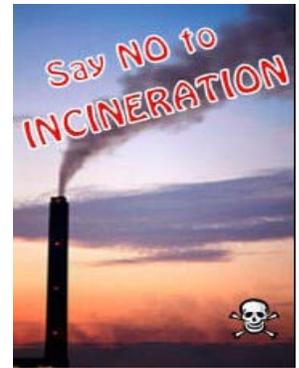


# **INCINERATION : Not Safe, Not Sensible – The Facts and Issues**

While Niagara and Halton Regions have pulled back from their incinerator plans, Durham and York Regions are still moving ahead with their plan to build an incinerator in Durham. The preferred site as recommended by the Consultants is in Courtice, on the shores of Lake Ontario between Courtice and Osbourne Roads. Incinerators are now being sold as nicer sounding “energy from waste” plants (EFWs), but they have many critical drawbacks long associated with incineration that are addressed below:



## **1. TOXIC AIR EMISSIONS**

Contrary to myth circulated by some, there is no magic device with zero emissions. In fact, all thermal treatment/incineration facilities, even those with the “best available technology”, produce and discharge toxic emissions. These include dioxins, furans, heavy metals (mercury, lead, cadmium, arsenic & others), and other chemicals of concern. Many of these toxic materials are associated with fine and ultrafine particles (nanoparticles) which can evade the best scrubbing devices in the stack and, once out in the atmosphere, they can travel very long distances. When they are inhaled, these nanoparticles can travel deep into the lungs and are so small they are able to pass into the bloodstream. There are many health studies linking incineration with increased risks for cancer, respiratory and heart disease, birth defects and other disorders.

## **2. FURTHER DEGRADATION OF OUR AIR QUALITY**

In addition to the air toxics noted above, incinerators emit a number of smog forming pollutants which include carbon monoxide, sulfur dioxide, nitrogen oxides, volatile organic compounds and other combustion related pollutants. Even the consultants hired by the proponents of this facility concluded that, of all the residual waste alternatives considered, incineration will have the greatest impact on our airshed. Halton’s medical officer of health, Dr. Nosal, raised the red flag about their proposed incinerator and stated, “The direct emissions are significant and that’s one of the key issues we have concerns with.” He commissioned air quality scientist Dr. David Pengelly to peer review the health effect section of that region’s EFW study. Dr. Pengelly reported that the Halton report failed to provide the evidence that modern incinerators are safe. Halton’s regional council soon after voted unanimously to shelve their incinerator plans.

## **3. INADEQUATE EMISSION STANDARDS**

Incinerators here may not be as “clean” as those operating in Europe because many of Ontario’s air emission standards are appallingly lax compared to most European standards. In light of the huge costs already making this a financially questionable venture, it is not likely the builders will incur the expense of putting the **best** pollution controls and monitoring technologies in place as they can be prohibitively expensive. Europe also has much more stringent regulations as to what can be burned and employ secondary separation so their waste stream is “cleaner” and much different from ours in Ontario.

## **4. LANDFILL/HAZARDOUS WASTE STORAGE REQ'D FOR TOXIC ASH**

We are told “landfill or incineration”. That is a false choice as incineration requires landfill. Approximately 25 – 30% of the mass of garbage that goes into an incinerator comes out as highly toxic fly ash as well as bottom ash containing toxic residues which requires landfill, and the other 70% is released as emissions into the air.

## **5. TAINING OUR LANDS AND LOCAL FOOD SUPPLY**

Dioxins, furans, and other toxins accumulate on our lands and waters. They enter the food chain and when animals eat contaminated plants and sediments, they get concentrated in their fat and pass it on in dairy and meat products. What are the implications for our locally produced food and our farm community? In Europe, meat, dairy and eggs must be regularly tested for dioxin and dioxin-like PCBs. We have no such regulations in Ontario.



## **6. VERY EXPENSIVE AND FINANCIALLY RISKY**

The incinerator cost estimates have been from \$150-\$250 MILLION dollars to build. York Region, originally a 50/50 partner is now only committing to +/- 20% of the capital cost. Incineration will likely necessitate a substantial increase in our regional taxes that may well extend beyond the lifespan of the incinerator. Put-or-pay provisions for incineration projects (included in the Durham Plan) can be risky agreements for communities, as it requires the community to guess the amount of waste generation in their community for the next 25 - 35 years. If they do not PUT

as much waste as they estimated, they are still required to PAY for it. But this approach is short-sighted, because it does not take into account the impact of new and less expensive diversion technologies, alternative cheaper disposal options, new regulatory requirements, changes in the composition of the waste, and the impact the state of the economy has on waste generation.

#### **7. NEED TO IMPORT WASTE FROM OTHER REGIONS (York, Peterborough, Northumberland, elsewhere?)**

The present plan is that the proposed facility will burn a minimum of 140,000 tonnes per year. It will burn all of the municipal residual waste (and some industrial/commercial) from Durham region. It will also be burning waste from York Region. Discussions are ongoing with Peterborough and Northumberland counties about taking their garbage to burn here. Of great concern is the fact that, in their Terms of Reference for the environmental assessment, the Regions propose a facility with a minimum capacity of 316,000 tonnes per year WITH NO UPPER LIMIT ON THE SIZE OF THE FACILITY to limit their ability to add on to it in the future. **Will we become the new Michigan?**

#### **8. CONTINUOUS WASTE LOAD REQUIREMENT DISCOURAGES SUSTAINABLE PRACTICES**

Incinerators are designed to burn a fixed tonnage 24 hours a day, 7 days a week for optimal operation. Residents would be subjected to the toxic fallout of those emissions continually for the 35 year lifespan of the facility. No matter how successful we are at reducing, reusing, recycling, repairing and refusing, the incinerator will still demand a fixed amount of waste to be burned and thus acts as a disincentive to these top priorities of sustainable waste management.

#### **9. A WASTE OF ENERGY AND CONTRIBUTOR TO GREENHOUSE GAS EMISSIONS**

Incinerators are being sold as a wonderful way to solve two problems at once by getting rid of garbage while producing energy. The fact is that not much energy is actually generated. Scientists estimate 3-4 times more energy is saved by reusing objects and recycling materials in the waste stream. The earth has limited resources and we cannot go back to energy consuming extraction of virgin materials to replace items that would be burned. If you recycle those things that burn best, like paper, cardboard and plastic from the wastestream, then what's left doesn't burn well and petroleum products must be added to get the garbage to burn or other energy consuming measures must be taken.

As an energy producer, mass burn incineration contributes more grams of greenhouse gases per kwh than coal-fired power plants who are known for their dirty energy. Incineration technologies are bad for climate change. **It is inconsistent to express concern about global warming while at the same time recommending the burning of waste.**

#### **10. INCINERATION IS NOT A SUSTAINABLE SOLUTION**

By destroying useful resources that must then be replaced, incinerators -- including mass burn, plasma arc, pyrolysis, and gasification -- make our waste problems far worse than they would otherwise be. Incinerators prevent us from adopting sensible modern ways of doing business. Incinerators are a major deterrent to clean production, full recycling, resource conservation, zero waste, and a sustainable economy.

#### **ARE THERE BETTER ALTERNATIVES TO DEAL WITH OUR RESIDUAL WASTE? YES!**

As we plan for the next 20 years, we must make decisions about waste management which have the lowest possible impact on the environment and human health. At the FRONT END we must reduce the amount of garbage we generate. Aggressive diversion, extended producer responsibility, better industrial design for the 21<sup>st</sup> century, more stringent packaging laws are all components of a comprehensive waste strategy. At the BACK END, there are newer, non-thermal technologies which have a smaller impact on climate change. There are many cities and municipalities around the world with progressive and more sustainable waste plans.

*The Region of Durham made a decision to go to thermal treatment/incineration without fully exploring all of the different alternatives.* Durham Region in December, 1999 stated they will support the development of "Energy From Waste" type facilities (EFW). They hired consultants to promote their vision, not to give us unbiased studies or information on their proposal. The Region's consultants are members of the Canadian Energy-From-Waste Coalition who recently officially registered with the Ontario Lobbyist Registry, specifically to advocate for "Energy-From-Waste" (incineration).

#### **WHAT CAN YOU DO TO HELP PROMOTE BETTER ALTERNATIVES?**

Ask Clarington Council and Mayor Abernethy to **vote NO to incineration**. Contact: <mailto:council@clarington.net>  
Ask Regional Council members and Mayors to **vote NO to incineration**. (<mailto:Clerks@region.durham.on.ca>)

For more information, detailed fact sheets and contact information please visit: [www.durhamenvironmentwatch.org](http://www.durhamenvironmentwatch.org)  
Send an email to [info@durhamenvironmentwatch.org](mailto:info@durhamenvironmentwatch.org) to register as a concerned citizen and to receive updates & action alerts.