



GUIDELINES FOR MANAGEMENT OF PLASTIC BAG LITTER AT LANDFILL SITES

INTRODUCTION

On 23 December 2002, the Environment Protection and Heritage Council agreed to a package of measures to reduce the environmental impact of plastic bags and asked that specific proposals be developed for national action, including ways of reducing the impact of plastic bags as litter. The Guidelines for Plastic Bag Litter Management have been developed as a small part of the overall response to the plastic bag litter issues.

High consumption rates of plastic bags have led to increased inappropriate disposal of bags. Plastic bag litter can negatively impact on the community's perception of and use of public areas. It can also seriously harm or kill wildlife and domestic animals.

Approximately 2% of all litter items are plastic bags, which are particularly prone to becoming litter due to their low weight and ability to 'balloon' and travel in wind. Plastic bag litter can be accidental – arising during management of an intended disposal site (whether a bin or landfill) - or may be due to intentional littering behaviour.

The following guidelines have been developed to help managers of unattended and attended landfills reduce generation of plastic bag litter and aim to protect residents and the environment from the off-site effects arising from landfills receiving municipal waste. They are complemented by similar guidelines developed for managers of outdoor public places such as shopping precincts and parks.

These Guidelines are not designed to be prescriptive and are based on the premise of shared responsibility. They should be disseminated to all stakeholders associated with design and management of landfills. The Guidelines are not intended to be onerous for landfill managers and consideration should be given to the appropriateness of the guidelines for each site as well as the resources available. The Guidelines specify desired outcomes as well as providing suggested means of achieving litter reduction goals.

It is recognised that in many cases the underlying principles and guidelines will already be in place. It is intended that voluntary implementation of the Guidelines by local governments, state and territory governments, landfill managers and enforcement agencies will assist a national approach to best practice litter management.

Although focused on plastic bag litter, the guidelines provide advice that may have a broader litter reduction impact. However, the Guidelines are not intended to replace the wider range of existing policies that may impact on litter. Rather they are intended to complement existing litter management and prevention policies, including educational activities of local governments, state and territory governments and enforcement agencies and other landfill managers.

LANDFILL LITTER MANAGEMENT:

Landfill disposal contributes to the inadvertent litter problem with loose bags becoming windblown litter. To be effective, litter control strategies should include both engineering solutions and management options. Litter at landfill sites is largely associated with delivery and unloading of waste rather than with compaction and burial operations as the compaction and burial process generally punctures the plastic bags and covers the waste material making bags less likely to become windblown.

ATTENDED LANDFILL SITES:

Acceptable Outcome

Landfill operators should take all reasonable steps to:

- Prevent the generation of litter.
- Prevent litter accumulation on the premises.
- Prevent litter leaving the site.
- Prevent off-site litter accumulation within the vicinity of the premises.
- Regularly clean up litter both on and in the vicinity of the site.

Recommended Controls to Achieve the Outcome

Currently some licences do not require effective litter management for litter control but do include conditions prohibiting the burning of litter and ensuring litter does not build up on fences, screens or in the surrounding area. Appropriate procedures should be developed and amendments added to landfill licence conditions and operating contracts for the management, acceptance and placement of wastes to prevent inadvertent off-site transportation of loose and lightweight material.

Litter controls employed at the landfill site should include the following as a minimum:

- a) Mobile litter screens that are easily erected, at least 1.8 metres high, highly portable and able to withstand local wind conditions whilst loaded with litter. In some areas screens of up to 4 metres may be necessary to allow for local wind conditions.
- b) Litter screens should be constructed in such a way as to retain litter onsite even during variable wind conditions. Use of suitable material for screens that allows litter to be retained against the screen should be considered, particularly in areas of strong and variable winds.
- c) Mobile litter screens should be located downwind of the working face and relocated as necessary in accordance with wind changes.
- d) All site fencing, gates and litter screens should be regularly cleared of litter. Fences in close proximity to the tipping area and in prevailing wind directions may require more frequent attention.
- e) Establishment of an appropriate contingency plan to deal with extreme events that could cause gross litter problems.
- f) Regular inspection of the disposal site and surrounding areas should be conducted to identify any litter for manual removal. Such inspection may be conducted by the landfill operator or by a regulator. Litter outside the tipping area should be regularly collected and action taken to prevent its recurrence.
- g) Landfill operators should incorporate into their maintenance work program regular retrieval of litter that has escaped the site.

- h) Litter must not be deposited or allowed to accumulate in waters or leachate dams.
- i) It is preferable that landfill tip face management:
- be managed to minimise wind dispersal of litter (for example through orientation that minimises the effect of prevailing wind conditions) and landfill operations managed to ensure that, as far as practicable, litter is retained on site.
 - use high performance waste compaction equipment to tightly consolidate the surface of the working area where operational activities allow this.
 - involve progressive application of cover material during the course of the day of operations to ensure that the minimum surface area of waste is exposed at any one time.
 - Should minimise the size of the working tip face.
- j) Independent audits of the litter control system on site should be conducted to ensure effectiveness of the litter management programs in place. These audits could be incorporated into other regular environmental audits of the site.
- k) An appropriate communication strategy should be implemented to ensure that all users of the landfill site understand the necessity for the covering of loads. Appropriate and timely enforcement of such regulations should be undertaken by the appropriate authority to ensure suitable levels of compliance.
- l) The public should be provided with a phone number for reporting litter matters to the landfill manager or another appropriate authority. This may include a local number and/or a state territory based enforcement agency number.

UNATTENDED LANDFILL SITES:

Attended landfill sites are preferable to unattended sites, as staff are able to more frequently and effectively take action to manage the landfill, including undertaking litter prevention and control activities on or near the site. There will be many sites, however, that are not attended and these guidelines are provided for unattended sites.

Acceptable Outcome

Landfill managers must take all reasonable steps to:

- Prevent litter generation.
- Minimise litter leaving the site.
- Regularly clean up litter.

Recommended Controls to Achieve the Outcome

Appropriate procedures need to be developed and written into landfill licence conditions for the management of wastes to prevent off-site transportation of loose and lightweight material.

Litter controls employed at the landfill site should include as a minimum:

- a) Appropriate regulations that require the covering of all loads delivered to landfill should be implemented, communicated and enforced to minimise the number of vehicles transporting uncovered loads of waste to the landfill. Appropriate and timely enforcement of such regulations should be undertaken by an appropriate authority to ensure suitable levels of compliance.

- b) Transportable litter fences should be installed at all sites. Such fences should be at least 1.8 metres high, be easily portable (i.e. able to be re-sited when the tipping area is relocated) and able to withstand local wind conditions whilst loaded with litter.
- c) Perimeter fences and on-site litter screens should be constructed so as to retain litter onsite even during strong and variable wind conditions.
- d) Use of litter nets above and around the tipping area could be considered to prevent litter generation from uncovered material.
- e) Landfill managers should incorporate regular (e.g. weekly, or in conditions of high winds, daily) retrieval of all litter, from all site fencing, gates and litter screens as well as removal of litter transported offsite, into a regular maintenance work program.
- f) The tipping face and disposal operations should be orientated to minimise the effects of prevailing weather conditions and minimise wind dispersal of litter.
- g) The size of the working tipface should be reduced to the minimum size possible.
- h) Maintenance programs should include regular compaction and covering of waste material.
- i) The public should be provided with a phone number for reporting litter matters to the landfill manager or another appropriate authority. This may include a local number and/or a state territory based enforcement agency number.

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