

E.R.: 88-110.1  
File: Landfill-Gen., Policy

**The Regional Municipality of Waterloo**  
**Commissioner of Engineering**

To: Chairman Fred Kent and Members of the Engineering Committee

Date: Thursday, July 7, 1988

Subject: Disposal of Waste Tires

Recommendation:

That the Regional Municipality of Waterloo approve the following:

Disposal:

- a) That all commercial and industrial sources of waste tires for disposal be directed and accepted ONLY at the Cambridge Landfill.
- b) That tires collected by area municipal forces or contractor during the annual clean-up programs be considered commercial/industrial waste under this policy.
- c) That all mixed loads originating from commercial and industrial sources must be removed from the site or pay two times the tire tipping rate.

Charges:

- a) That tires disposed at the Regional Municipality of Waterloo transfer stations and landfill sites by householders be charged a rate of \$3.00 per tire commencing with the institution of a cash handling system at the Regional landfill and transfer station sites.
- b) That all tires for commercial or industrial sources are charged a tipping fee of \$63.00 per ton (split or unsplit) commencing September 1, 1998.
- c) That shredded tires be received at Cambridge Landfill at the current tipping fee.
- d) That residue from waste tires remaining from recycling operations is received at the Cambridge Landfill at the current tipping fee provided the residue meets Regional criteria with the stipulation that the waste generator may apply to the Regional Municipality of Waterloo for the waiving of the tipping fee under the "Wastes Generated from Recycling Operations" policy.

Processing:

- a) That the Regional Municipality of Waterloo establish a tire storage and processing site in the non-putrescible section (north) of the Cambridge Landfill.
- b) That the Regional Municipality of Waterloo contract with Resource Recovery Orangeville to shred the existing stockpile of waste tires at the Cambridge Landfill at a cost not to exceed \$16,000 (as per quote, \$0.35 per tire)

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- c) That the Regional Municipality of Waterloo enter into an on-going contract with Resource Recovery to shred bi-monthly accumulated tires at the Cambridge Landfill at an approximate cost of \$0.37 per tire, such contract to expire December 31, 1988
- d) That the Regional Municipality of Waterloo allow the transport of shredded rubber from the Cambridge Landfill to Orangeville for further processing, provided that this is at no cost to the Region.

Summary:

The Regional Municipality of Waterloo program to dispose of waste tires has lacked positive direction for two reasons. One, the reliance on the private sector to accept all waste tires has not materialized over the last year. This has resulted in the loss of one year in development time for other alternatives. Second, banning of tires at Regional Landfills without a viable alternative is considered neither politically nor strategically acceptable. The private sector has only recently demonstrated the availability of on-site shredding of waste passenger car tires. Removal off-site of the residue for further processing and marketing is expected within 1988.

In order for such a shredding operation to be successful, all Regional Municipality of Waterloo waste tires for disposal must be stockpiled at one convenient location to provide sufficient tires for shredding as well as to make any gains in landfill capacity worthwhile. As well, however, the tipping fee must be sufficiently high to cover the expected costs of handling, shredding, shipping and final processing of the residue but not be an economic hardship to the generators.

On January 11, 1988, staff of Solid Waste Operations banned tires from Regional Landfills and directed all such waste to Retico Rubber, Ayr. This approach was not successful. Instead, staff then decided to dedicate an area of the non-putrescible section of the Cambridge Landfill (inert area) Site to stockpile all waste tires for disposal and began negotiations with interested shredding companies.

Resource Recovery (Orangeville) has proposed to shred Region Municipality of Waterloo waste tires for approximately \$36.66 per ton (\$0.37 per tire) with the future option of transporting the residue offsite to Orangeville for final processing.

Report:

Control of the disposal of tires at the Regional Municipality of Waterloo landfills has been a problem for several years.

Retico Rubber, Ayr has not been able, to date, to accept more than 45 per cent of regionally generated tires for disposal.

The Regional Municipality of Waterloo tipping fee for the disposal of tires (\$31 per ton) has not been an economic incentive to use the Retico Rubber Facility at Ayr. Retico

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currently charges \$0.25 to \$0.35 per tire (\$25 to \$35 per ton) F.O.B Ayr. Small independent tire haulers like The Tire Man (Petersburg) are unable to pass on these backend costs to the generator.

Current private sector recycling operations (Ayr) are unreliable for the disposal of all regionally generated tires. Frequent disruptions caused by plant shutdowns for repairs and maintenance, overstocking, outside sources, etc., intermittent refusal to accept locally generated tires have seriously undermined Regional attempts to encourage private sector tire recycling operations. Independent tire haulage companies cannot recoup their operating or overhead costs when tire disposal costs range from \$0.25 to \$0.35 per tire and the floor price collection is set at \$0.31 per tire (plus transportation costs) through the Regional tipping fee (two times the rate for tires) for disposal. The approximate spread of \$0.06 per tire is considered insufficient to attract local tire recycling haulers or other recyclers.

On January 1, 1988, Solid Waste Operations put a ban on the disposal of tires at the Waterloo and Cambridge Landfill Sites. Henceforth, all tires for disposal would be directed to Retico Rubber, Ayr. Mixed loads of tires would be double charged to encourage the separation of tires at the generators site. Special handout cards were prepared and distributed to all haulers and persons using the landfill stipulated that tires were no longer accepted at Regional Landfill Sites after January 11, 1988.

Within a short period it became obvious that Retico Rubber could not reliably accept all tires both public and private (Goodrich, Uniroyal, etc.). Garages balked at the extra expense of transporting tires to Ayr. Plant shutdowns and the unavailability of tire disposal service at Retico caused Solid Waste Operations to rethink this approach.

Solid Waste Operations developed an internal program to facilitate the collection, storage and shredding of all regionally generated waste tires for disposal. This program was consistent with Operations overall plan to remove all unnecessary wastes from the Waterloo and Cambridge Landfills established for putrescible wastes thereby conserving volume.

The inert area (North) of the Cambridge Landfill has excess disposal capacity and would allow for the storage, shredding, disposal or ultimate transfer of shredded tires offsite. For any shredding proposal to work, the waste tires had to be collected and stockpiled in one area for each access. A standard Regulation 309 (Ministry of the Environment, Environmental Protection Act) test was done on a typical shredded tire. The analytical results indicated that the shredded material passed the requirements and would unlikely be prohibited by the Ministry from storage in this area.

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On February 1, 1988, all waste tires for disposal were directed now to the Cambridge Landfill. Since that time approximately 450 tons of tires have been stockpiled at a prepared area in the North half of the site.

Both ShredTech (Cambridge) and Resource Recovery (Orangeville) have been discussing with Regional staff the feasibility of shredding waste tires at one or both landfills as a method of tire disposal. Resource Recovery has only recently become operational. George Vallance, Plant Manager, has visited the Cambridge Landfill and submitted a quotation to shred the existing tire stockpile (\$16,000 or \$35.55 per ton) as well as a bi-monthly shredding of future waste tire quantities (\$11,000 or \$36.66 per ton). The collected tipping fee by the Region for the accumulated waste tires is \$13,950 (450 tons multiplied by \$31 per ton). After July 1, 1988, this fee would have been \$25,200.

The Region currently generates approximately 1,800 tons of tires above that which is going to Retico Rubber, Ayr. It is expected that the annual contract fee by Resource Recovery to shred these tires in-place bi-monthly would be \$66,000 per year. The accumulated revenue through the Regional tipping fee would be \$100,800 (after July 1, 1988) for the net surplus of \$34,800. These funds could be used to establish a more permanent transfer station facility at the Cambridge Landfill to transport shredded wastes to Orangeville for final processing.

ShredTech has declined to quote on shredding tires because of insufficient tire volumes.

Residents in the urban and rural municipalities should recognize the costs of handling and disposal of old tires as it is suggested that a \$3 per tire disposal fee be charged at landfill sites and transfer stations. Implementation of this charge should not predate the institution of a cash handling system at these sites. This is currently under review by Finance Department staff. Private generators would have to have their tires transported to the Cambridge Landfill and pay the double tipping fee.

Municipalities providing springtime or annual clean-up for wastes not normally picked up should be required to separate out tires and recyclable white goods and scrap metal from the waste stream prior to disposal. Mixed loads of tires and recyclable white goods should be charged twice the current tipping fee to cover costs of additional handling.

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