

Safety at ‘bring-sites’ in the waste management and recycling industries

Introduction

This ‘good practice’ guidance was written in consultation and with the support of the Waste Industry Safety and Health Forum (WISH). It does not aim to be comprehensive but gives examples of good practice within the industry.

It is for:

- designers;
- owners and those in control of land with bring-sites;
- managers and supervisors of those who service these sites (eg receptacle replacement/transfer); and
- local authority staff with responsibilities for bring-sites.

Depending upon your responsibilities, reference to this guidance may help you to devise, institute, monitor and revise methods of work at bring-sites.

For operators, owners or those designing the layout and contents of a bring-site, the risks associated with your particular site, and the methods of reducing those risks, should be revealed during your risk assessment.

Scope

In this guidance, a bring-site is defined as any area (usually unstaffed) where members of the public can visit to deposit recyclable materials such as glass, cans, plastics, paper, textiles, shoes etc.

Many bring-sites are situated in supermarket/retail or local authority car parks, although some can be found in other locations.

It specifically excludes manned civic amenity sites, which are covered by other guidance.¹

Hazards

The major risks to employees, contractors and members of the public visiting the site are:

- **transport**, including:
 - the movement of private vehicles (belonging to members of the public);
 - risks during reversing of private and commercial vehicles;
 - collisions between moving vehicles, and between vehicles and pedestrians;
- **mechanical lifting operations** (see Appendix 1) including:
 - the risk of collisions between hoisted receptacle and other obstructions

- (parked cars, overhead power lines, etc);
- the risks to members of the public during hoisting;
- **slips, trips and falls** (see Appendix 2) including:
 - the condition of the ground where pedestrians are expected to walk;
 - risks caused by poor visibility (eg use at night);
 - risks caused by weather conditions (eg, ice, snow, standing water, high winds);
 - risks caused by the design, location and maintenance of access structures where they are provided (eg steps, gantries etc);
- **manual handling** (see Appendix 3), including:
 - the distances the public have to carry items;
 - ergonomic risks caused by excessive reaching, stretching and stooping by the public when depositing recyclables.

Risk assessments

It is a legal requirement for employers to carry out a risk assessment to identify the measures they need to have in place to comply with their duties under health and safety law.

Risk assessments aim to:

- identify the hazards and those likely to be exposed to those hazards;
- assess the risks from those hazards, considering all foreseeable circumstances (eg special consideration may be needed for people with disabilities, young people etc); and
- eliminating or reducing the risks from those hazards so far as is reasonably practicable.

Monitor operation of the site at appropriate intervals. This will help you identify potential flaws in your systems:

- Is the site design and layout the best that is reasonably practicable to minimise the risks?
- Is the hardware (bins, receptacles, compactors etc) suitably situated and sufficiently maintained so as to minimise risks?
- Do staff and members of the public follow the instructions set out? If not, why not? This could indicate that you need to make changes.
- Are your systems adequate to control the risk? Do they need revising?
- Are your procedures sufficiently frequent? Do you need to do certain tasks more (or less) frequently?

Transport

Vehicle movements regularly cause deaths and some of the most serious accidents within the waste and recycling industry. At bring-sites, because moving vehicles can operate in close proximity to pedestrians, there is the very real potential for collisions.

Vehicles driven by the public, as well as vehicles servicing the site, create hazards that should be properly managed.

Safe site

Clear roles and responsibilities should be assigned to those having control of the bring-site and to those operating the recycling vehicles and recycling receptacles.

Site layout

- Can bring-site owners achieve a clear directional flow of traffic around the site? One-way systems are best; they can minimise the amount of hazardous vehicle reversing carried out by both the public and servicing vehicles.
- Are contents of each receptacle clearly marked and visible? This will minimise the possibility of vehicle drivers making late adjustments to driving speed and direction. It may also minimise the amount of reversing required when drivers overshoot the receptacle they need.
- Can skips and other receptacles be positioned to eliminate blind corners? If not, consider providing mirrors to improve any visiting driver's view of obscured areas.

Segregate cars, servicing vehicles and pedestrians

Can all vehicle movements (both private cars and collection/servicing vehicles) and pedestrian activities be segregated?

You could achieve this by:

- scheduling receptacle exchange movements and servicing operations (cleaning etc) during a quieter time of day (eg early morning or at the end of the working day);
- situating bring-sites away from areas where heavy pedestrian and vehicle traffic is expected (eg away from other shops or facilities that pedestrians or vehicles may wish to access);
- restricting all access to areas where collection vehicles are operating. Have enough free space around receptacles for safe vehicle manoeuvring and receptacle lifting. Some site owners use systems where areas round the receptacles are coned off before scheduled receptacle servicing/exchange to prevent cars parking nearby and impeding the visiting service vehicle;
- providing clear drop-off zones for the public (eg marked by bollards, kerbs, painted lines etc), next to receptacles.

Further controls may be necessary to ensure that pedestrians and public vehicles are effectively segregated from service vehicle movements. Suitably trained staff from the bring-site or from the pick-up company could be used to help ensure segregation.

Slow vehicle speed

- Is it possible for site owners to slow vehicle speed in the vicinity of the bring-site?
- Can prominent speed limit signs be placed at the bring-site entrance?
- Where they would not cause extra risk to moving vehicles, is it possible to use high-visibility speed retarders?

Improve vision

- Can the bring-site be lit during twilight or dark hours? This may also deter arson and vandalism etc and dissuade members of the public from trying to enter bins.
- Avoid blind corners by appropriate location of receptacles. Where blind corners cannot be avoided, can mirrors be provided?
- All staff should wear high-visibility clothing when near to vehicle movements.
- Avoid obstructions around the recycling receptacles. When cones, bollards etc are used to segregate pedestrians and vehicles, they should be highly visible (eg high-visibility paint, reflectors etc).

Minimise and control reversing operations

The number of accidents that happen when vehicles are reversing is disproportionately high when compared to the amount of time a vehicle reverses. Therefore, aim to:

- eliminate or reduce the need to reverse;
- reduce the time spent during reversing by:
 - minimising the distances vehicles have to reverse;
 - minimising the number of reversing operations that need to be done;
- minimise the potential for collisions by excluding pedestrians and obstacles from the immediate area during reversing.

Aim	Considerations
Eliminating or reducing the need to reverse	<ul style="list-style-type: none"> ■ One-way systems ■ Receptacle location ■ Provision of 'turning circles'
Minimising the potential for collisions by keeping the area clear	<ul style="list-style-type: none"> ■ Receptacle location to permit clear lines of sight for drivers ■ Good housekeeping to remove transient obstructions ■ Control of public car parking in the area around the receptacle
Excluding pedestrians from the area during reversing operations	<ul style="list-style-type: none"> ■ Providing dedicated pedestrian walkways to segregate pedestrians from traffic ■ Selecting a quieter time of day to operate ■ Providing a reversing assistant (see below)

Your risk assessment may reveal that these risk reduction strategies are incapable alone of preventing the unexpected appearance of pedestrians. There may be areas where the public cannot be excluded effectively during servicing vehicle operations, and may be expected to be present.

Your risk assessment may indicate that use of reversing aids (mirrors, beacons, reversing alarms, CCTV etc) alone is insufficient to adequately control the risks during reversing at some sites.

The actions of members of the public can be unpredictable, and they are often not aware of the dangers when they are in the proximity of working vehicles moving. Examples may include the presence of children unable to understand, and those unaware (eg visually or aurally impaired) or unable to react (eg infirm) to the risks. In these cases, a trained reversing assistant can reduce the risks when used in combination with other reversing aids.

It may be reasonably practicable to use a trained reversing assistant if the vehicle is double-crewed, or if the pick-up site is staffed (eg at a supermarket). You may conclude that wherever the public are likely to be in the vicinity during vehicle operations, you may always need to use reversing assistants if it is reasonably practicable and it is safe to do so.

Reversing assistants are defined as **trained** employees who play an active part in reversing manoeuvres by giving prearranged hand signals to drivers. Their role is to stop collisions by preventing the vehicle colliding with people and other road users. To do this they can:

- signal the collection vehicle driver to stop when it is unsafe to proceed;
- be used to warn of, or divert, approaching vehicles and pedestrians.

Additional training is essential for reversing assistants when they are expected to give directional signals and indicate clearance distances.

One of the roles of a reversing assistant is to act as a 'second pair of eyes' to detect potential risks for the driver, and to signal the driver to stop when necessary.

Important

- Only trained reversing assistants should assist reversing vehicles.
- Before making the manoeuvre, the driver and reversing assistant(s) should agree who will stand where.
- Reversing assistants should **never** stand directly behind the vehicle.
- **If the driver loses sight of the reversing assistant at any time, they should STOP!**

When reversing, remember:

- The driver should not reverse until the reversing assistant(s) are in position and have signalled that they have looked around, and are of the opinion that it is safe to start reversing.
- Reversing assistants should never walk backwards while giving signals (this poses a slip/trip risk) and should be sure the driver can see them at all times.
- Reversing assistants should remain vigilant and observant while the vehicle is reversing.
- Reversing assistants should avoid distractions.
- Reversing assistants should remain visible to the driver, in a safe place, during the reversing operation.
- Reversing should only take place when people are not, nor are likely to be, in the immediate vicinity of the vehicle during reversing.

Who should provide any reversing assistant (when identified by the risk assessment as necessary) is a matter of negotiation between the parties concerned at the contract stage. This should be effectively and clearly resolved between the parties involved. The Management of Health and Safety at Work Regulations 1999 lay out the duty of involved parties to co-ordinate and co-operate (regulation 11).

Safe vehicles

Vehicles operating in public areas with a potentially high pedestrian density (car parks, city centre sites etc) should permit the driver to have effective vision to the sides, rear and front of the vehicle. A high standard of reversing aids should be fitted to help the driver minimise risks to the public. Reversing aids may include: CCTV, parabolic mirrors, reversing alarms, reversing sensors, beacons, or a mixture of these. Your risk assessment will inform your decision of which to use.

Safe equipment

The contract between the bring-site owner and the recycling company should stipulate who is responsible for the safety and integrity of any receptacles. Equipment should be maintained in a safe condition and may need to be regularly inspected by a competent person. In particular, chains, wire ropes and other parts of the lifting equipment attached to the waste receptacle should be periodically inspected for wear and corrosion. They have been known to fail because the progressive deterioration in their condition has not been noticed.

Your risk assessment should indicate the security measures you may need in place to prevent public access to the insides of certain receptacles.

Safe worker

Drivers and any support staff involved in manoeuvring, receptacle lifting or emptying tasks should wear high-visibility clothing.

Sufficient training, instruction and supervision for all workers involved with the recycling operation should be provided specific to the task they are performing. Where site-specific rules exist, staff must understand these and carry them out.

You may need to monitor work activities periodically to assure yourself that your system of work is both suitable, and adhered to by staff.

Appendix 1: Mechanical lifting operations

The following checklist summarises some actions you can take to minimise the risks from the lifting and emptying of recycling receptacles.

Activity	Reason	Risk
<p>Check the integrity of the:</p> <ul style="list-style-type: none"> ■ recycling receptacles; ■ lifting equipment; ■ lifting points. 	<p>Look for:</p> <ul style="list-style-type: none"> ■ wear; ■ corrosion; ■ overloading. 	<p>Receptacle or load-bearing points could fail.</p>
<p>Look for snagged chains.</p>	<p>The skip should be able to move freely as intended.</p>	<p>Destruction or catastrophic failure of lifting equipment.</p> <p>Unexpected movement of the receptacle when it becomes free.</p>
<p>Check the location and surrounding area. Does the receptacle's location:</p> <ul style="list-style-type: none"> ■ conform to your requests as to where it should be placed; ■ impede or interfere with traffic movement and/or parking arrangements; ■ make a blind corner; ■ or are there overhead obstructions? Can you relocate the receptacle to avoid street lighting, bunting, overhead cables etc. Can overhanging vegetation be kept suitably pruned? (Special precautions are required under any overhead power lines and pipework. Ask site management.) 	<p>A receptacle's location is important for safe and efficient operation of the site. Interfering with smooth and planned traffic flow on site dramatically increases the risk of collisions. Creating a blind corner or obstructing pedestrian walkways can increase collision risks. Overhead obstructions can impede the lifting operation or impair the driver's view of the lifting operation.</p>	<p>Collisions between vehicles/parked cars/plant/pedestrians. Contact with electricity from the collision of any lifting equipment and overhead power lines.</p>

Activity	Reason	Risk
<p>Are all pedestrians well clear during receptacle pick up/exchange operations?</p> <p>Are you absolutely sure there is no possibility of them coming dangerously close?</p> <p>Do you need to:</p> <ul style="list-style-type: none"> ■ drop/pick up during quiet hours; ■ have drop off/pick up zones clearly demarcated; or ■ have a member of staff to prevent pedestrians from entering the area? 	<p>Effective exclusion of other people during the movement of any receptacle is critical.</p> <p>Effective receptacle location is important. Some premises have made this task easier by providing raised floor guides and 'wheel stops' to ease skip location and prevent overrun (ie the receptacle skidding when placed, and moving outside the intended area).</p>	<p>Collision risks to pedestrians.</p> <p>Risks of receptacle overrun outside the designated area.</p>

Appendix 2: Slips, trips and falls

Those in control of bring-sites may be able to reduce the risks of slips, trips and falls to members of the public by adopting some of the features below where appropriate.

Hazard and cause	Preventive features
Slips and trips caused by poor ground condition.	<ul style="list-style-type: none"> ■ The ground should be firm and without unnecessarily steep slopes. ■ Avoid uneven surfaces and sudden changes in level. ■ Surfaces should be maintained in good condition and, so far as is reasonably practicable, free from potholes, broken paving slabs etc. ■ Surfaces should be well drained to remove surface water. ■ Gulleys should be suitably covered to prevent them becoming blocked by waste and stop them from becoming a tripping hazard.
Slips and trips caused by weather conditions.	<ul style="list-style-type: none"> ■ The area should be well drained to reduce the slipping risk presented by standing rainwater. ■ When ice and snow are present, the application of grit, salt etc may be needed if the bring-site is kept open.
Slips and trips caused by: <ul style="list-style-type: none"> ■ excess waste; ■ transient obstructions; ■ spillages. 	<ul style="list-style-type: none"> ■ The area should be regularly monitored to clear away transient obstructions as soon as reasonably practicable. ■ Procedures should be in place to regularly clear away accumulations of waste and spillages in the vicinity of the receptacles. ■ The fill level of receptacles should be regularly monitored to arrange replacements, thereby preventing over-filling, spillages and items being left in access walkways. ■ Unspecified waste (furniture, electrical items etc) may be left at the bring-site. These can cause tripping obstructions unless cleared away regularly. Is it desirable or possible to provide a separate receptacle for such waste?
Slips and trips caused by poor illumination.	<ul style="list-style-type: none"> ■ Restrict operation to daylight hours. ■ Adequate illumination may be needed during twilight and dark hours.

Hazard and cause	Preventive features
Slips, trips and falls caused by access structures (if steps/ramps and gantries are provided).	<p>Although common at civic amenity sites, the provision of access structures such as steps, ramps and gantries to fill receptacles at bring-sites is comparatively rare. If they are provided, then consider providing:</p> <ul style="list-style-type: none"> ■ at steps: <ul style="list-style-type: none"> - handrails and toeboards; - broad treads with slip-resistant surfaces; - risers between treads; - high-visibility (eg yellow contrast painted) tread nosings, rounded to prevent feet catching; - signage – warning of steps, and asking users to use the handrail; ■ at ramps: <ul style="list-style-type: none"> - handrails and toeboards; - gentle gradients (avoid excessive gradients); - slip-resistant materials or coatings; - providing a ‘dog-leg’ bend in the ramp to minimise the risks of ‘runaway’ barrows, or items dropped on the ramp; ■ at gantries: <ul style="list-style-type: none"> - adequate guard rails and toeboards to prevent the public falling from the gantry or into the skip/receptacle when loading; - slip resistant materials to the walking surface.

Effective housekeeping can reduce risks:

- a clean site free from liquid spillages, dropped items, broken glass etc around the receptacles will minimise the slips and trips risk. Appropriate personal protective equipment (eg cut-resistant gloves) should be provided and used;
- materials for removing snow and ice should be available and used when required;
- housekeeping activities should not be carried out while vehicles are manoeuvring or receptacles are being lifted or lowered in the vicinity.

Falls from height

Sheeting and unsheeting vehicles and receptacles

Sheeting high-sided skips and commercial vehicles by climbing onto the vehicle without adequate means to prevent a fall is a high-risk activity with a significant risk of serious injury. Site and vehicle operators should both ensure that only safe systems of work are used. Detailed advice is given on the HSE website.²

You can prevent falls during sheeting vehicles by providing automated sheeting systems (autosheeters). These remove the need to work on top of the load. These systems are suitable for all sites and remove the need for each site to provide safe access. *Waste industry safety and health: Reducing the risks* INDG359³ and *Safe transport in waste management and recycling facilities*⁴ contain further information.

Alternatively, you could provide a sheeting station that allows access to the load via a gantry and a safety harness for the operator to prevent falls from unguarded sides of the load. Examples are given on the HSE website.²

Appendix 3: Manual handling

Site owners and/or operators will need to carry out a risk assessment. This will help identify:

- whether the need for manual handling can be avoided, so far as is reasonably practicable;
- the level of risk of injury from any manual handling operation that cannot be avoided;
- measures to reduce the risk of injury from manual handling, so far as is reasonably practicable.

Adopting some of the following suggestions, where reasonably practicable, may minimise the risks associated with manual handling to the public. The checklist is not comprehensive and your risk assessment may reveal other hazards and help identify other methods of effectively reducing the risks presented by those hazards.

Potential hazards	Possible features
Carrying loads over unnecessary distances.	Try to get the load and the receptacle as close to each other as possible. For example, by locating car parking drop-off points as close as is practicable to the receptacles.
Unnecessary reaching and stooping.	<p>Selecting feed apertures to receptacles, so far as is reasonably practicable, to be:</p> <ul style="list-style-type: none"> ■ ideally between knuckle height and elbow height, if not possible, then: <ul style="list-style-type: none"> - between knuckle and shin height; or - between elbow and shoulder height. <p>The least desirable heights are at or near ground level, and above shoulder height.</p> <p>Keeping areas around feed apertures clear of obstructions, so that people can get close to the feed aperture and do not have to reach.</p>
Steep ramps and steps.	Are steep ramps and steps really necessary? Could more appropriate receptacles be chosen?
Lack of information to the public.	<p>Can you advise the public, by signs or other means, that to reduce the handling risks to themselves, they can:</p> <ul style="list-style-type: none"> ■ break the load down to be lighter and less bulky; ■ maybe use bags or similar to make the load easier to grasp; <ul style="list-style-type: none"> - use both hands when carrying; - avoid stooping and reaching where possible.

You can find further guidance on manual handling on the HSE website.⁵

References

- 1 *Operating civic amenity sites safely* Waste01 HSE 2006
www.hse.gov.uk/pubns/waste01.pdf
- 2 www.hse.gov.uk/workplacetransport/information/sheeting.htm
- 3 *Waste industry safety and health: Reducing the risks* Leaflet INDG359 HSE 2002 Web only: www.hse.gov.uk/pubns/indg359.pdf
- 4 *Safe transport in waste management and recycling facilities* Waste09 HSE 2004 www.hse.gov.uk/pubns/waste09.pdf
- 5 www.hse.gov.uk/msd

HSE's risk management web pages: www.hse.gov.uk/risk

The Waste Industry Safety and Health Forum (WISH) exists to communicate and consult with key stakeholders, including local and national government bodies, equipment manufacturers, trade associations, professional associations and trades unions. The aim of WISH is to identify, devise and promote activities that can improve industry health and safety performance.

Further information

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This document contains notes on good practice which are not compulsory but which you may find helpful in considering what you need to do.

This document is available web-only at: www.hse.gov.uk/pubns/waste11.pdf

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