

C.H.A.S.E.,
P.O. Box 10,
Carrigaline,
Co. Cork
086 8714665
www.chaseireland.org.

Cork Harbour
Alliance
For a Safe Environment

CHASE WHITE PAPER

PROPOSAL ON HAZARDOUS/TOXIC WASTE MANAGEMENT

Summary

1. Municipal waste is the current over-riding priority for Ireland.
2. Impose a moratorium on incineration of hazardous/toxic waste.
3. Conduct an in-depth, professional study to evaluate the alternative current, non-burn treatments of hazardous/toxic waste; see appendix.
4. If a national treatment facility for hazardous/toxic waste is deemed to be required then all current facilities dealing with such materials must be phased out.

Background

Current Government proposals as outlined by FORFÁS and EPA provide for a National Hazardous/Toxic Waste Incinerator.

Phase I: planning application has been lodged for siting of this proposal in Cork Harbour.

Phase II: proposed siting of a similar capacity Municipal Waste Incinerator

1. Analysis of the Problem

Disposal of hazardous/toxic waste is not an urgent problem as for the outlying reasons:

- (a) Insufficient Volumes of Waste
The quantities of hazardous/toxic waste are relatively small, i.e. circa 30-50,000 tons a year, which constitutes <0.5% of waste produced nationally. (Ref: EPA Millennium Report 1998)
- (b) Current Practices Suffice
Existing structures are in place to deal with these volumes, i.e. export to Europe for remediation, de-construction, re-construction and incineration.
- (c) Current Practices
Industry is obliged to implement waste reduction and clean production strategies in accordance with the EPA, IPC (Integrated Pollution Control) Licenses.
- (d) Hazardous Waste not a National Priority
Due to small volumes, current working practices and reduction strategies, the issue of hazardous/toxic waste is not as urgent as municipal waste.
- (e) Real Issues
In the interim, standards of operation of existing facilities should be improved and controlled.

2. The First Step

- (a) If any centralised hazardous/toxic waste treatment centre is eventually deemed to be technologically and economically appropriate, then all private and other incinerators dealing with such materials should be phased out.
- (b) Logically therefore, we propose a moratorium on the commercial incineration of hazardous/toxic waste while we address the more pressing issues of **municipal waste** which is a **priority** matter.

3. The Real Issue

Municipal waste to landfill is unquestionably the priority problem and has first to be correctly addressed under the headings of **Reduce**, **Re-use** and **Recycle**.

Phase 1

Reduction through proven local waste minimization and re-cycling programmes and legislative measures, e.g. plastic bag levy.

Phase II

Centralised **separation and segregation** of other resource/waste streams for recycling coupled with Eco-parks to facilitate resource re-use and appropriate remediation treatment.

Phase III

Treatment/disposal of residual municipal waste.

Phase IV

Address the issue of hazardous/toxic waste treatment as appropriate.

Phase V

In the longer-term focus on re-design of products and processes to reduce environmental impacts.

4. Action Needed

Adequate time is required to evaluate the issues and conduct a proper professional study engaging the Government, NGO's (Non-Governmental Organisations) (including concerned Environmental Organisations) and industry to work in close co-operation.

This study should adopt a holistic approach to:

- Waste minimization (in industry, commerce and the home)
- Enhanced recovery of wastes, recycling and transformation.
- Evaluation of Eco-friendly alternative treatments and disposal techniques.
- Legislative initiatives which encourage waste reduction at source.

The Main Criteria for the Study should be:

- A. Sustainability with defined Environmental Objectives
- B. Economic basis of each solution

5. Methodology Recommended

Any study must be carried out by a team that will include the support and gain the confidence of the NGOs and local concerned environmental organizations. The study should demonstrate knowledge, competence, independence and originality.

As this is a national problem, funding must be provided by central Government.

Authorship (in alphabetical order):

C.H.A.S.E.

ALTERNATIVE TECHNOLOGIES TASK FORCE

Members:

Carmel Cronin MSc BSc, AJ Navratil BSc, PH North MSc, Mary O'Leary BSc

Modern Non-burn Alternative Treatments

Waste Treated (Matrix)	Process	Vendor Contact Information
<ul style="list-style-type: none"> • Chlorinated, non-chlorinated organics • Agricultural waste e.g. DDT, sheep dip etc. • Sediments, soils, ground water, WEEE, process wastes • Chemical industry waste 	Gas Phase Chemical Reduction (GPCR)	www.eco-logic-intl.com
<ul style="list-style-type: none"> • Solvents (medical diagnostic waste). Assessed for treatment of low-level radioactive waste • Pharmaceutical organic and inorganic waste • Chlorinated & non-chlorinated waste • Ion exchange resins 	Electrochemical Oxidation (Silver II)	www.aeat-prodsys.com
<ul style="list-style-type: none"> • Same as above. 	Electrochemical Oxidation (CerOx)	www.cerox.com
<ul style="list-style-type: none"> • PCB's and highly chlorinated wastes 	Base Catalysed Dechlorinated	www.bcdinternational.com
<ul style="list-style-type: none"> • Low-level radioactive wastes. • Chlorinated solvents • Soils • Ground water wastes. 	Supercritical Water Oxidation	www.ga.com/atg/aps/scwo.html
<ul style="list-style-type: none"> • Contaminated bone meal • animal by-products • bovine risk material • hospital cytotoxic wastes • chemotherapy wastes 	Alkaline Hydrolysis	www.wr2.net
<ul style="list-style-type: none"> • Hazardous sludges • wastewater 	Wet Air Oxidation	www.zimpro.com
<ul style="list-style-type: none"> • PCB's and highly chlorinated solvents • CFC's • soils • spent oils • explosives 	Solvated Electron Technology	www.commodore.com
<ul style="list-style-type: none"> • Sludges & industrial wastewater, • pulp liquors 	Wet Oxidation & Hydrolysis	www.zimpro.com

<ul style="list-style-type: none">• can be pre-treatment prior to biological degradation process		
--	--	--