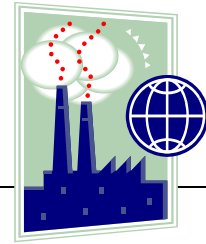


The Wesleyville Solution



Rethinking incineration: How long can Toronto keep exporting its trash?

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For any self-respecting environmentalist, the daily cavalcade of tractor trailers carrying Toronto's trash to small-town border dumps in Michigan has to be seen as a national disgrace. It's right up there with polite Victoria discharging 100,000 tonnes of raw sewage daily into the Pacific Ocean.

On any given day as many as 350 big trucks lumber southwest along the 401 carrying Ontario – mostly Toronto's – garbage to the U.S. One Michigan dump alone handled enough Canadian garbage last year to fill 1,000 football fields with junk piled a metre high.

Why this is happening is a convoluted story involving bad municipal planning, a provincial government changing landfill rules in midstream, fierce environmental lobbying and decades of short-sighted NIMBY-induced politics.

But one thing is clear: The Americans don't want Canadian garbage even if their private dumps have signed long-term, dirt cheap contracts with a giant international hauler. Since 1998, when Toronto trash first started flowing south, there have been at least 11 municipal and state laws in Michigan trying to limit or stop the influx of Ontario junk.

Earlier this week, Michigan Gov. Jennifer Granholm signed into law a bill that would ban the import of foreign trash. Michigan's law is not likely to receive the necessary NAFTA-exemption approval of the U.S. Congress or President George W. Bush.

But that may not be necessary: U.S. Homeland Security is now in on the act, suggesting the trash trucks may be hauling contraband and other no-nos, and necessitating more cumbersome and costly inspections at the border.

For cross-border dumping, the writing is clearly on the wall. But what to do? Perhaps it's time to embrace the incineration option, as a few hardy proponents are putting forward. After all, Japan burns more than 60 per cent of its municipal waste, using the heat to fire large boilers and make electricity, which is fed into the local grid.

So does much of civilized Europe, including scores of communities in France, Scandinavia, Switzerland and Austria. The waste-to-energy incinerator in the very heart of uber-urban Amsterdam is considered so spotless it is showcased as a tourist attraction.

The environmentalist claim: Incineration is bad

Incinerators have come a long way since the smelly old days when they tended to spew smoke and fly ash, even mercury, on unsuspecting neighbourhoods. Still, big environmental groups such as Greenpeace are almost virulently opposed, basically for two reasons.

The first is dioxin, a potentially cancer-causing by-product of burning plastics and the other related organic compounds that make up the stuff of modern life.

The other is that incinerators, especially big energy-producing ones, need a steady stream of garbage to make them economically viable. Feed that goat and you take away the incentive for packagers and consumers to reduce and recycle.

The unspoken environmentalist argument here is that hard-sell landfill options can only encourage municipalities to improve recycling programs, an expensive but often more politically palatable option.

Toronto, for example, has set the ambitious goal of diverting 100 per cent of all household waste – meaning everything will be somehow reused or recycled – by 2012. Detractors note the city has a long history of missing these targets: It was supposed to have reached 60 per cent this year under an earlier plan but is closer to half that by most counts.

Complete recycling is a great goal. But is it achievable? If not, is it worth the environmental trade-off of long-haul trucking and landfill sites that belch methane, a particularly potent greenhouse gas?

The dioxin fear

As for dioxin, Japan once exhibited levels 10 times that of other nations. But new standards brought in about five years ago have reduced total emissions there from something like 6.5 kg a year in the late 1990s to a tenth that, about 650 grams, today. (The stricter new rules also sparked a spate of illegal dumping as well as a high-tech disposal industry that is now busily exporting technology to China and Southeast Asia.)

In Canada, new high-temperature incinerators, which burn in excess of 1,100 C and sometimes have secondary burners to consume the released gases, emit fewer than two grams of dioxin a year. That wasn't always the case. Until fairly recently, Ontario in particular had a poor record at controlling dioxin emissions and ridding itself of old plants. So some of the new promises have to be taken with a grain of salt.

But there is one prominent success story – just next door to Toronto in fact – in neighbouring Mississauga: It burns roughly 160,000 tonnes of garbage a year and contributes about six megawatts of electricity to the provincial grid, enough it is said to power 6,000 homes. Its leftover ash is so clean it is used to cover landfill.

Cost benefit analysis

Here's where things can get murky, especially if you are trying to factor in environmental benefits. In a big study last year, the province's plastics and paper industries – not exactly neutral observers – argued that mandating a 60-per-cent recycling rate for all packaging materials would drive the costs of the blue box program up significantly with only marginal environmental benefits.

» See Canadian Plastics Industry Association website [www.cpia.ca]

Self-serving? Well, yes. But what was interesting was some of the side analysis, conducted by an independent environmental-modeling firm. It suggested that if the larger centres plateaued at 60-per-cent recycled materials and left the remaining 40 per cent for either landfill or energy incineration, the latter would be by far the cheaper option – \$106 a tonne versus \$227 on average. Incineration would also produce a greater reduction in greenhouse gas emissions.

The assumptions here of course are that highly efficient incineration or gasification, a related waste-to-energy process, would result in greater cost recovery for the facility and would also displace more polluting forms of energy on the provincial grid.

At face value, landfill is still the cheapest option at roughly \$50 a tonne for tipping and hauling. The Mississauga power-incinerator charges about \$129 a tonne tipping fees.

But recycling is not without its high costs. The City of Toronto estimates the added cost of extending its green box program for organic waste to apartments, the next difficult step, at \$195 a tonne. Other apartment-based diversion programs that are in the works are equally expensive.

Japan's new municipal incinerators range from \$9 million US for a small-scale burner (240 tonnes a year) to roughly \$400 million US for a 1,500 tonnes-a-day behemoth.

That's about the size Toronto and others would need. At 60-per-cent recycling, a level it hopes to reach by 2008, that would still leave at least 400,000 tonnes a year of residual garbage to find a home for. That works out to roughly 1,000 tonnes a day of waste fuel.

The political realities

Given that the province needs electricity and big cities like Toronto need a permanent solution to their garbage crisis, it is little wonder that the pro-incineration lobby is heating up in Ottawa, the Niagara region and around the Toronto area.

The Association of Ontario Municipalities waded into the debate a few months ago as well, calling incineration a valid option. Some proponents even have existing sites in mind, chief among them Wesleyville, an abandoned oil-fired generating plant near the Darlington nuclear station that has been sitting idle for 30 years and has the advantage of being on a railway line as well as the power grid.

Senior officials at Ontario Power Generation also seem interested. But at this point, the ball is in Toronto's court. The city is needed for the sheer amount of waste it can bring to the table.

Toronto city council is very pro-recycling and seems keen on reaching the 100-per-cent goal. What's more, Mayor David Miller came to office only three years ago after defeating a pro-incineration opponent. That man, John Tory, is now head of the opposition Conservatives at Queen's Park and is still keen on burning waste for power. So this issue is bound to come back, and probably soon, to the mainstream agenda.

Admittedly, there are strong opinions on all sides. As for whether incineration is an option whose time has come again, that may well depend on whether you believe today's mega-consuming humans, or even Torontonians for that matter, are capable of sorting, reusing and recycling all the day-to-day crap they bring into their lives.