



Photograph by Norbert Nagel - Own work.

Option 4 Conventional (mass burn) incineration

This option processes waste in a modern incinerator. There is a range of technologies available with differences in control systems and residual ash management (to handle the ash that remains after combustion is complete). Facilities typically burn 250,000 tonnes of waste per year or more, and generate energy for heat or power generation.

A significant portion of the cost of conventional incineration is related to managing emissions to meet relevant standards. This is one reason for larger plants, as the relative cost of managing emissions reduces at a larger scale.

Conventional incineration does not destroy completely the waste being processed. Residual streams include:

- Unsuitable materials - large or otherwise unsuitable materials removed prior to combustion e.g. large rubble, metal. In some cases this material is recyclable, in others it requires disposal at an appropriate landfill

- Bottom ash - the material left over after all the burnable material has been destroyed
- Fly ash or air pollution control residues - material captured as the air emissions from the combustion process are cleaned. This material needs to be stabilised and treated as hazardous waste i.e. disposed of at a high-standard landfill after stabilisation.

Examples in operation

New Zealand: None - one has been proposed in Hokitika

Australia: None, although several projects are being proposed, with one in Western Australia under construction (anticipated to process 400,000 tonnes of waste per annum)

Rest of the world: Common in Asia, Europe, the UK and North America - all are large-scale incinerators