system is employed widely in the United States. An audited report by Battery Council International (an industry association) states that the US achieved a 94.9 per cent average recycling rate for automotive lead-acid batteries over the 1990-95 period. Lead-acid battery recycling rates in Ontario are reported to be even higher--about 99 per cent annually.

Such a system could work well for Ni-Cd batteries and Ontario's government has created a framework for just such an industry-operated MCN via its proposed amendments to Regulation 347 (General Waste). Designed to essentially take government out of the waste management loop, the environment ministry's proposal would have provided a regulatory foundation for establishing systems for recovering a wide variety of wastes analogous (if not identical) to the system for recycling lead-acid automotive batteries.

In its response to Ontario's proposed MCN regulation the RBRC has suggested some subtle key word changes which suggest a deviation from the widely accepted intent of MCNs.

Specifically, RBRC suggests that it be designated as the "original product manufacturer" and act as a proxy for the true original product manufacturer (thereby assuming responsibility for final disposition of recovered batteries). As the proxy, the RBRC would bear the right to engage its agents (e.g., a waste management company) in activities other than product stewardship; in the RBRC's words, "or other contract or agreement for used product management services." Though not explicitly stated, this assertion likely includes landfill of recovered batteries.

This is especially plausible given that the RBRC provides the following rationale: "Depending on market conditions, spent product may be managed in various ways." Clearly, given the costs of consolidating and shipping Ni-Cd batteries for recycling to Pennsylvania (INMETCO) and that Ni-Cd batteries are not banned from landfill in Ontario, it's quite likely that Ni-Cds collected through RBRC's program will be sent to hazardous waste landfills. Such an effort would be consistent with the current practice of sending virtually all batteries collected through municipal hazardous waste programs to landfill. (Yes, you read correctly.)

In order to avoid take-back regulations, Sweden's battery industry initiated a voluntary Ni-Cd battery recycling program in 1993. Committed to recovering 90 per cent of Ni-Cd batteries sold by the summer of 1995, the program failed when it was unable to surpass a recovery rate of 35 per cent. This prompted the government to consider a ban on the sale of Ni-Cd batteries. (It's worth noting that RBRC's Ontario initiative cannot "fail" since it is not committed to any targets.)

While the RBRC's "Charge up to Recycle!" program makes all of the right noises, it lacks a meaningful approach to actually increase diversion, measure results or meet its design objectives, which were to "preserve natural resources and prevent Ni-Cd rechargeable batteries from entering the solid waste stream." With a little less resistance this program could be easily transformed from a high voltage government relations program into a high amp model of producer responsibility.