

Halifax Regional Council

February 19, 2002

March 5, 2002

TO: Mayor Kelly and Members of Halifax Regional Council

SUBMITTED BY:

Brian T. Smith

Brian T. Smith, Director of Solid Waste Resources

DATE: February 12, 2002

SUBJECT: Household Hazardous Waste

INFORMATION REPORT

ORIGIN

Request from Councillor Streach for information on the services and costs of the household hazardous waste program from the February 5, 2002 Regional Council Session.

BACKGROUND

The Region provides a residential depot service for Household Hazardous Waste (HHW) through operation of its HHW Depot located at 50 Chain Lake Drive on scheduled Saturdays throughout the year. The HHW Depot received residential hazardous waste from approximately 6,500 vehicles on twenty-seven operating Saturdays during the 2001 calendar year. The Region's HHW Depot was constructed in the Spring of 1996 and first opened to residents in June 1996. The depot receives acceptable HHW including items such as household toilet and drain cleaners, bleaches, batteries, paints, solvents, flammable aerosols, oil, gasoline, household propane tanks, antifreeze and pesticides. The Region uses the program to help educate residents by emphasizing reducing generation of these types of waste, fully using any products purchased, non-hazardous alternatives and recycling or reuse of these materials.

DISCUSSION

HRM currently has a contract for the operation of the HHW Depot with Atlantic Industrial Services (formerly Philip Services). The fee structure is generally divided into personnel/labour costs, sites, environmental monitoring costs and materials management costs.

Personnel/Labour Costs

In terms of personnel/labour costs, the contractor provides services for a lump sum price each operating Saturday. The price includes the services of a chemical supervisor and at least four technicians/labourers (although in peak seasons more may be used, but at the same lump sum price) to receive, identify, sort, bulk, consolidate, process, package and handle material received. Including set-up, operations, packaging, and clean up, the personnel are generally on-site for 10 to 12 hours per operating day. All training and personal protective equipment are the responsibility of the contractor. The current lump sum price for personnel/labour is about \$1,260 per operating day (inc. net HST). The total personnel cost for twenty-seven Saturdays during calendar year 2001 was about \$34,000 (inc. net HST).

Site Environmental Monitoring Costs

Environmental monitoring is completed quarterly in three (3) groundwater wells and one (1) surface water location at the site. The yearly price is about \$4,000 (inc. net HST).

Materials Management Costs

The materials management cost is a per package price for each type of material and is inclusive of all costs including such things as environmental insurance, bonding, material identification, sampling, equipment (forklift, trucks, etc.), packages (drums, totes, etc.), consumables (vermiculite), transport, handling, storage, final processing, facility costs, recycling, management, disposal, etc. For the twelve months ending December 2001, this cost was \$288,386.

The table below shows the types of materials, total packages, current materials management costs and total costs for the materials received at the HHW Depot based on calendar year 2001:

Waste Material Type	Package Type	Total Number	Current Price Per Package	Total Price - Year
alkyd paint	tote	52	\$481.68	\$25,047
latex paint	tote	147	\$206.50	\$30,356
oxidizers	labpack	31	\$162.74	\$5,045
corrosives - hydroxides	labpack	40	\$122.57	\$4,903
corrosives - acids	labpack	30	\$127.72	\$3,832
flammables - bulk	bulk drum	50	\$101.97	\$5,099
flammables - labpack	labpack	1283	\$106.09	\$136,113
pesticides, liquid	labpack	41	\$203.94	\$8,362
pesticides, solid	labpack	15	\$203.94	\$3,059
oil	bulk drum	160	\$66.95	\$10,712
glycol	bulk drum	26	\$90.64	\$2,357
aerosols	labpack	80	\$130.81	\$10,465
propane, small	labpack	30	\$334.75	\$10,043
propane, 20 lb.	tank	500	\$4.12	\$2,060
acid batteries	item	624	\$4.12	\$2,571
dry batteries	labpack	18.5	\$504.70	\$9,337
fire extinguishers	item	15	\$61.80	\$927
helium/freon	tank	11	\$61.80	\$680
Total (inc. net HST)				\$288,386

Note: bulk drum = 205 L, labpack = approx. 75 L of product, toter = approx. 300 L for paint

HRM Staff's Role

Waste Resources staff person is on call on the operating Saturday as contact in case of emergency or spill, and as required by Transportation of Dangerous Goods (TDG) Act. As the HRM is the Generator for TDG, at days end (about 5:30 p.m. or so) the HRM staff person checks the site, number and type of packages, then signs the manifests and tally sheets for the load.

Possibility of HRM Staff Operating the HHW Depot

The management of HHW material is subject to Provincial and Federal regulations. Accordingly, all personnel working at an HHW depot must be properly trained and certified to take receipt, identify, process, package and handle materials received. A typical Saturday would require at the minimum one senior staff person, i.e. Coordinator (with a background in Chemistry) with at least four properly trained technicians for a ten (10) hour day. If HRM staff were to take on operations, they would be responsible for the set up each day, the operations, packaging, clean up and loading for transport of the material. The HRM would be responsible for environmental insurance, as well as bonding of each employee. Taking into account the staff training and equipment required, we believe the HRM staff costs would exceed the \$34,000 charged by the current operator for personnel and labour associated with twenty-seven Saturdays per year. Comparative costs were developed using existing HRM rates for a Works Supervisor and Process Technicians as an example.

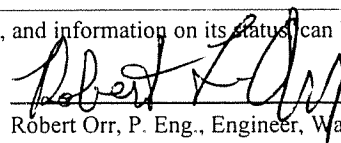
The current and previous operators who process both commercial and residential HHW at their central facility, achieve larger volumes of HHW resulting in efficiencies in scale for capital investments (ie equipment, vehicles etc.) and training of staff. If HRM were to operate the HHW depot directly, we would have to seek recycling and disposal facilities for each of the HHW materials received. The current contractor obtains a price based on the total volume they handle. The operation of the HRM HHW depot since 1996 by a private firm, has provided a good quality service to the residents of the HRM.

ATTACHMENTS

N/A

Additional copies of this report, and information on its status, can be obtained by contacting the Office of the Municipal Clerk at 490-4210, or Fax 490-4208.

Report Prepared by:



Robert Orr, P. Eng., Engineer, Waste Resources 490-6698