

M.E.T.T.S. Pty. Ltd.

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July 7, 2006

(Second) Submission into Waste Generation

Commissioner, Philip Weickhardt,
Inquiry into Waste Generation
and Resource Efficiency,
Productivity Commission

Dear Commissioner,

In the original M.E.T.T.S.'s submission a case was made for the re-examination of incineration as a waste management measure. This second submission looks to reinforce that theme under four specific headings:

Public and occupational health and landfill fires.

On January 11, 2006 a major fire occurred in the Woodlawn Landfill, South West of Sydney. The fire was attended by both the NSW Fire Brigade and the NSW Rural Fire Services, however the extinguishing of the fire had to be left solely to NSW Fire Brigade's Hazardous Materials personnel who provided two specialist Hazardous Materials appliances (plus one command vehicle). The Rural Fire Brigade units were prevented from actively assisting due to the presence of toxic fumes in and around the landfill, since their personnel were not equipped with breathing equipment and were not trained in managing fires that produce hazardous emissions.

The Woodlawn Landfill [1] fire was an example of the public and occupational health hazard of such landfills. A similar fire occurred at Wingfield in South Australia in 2005, and landfill fires and smouldering are recognised as a hazard of the landfill system of waste management. The fires can be very difficult to fully extinguish and through the partial combustion of plastics and other organics have been reported as being a major source of dioxin and other VOCs.

Public safety and long distance waste haulage.

Lucas Heights 2 has capacity for 12 million tonnes of waste, and given the present input of around 600 kT per year [2], will have an effective life of some 20 years. In this lifetime some hundreds of thousands of large truck movements travelling over 50 km (round trip from Sydney) will occur. The hazard to public safety of so many major truck movements is very considerable.

If incineration was used to reduce the volume and mass of waste prior to landfill, the number of truck journeys would be cut by at least 80%, and the landfill (utilised as an ash landfill) would have at least treble the life. Rail transport of ash from a few incinerators to Woodlawn would be a feasible option to the continued use of Lucas Heights. The 2MT/year of waste going to landfill from Sydney would be reduced to less than 400 kT of ash, and thus Woodlawn would suffice as a ash landfill for at least 50 years.

The licensing and acceptance of new landfills.

Despite many parts of Australia having useable voids for use as landfills, each new landfill will require EPA and local government licensing and approval with those approvals will becoming increasingly more difficult to obtain due to public hostility and stricter environmental controls. Further the cost and uncertainty of licensing will become a major factor in the profitability of waste management with that cost will being passed onto the community.

The distance from waste source to landfill.

Besides the vehicle accident hazards associated with the transport of wastes, the greater the distance between the landfill and the waste source, the higher will be the total environmental cost. Truck and rail haulage does take energy (as fuel and embodied infrastructure energy), and thus does add to the total emissions from waste management. Again incineration will reduce the volume and mass of material to be transported, and thus the overall energy cost.

Where energy recovery is practiced, the energy cost of disposal will be reduced, and possibly produce a positive energy flow into other activities.

In conclusion.

I recommend that the Commission seeks further information on modern incineration systems (especially those with energy recovery), and produces a sub-report on how those systems can meet environmental standards and community expectations.

References.

1. Inside Waste, Issue 11, February/March 2006
2. Independent Public Assessment – Landfill Capacity and Demand, NSW Dept. of Urban Affairs and Planning, September 2000

I trust that the above very short submission will be of assistance in your deliberations.

Yours faithfully,

Michael C. Clarke