International/Regional/Local Trends, Challenges and Solutions

Application of Nova Scotia’s ROCAPS Deposit–Refund Waste Diversion System to the Caribbean Region

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Over the last number of years, the reduction and control of litter has established itself as a significant challenge to waste management entities throughout the Caribbean Region. While public education and awareness programs have made inroads in improving public attitudes about the indiscriminate disposal of waste items, circumstances unique to the Caribbean have led to a growth in the amount of litter discarded to the environment. Given the region’s growing dependence on revenues from the tourism sector, the need to effectively manage the littering issue is particularly critical.

Most notably, as bottlers seek to centralize production and lower transportation costs, the sale of beverages in non-refillable containers has increased dramatically over the last number of years, with PET (Polyethylene Terephthalate) bottles now being ubiquitous throughout the Caribbean region. As compared to refillable glass containers (which continue to be partially managed through an industry-led deposit refund system), non-refillables have no immediate value. As a result, they are now a common site along roadways, in public areas and on beaches.

Vehicles, and their component parts, have also presented a significant litter management challenge. Imported, low cost, reconditioned vehicles have been readily available throughout the Caribbean for the last decade. Often these vehicles have short life spans, resulting in an acute near-term waste management requirement. This need extends to other automotive items, most notably tires (the influx of used tires, with life spans measured in weeks, represents a particular problem) and lead-acid batteries.

In 1996, the Government of Nova Scotia established a private sector, non-profit organization, the Resource Recovery Fund Board (RRFB), to lead its efforts to achieve the aggressive diversion goals of a Provincial Waste/Resource Management Strategy. A key element of the RRFB’s original (and continuing) mandate was the development of a deposit/refund system for beverage containers. Founded on the “half-back” concept, the system led by the RRFB provides both an incentive for the controlled management of empty beverage containers and revenues for other activities supporting waste diversion. The logistics of the half-back program, including the automated payment of supporting vendors and contractors, are controlled by a proprietary web-based software package developed by the RRFB; Recovery Operations Collection and Payment System – ROCAPS2000™. Using a network of privately-operated Enviro-Depots™, empty beverage containers are tracked using ROCAPS from the point of consumer drop
off thorough to end market shipment. ROCAPS now handles three programs administered by RRFB Nova Scotia (beverage, tires and paint), with the capacity to process over one million field transactions annually. ROCAPS incorporates numerous reporting and monitoring features to confirm system integrity and efficiency. In fiscal 2003, approximately 233 million beverage containers were managed by the RRFB using ROCAPS.

Recent evaluations in jurisdictions throughout the Caribbean have identified the establishment of a deposit/refund system as a priority action to address the litter management issue. By combining the lessons learned in the development of a comprehensive deposit-refund system in Nova Scotia with the unique context of the Caribbean, this technical paper identifies a management program to tackle the Region’s growing litter management challenge.