

Health and Safety Executive		Sector Information Minute	
Manufacturing Sector		SIM 03/2007/09	
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To:

HSE Inspectors covering Manufacturing and Service Industries.
Specialist Inspectors (Occupational Hygiene, Medical, Occupational Health).

FINDINGS FROM THE INSPECTION INTERVENTION IN THE WASTE/ RECYCLING INDUSTRY (2005/6)

This SIM should be read in conjunction with SIM 03/2004/21 & SIM 03/2006/03.

BACKGROUND

In the period 1 April 2005 to 31st March 2006, HSE FOD inspectors visited both local authority clients and operators of waste and recyclates collection activities throughout Great Britain as part of a phased initiative with the industry.

This inspection initiative was undertaken to address key health and safety concerns associated with the collection and processing of materials from municipal waste disposal and recycling schemes. During this phase over 60% of local authorities were visited, many of whom had volunteered to have their services scrutinised in the interests of improving their health and safety performance.


This document gives the findings from year 1 (the initial visits to clients and contractors) of this 3-year initiative. Year 2 will comprise of a mixture of initial visits to clients and contractors not seen in year1, and follow-up visits to those who were seen.

In year 1, visiting inspectors completed 268 returns: the findings were aggregated and appear in the appendix to this document.

Assessment of performance was made using the criteria within the inspection report form.

SUMMARY OF KEY FINDINGS

Comments are made later, in the appendix, on these highlights. In brief:

- Assessment of the various collection, transfer, treatment and processing systems available should be made to ensure that authorities select the most appropriate system for their environment. This was an area identified as requiring attention in a very large number of authorities. The assessment should be made with proper consideration of factors such as recycling performance, value for money and health and safety.
- Hardware provision and its maintenance was an area where performance was reported as good where it was stipulated by the authority. However, there were some cases where the identification of suitable hardware controls was not adequate (e.g. cut resistant leg protection, hygiene provisions etc).
- Authorities were generally weaker on the software control measures and management arrangements than hardware provisions.
- Client and contractor coordination and cooperation can be improved.
- Management of the crews was weak in many cases. In particular improvement is needed to ensure:
 - sufficient and suitable monitoring of activities away from the depot,
 - clarity of the supervisors role, and
 - the exercise of supervisory duties
- Health and welfare provision is inconsistent throughout the industry. Collectors are expected to take this risk into account in their vehicle procurement plans, and should have considered longer term retro-fitting programmes based upon risk assessment and accident/incident history.
- Reversing continues to be a major cause of serious injuries and fatalities in street collection. The evidence collected is that there was not effective control of reversing operations. Since completion of the first phase guidance has been produced which clearly sets out reversing can be carried out safely, including the use of reversing assistants. <http://www.hse.gov.uk/pubns/web14.pdf> 

ACTION REQUIRED

Inspectors should continue with inspections as outlined in SIM 03/2006/03 and use the data in this SIM to inform their inspection process in 2006/7 and beyond.

SECTOR CONTACTS

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Appendix 1: Findings from the inspection intervention in the waste/ recycling industry (2005/6) – SIM 03/2007/09

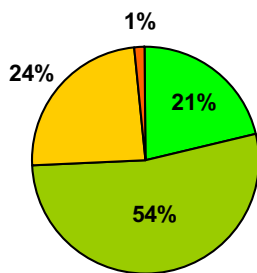
Street Collection of Waste & Recyclables: First year returns

Results of the 268 returns made in phase 1 (2005/6) of the initiative.

Assessment Scale			
Each risk control indicator should be assessed against the following 1-4 scale. A score of 1 should satisfy all the appropriate criteria of the risk control indicator.			
1	2	3	4
Full compliance in areas that matter	Broad compliance in areas that matter	Some compliance in areas that matter	Limited or no compliance in areas that matter

Management of contracts

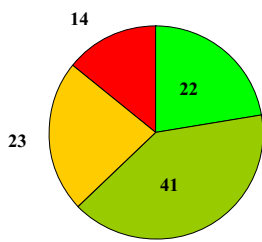
1 Induction training: All new staff (full time, casual and agency) receive sufficient induction training whether employed by client or contractor



Commentary. Improvement can be achieved in this area. 25% of the sample were assessed as providing less than satisfactory training. Anecdotal commentary suggested that this was largely as a result of “casual” or agency staff being used to supplement regular staff. Occasionally, comments were made regarding the increasing use of foreign staff. Risks could be controlled by:

- Improved front-line supervision
- Improved communication, especially with those with an imperfect command of English (e.g. diagrammatic toolbox talks, use of bilingual staff to translate.)

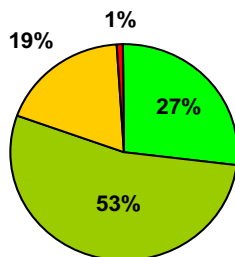
2 Evidence that client checks induction training is carried out



Findings. Nearly 40% of clients could make improvements in monitoring to ensure that adequate induction training is carried out. 14% of clients were considered by HSE inspectors as failing to discharge their legal duties. It appears that clients either were unaware of the legal requirements placed upon them by the Management of Health & Safety at Work Regulations, or did not carry them out adequately.

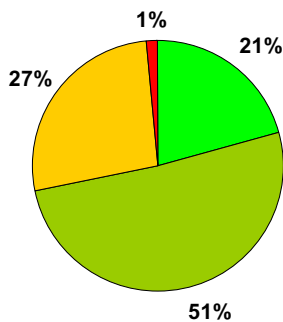
Expectation: Improved performance to comply with legal obligations is expected. HSE inspectors may need to exercise their enforcement powers if substantial improvement is not apparent.

3 Supervisors roles are clearly defined



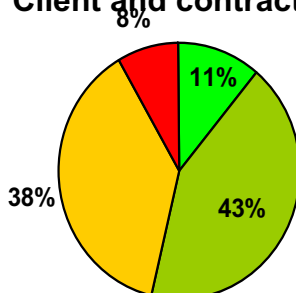
Commentary: 20% of activities observed found supervisory staff did not have an adequate definition of their responsibilities to ensure that safe working practices were followed.

4 Supervisors are aware of their duties and exercise them



Commentary: If supervisors are not aware of the extent of their duties to ensure compliance with safe systems of work etc (as indicated above) it is unlikely that those duties will be carried out.

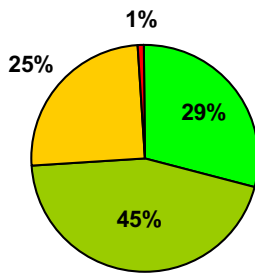
5 Client and contractor monitor effectiveness of supervision



Findings: 44% of activities observed were assessed as having inadequate systems to monitor the effectiveness of the supervision of street collection crews. If insufficient monitoring is carried out, then it cannot be ensured that safe systems of work are used.

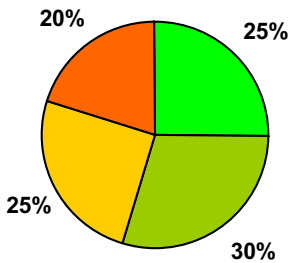
Expectation: Improvement is required in this area. Inspectors may seek review/ improvement of monitoring arrangements of both client and contractor. Co-operation and co-ordination between client and contractor may need to be examined.

6 Evidence of effective procedure for reporting defects, non compliant actions etc



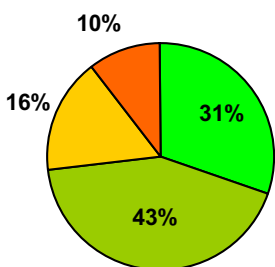
Comment: There is room for improvement in this area. Although there are usually sound procedures in place for reporting important equipment (hardware) failures, there was anecdotal evidence that reporting of non-compliant acts was not adequate. Firm evidence that reporting procedures in place and are being regularly used to review systems was missing in many cases.

7 Evidence that collection options are risk assessed before being specified in the “invitation to tender.”



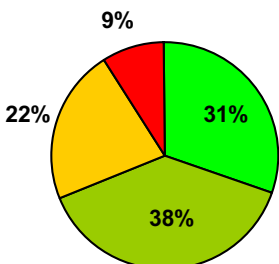
Findings: The evidence that health & safety implications of the collection rounds are considered at an early stage is scant. The manner in which waste and recyclates are collected has implications for the health and safety of the staff employed.
Expectation: HSE field inspectors should consider the decision making process used by clients and contractors to ensure that the collection systems adopted are the most appropriate.

8 Best value contract selection includes assessment of health and safety arrangements (risk assessments, method statements, management arrangements etc). Evidence of competent H&S input.



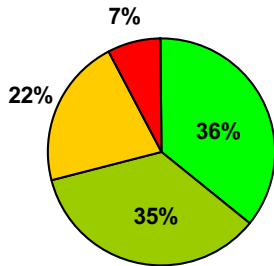
Commentary: Just over a quarter of returns indicated that contract selection did not adequately cover health and safety arrangements: 10% were considered to be non-compliant with the law.
Expectation: Clients should assess the measures used to manage health and safety when selecting contractors: this is likely to require the input of the organisations health and safety professional.

9 Clarity of health and safety roles of the client and contractor



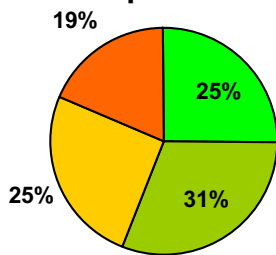
Commentary: Another example which indicates either a lack of understanding of the legal requirements of the MHSW, or a failure to put that knowledge into practice. These findings seem to support the comments to pie charts 5 & 8 above.

10 Flexibility within the contract to change in response to emerging health and safety issues



Commentary: Contracts should permit alteration to reflect the need to improve/ adjust following operational experience, accidents/ incidents, reassessment, improved technologies and changes in standards. This will allow services to develop as knowledge and experience develops without penalising the contractor for contract alterations.

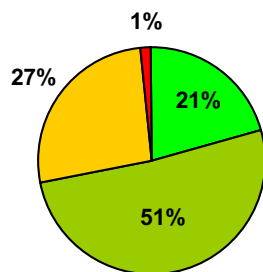
11 Effective monitoring of contractor performance by the client to ensure compliance with H&S control measures. Evidence of competent H&S input.



See pie chart 5

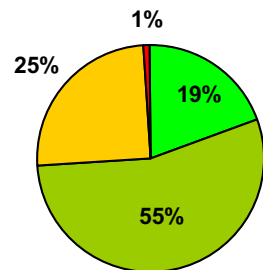
Transport and collection

12 Risk assessment of activities



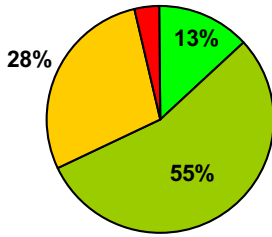
Comments: Over a quarter of those visited had not suitably/ sufficiently risk assessed their activities. The major regulations requiring risk assessments of work activities include Management of Health and Safety at Work Regulations 1999; Manual Handling Operations Regulations 1992; Personal Protective Equipment at Work Regulations 1992 <http://www.hse.gov.uk/pubns/indg163.pdf>

13 Training of operators



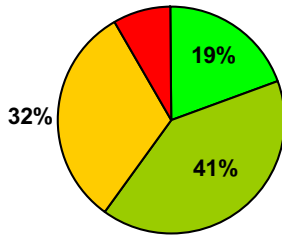
Comments: Training given to staff is inconsistent throughout the industry. The adequacy of training given differs markedly from operator to operator, although most do give a basic level of training. Over a quarter of activities assessed raised questions about the depth and suitability of that training. (Also see items 1, 2 and 6) above)

14 Effective Supervision (within collection team)



Comments: The responses on this question are consistent with the findings above (3 & 4) and confirm the lack of clarity in the role of the supervisor/ chargehand.

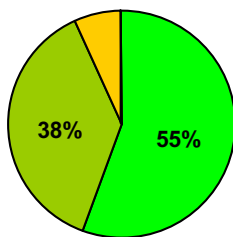
15 Monitoring of controls by client



Findings: The findings reported by HSE inspectors were consistent with their responses in item 5 above.

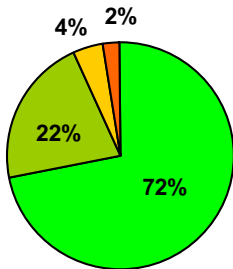
Expectation: Once the contract has been agreed, then ongoing coordination and cooperation between client and contractor should be provided.

16 Vehicles have 360 vision where necessary



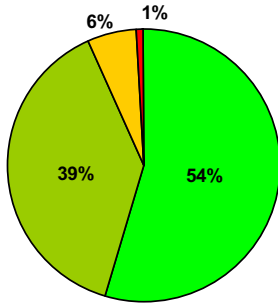
Comments: Returns indicate that for rear-loaded refuse collection vehicles (RCV's), all round vision is provided as specified in BSEN 1501. However, there are now increasing numbers of recycling vehicles being used which are not subject to the requirements of BSEN1501, yet are still used in similar circumstances. One successful prosecution has supported the case that it is reasonable and practicable to use CCTVs on vehicles (other than RCVs) where 360 vision is not otherwise achievable. CCTVs improve the driver's view when reversing and can minimise collisions with pedestrians (both staff and the public). More detailed commentary on "best practice" in reversing collection vehicles is given in "Waste and recycling vehicles in street collection" <http://www.hse.gov.uk/pubns/web14.pdf>

17 CCTV provided to observe working area at rear of RCV's.



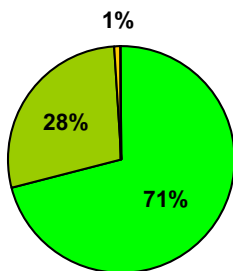
See comments at 16 above.

18 CCTV, mirrors, alarms, beacons, brakes, lights etc checked daily & maintained. Hoist checked daily, examined by competent person and maintained. Records kept



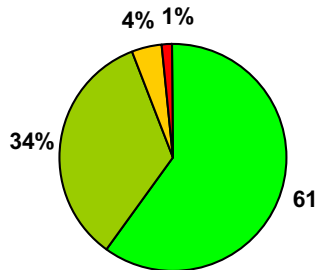
Commentary: Evidence of hardware checks being carried out.

19 Any reversing alarms and beacons fitted are functioning



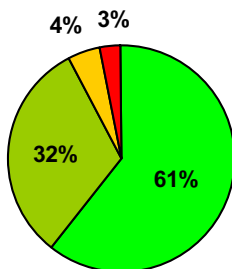
Comments. Good level of compliance on this hardware control measure.

20 Bin and skip hoist controls exclude operator from trapping zone.



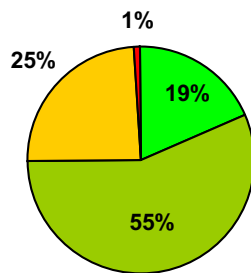
Commentary: BS EN1501 applies to rear loaded refuse collection vehicles.
<http://www.hse.gov.uk/pubns/web17.pdf> provides further guidance.

21 Hoist compatible with the type of container and able to lift on slopes where operated



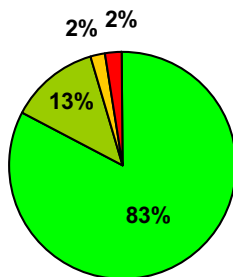
<http://www.hse.gov.uk/pubns/web17.pdf> provides further guidance.

22 Collection of containers from nearside kerb only, so far as reasonably practicable to reduce crossing or working within the road



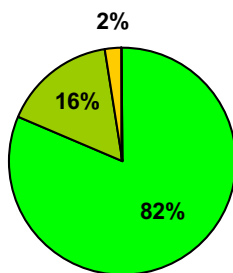
Comments: The risk of being struck by other vehicles can be reduced by single (nearside) working only. Risk assessments should establish where this is necessary. WISH is likely to identify criteria to be considered when determining if a road should be single or dual side collected.

23 Riding on vehicle within cab only (no footboards).



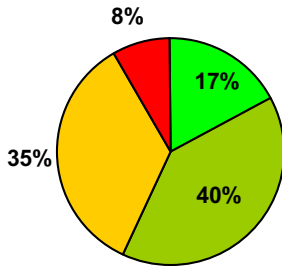
Comments: The use of riding-footboards is considered by HSE, employers, employee bodies and manufacturers to be an unacceptable risk to worker safety. Consequently, UK vehicles are not supplied with footboards. Vehicles should be designed and manufactured to prevent this activity.

24 High visibility clothing



Comments: High visibility clothing should be provided and worn by collection workers at all times. This is likely to consist of high visibility jackets and leggings with reflective strips.

25 Trained reversing assistants used when reversing in the vicinity of pedestrians



Findings: Significant improvement is needed in this area to ensure the safety of pedestrians when collection vehicles operate in areas where the presence of pedestrians is foreseeable. Returns indicate that there is confusion as to:

- When collection staff should assist reversing operations and
- The degree of training required.

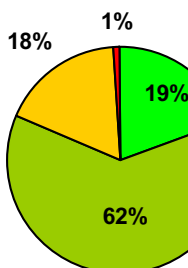
Commentary: In June 2006 the WISH Forum published “best practice” guidance that confirms the role of collection staff, their training and safe systems of work for manoeuvring collection vehicles where it is foreseeable that pedestrians may enter the vehicles reversing zone (www.hse.gov.uk/pubns/web14.pdf). The guidance establishes the role of “reversing assistants,” who are tasked with warning/ preventing pedestrians from entering the reversing zone, and signalling STOP to the driver when it is unsafe to reverse. Reversing assistants are distinct from banksmen (who require additional training). All local authorities and collection organisations should be aware of this guidance.

Expectation:

- clear risk assessments indicating the circumstances in which reversing assistants should be used
- adequate training
- reversing assistants used where necessary and reasonably practicable (e.g. crewed vehicles.)

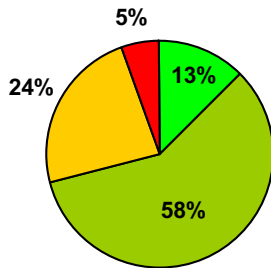
It is likely that the FOD 2007/8 inspection programme will target this issue.

26 Organisation of work routes to avoid areas/ times of high risk



Findings: Although most rounds have been organised to avoid areas at times of highest risk (e.g. school start/finishing times, high streets during shopping hours etc.), a substantial minority have not. Improvements can be made in this area to minimise risks.

27 Elimination/ reduction of reversing at depots.

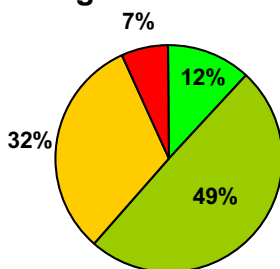


Findings. HSE has, for a number of years, published a wide range of guidance to assist industry reduce moving traffic accidents at premises which they have control over (as opposed to traffic safety on the public street where control of activities can be compromised). Returns show that a significant minority of dutyholders have improvements to make in depot traffic management.

Expectation: Enforcement action is likely in the absence of, or failure to adopt, reasonably practicable measures and procedures to segregate vehicles and pedestrians, eliminate/ minimise reversing, or use other suitable control measures.

Manual Handling

28 Evidence of manual handling training techniques used for the range of container types collected

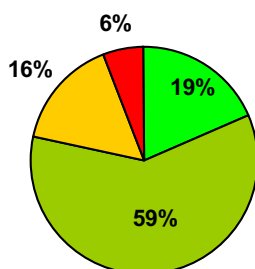


Findings: Work is required in many organisations to ensure that the manual handling training provided is specific to the containers used.

Commentary: Manual handling is a major cause of injury in the industry. The risks can be controlled by providing equipment less likely to cause injury (see 29,30,31 below). Where residual risks remain, then training, specific to the receptacle should be provided.

Expectation: Provision of manual handling training appropriate for the task and equipment provided.

29 Ergonomic suitability of the vehicle for sorting/ loading, e.g. height of rave rail, height of sorting surface, placement of stillages.



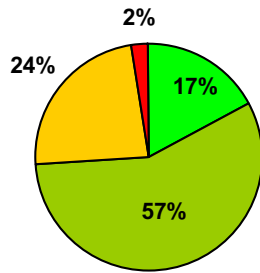
Findings: Over one fifth of returns indicate ergonomic improvements are required. Negative returns were mainly associated with the ergonomics of kerbside recycling vehicles.

Comments: Most vehicles seen were RCVs, many fitted with bin hoists and similar lifting aids. Operating with compaction mechanisms on “automatic” or with bin hoists fitted can result in rave rail settings being unsuitable for manual loading.

A wide range of recycling collection vehicles are now in use. Many of these have not used sound ergonomic principles in their design. HSL report “Manual handling in kerbside collections” sets out principles of design (www.hse.gov.uk/research/hsl_pdf/2006/hsl0625.pdf)

Expectation: Purchasers are expected to have a procurement policy which takes into account ergonomics. Reasonably practicable alterations to some existing vehicles may be possible to minimise musculo-skeletal injury risks.

30 Ergonomic suitability of container for anticipated contents (frequency of collection, waste collected)

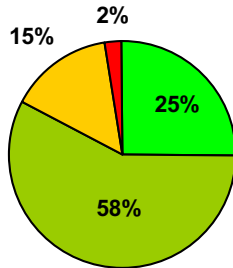


Comments: As the proportion of domestic waste for recycling increases, the challenges for the industry to control the risks associated with manual handling, and postural problems whilst sorting waste, is likely to increase.

Expectation: Risk assessment should be used to identify areas where risk of musculo-skeletal injury needs to be controlled. The HSL report

http://www.hse.gov.uk/research/hsl_pdf/2006/hsl0625.pdf provides information relating to design of receptacle, weights, posture, vehicle interface, distances etc.

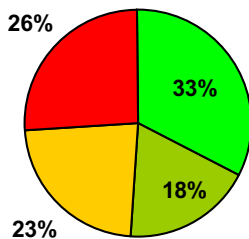
31 Maintenance of container (wheels, handles etc).



Comments: Very simple checking systems can reduce the risks of musculo-skeletal injury arising when containers, or their parts, fail. Systems of planned maintenance and checks of larger wheeled bins, or even a simple fault reporting system with a prompt replacement/repair service for smaller containers, can identify patterns of wear allowing a remedy to be effected before failure.

Health and Welfare

32 Wash basins provided on vehicles

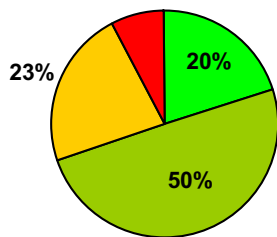


Findings: Adequate welfare facilities are not provided on a large number of vehicles. Feedback from inspectors and industry indicates that employee awareness and personal hygiene culture should be addressed to ensure facilities are used.

Commentary: Because of the hazards associated with handling wastes, adequate provision should be made for removing contaminants from the skin, e.g. faeces, bio-hazards, aggressive alkalis and acids (e.g. bleach, paint strippers, battery acid etc.). At one activity visited, nearly a quarter of lost working days were attributed to gastro-intestinal illness - none of these exceeded 3 days in length and were therefore not RIDDOR reportable.

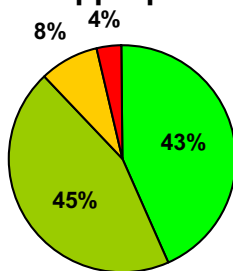
Expectation: Hand basins with a water supply and cleansing materials should be provided and used. Experience has shown that the basin should be sited in a cabinet/ locker that protects it from contamination. It is reasonably practicable to provide water and handbasins in most cases – only when there is no foreseeable risk could antiseptic wipes alone, be acceptable. The importance of good personal hygiene should be stressed to staff and use of facilities encouraged. Hand cleanliness should be ensured before hand-to-mouth contact (eating, drinking, smoking).

33 The round is organised to permit reasonable access to toilet facilities



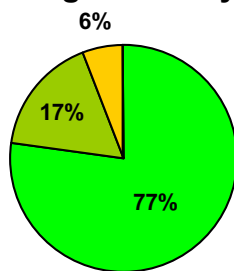
The expectation is that route planning and/or managerial arrangements should permit reasonable access to toilet facilities.

34 Appropriate and sufficient first aid materials available on vehicle



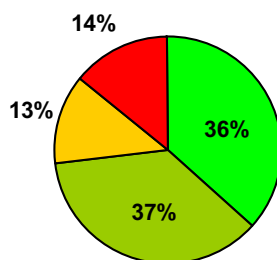
Expectation: First aid kits should be on the vehicle and kept stocked. Responsibility for re-stocking should be clear.

35 High visibility clothing provided and worn



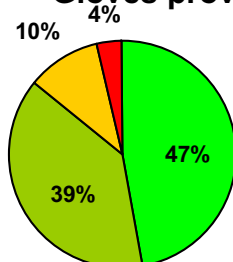
Expectation: Enforcement action is likely if high visibility clothing is not provided or worn.

36 Ballistic trousers provided and worn when risk of leg cuts



Comment: Cuts, including leg cuts, remain a substantial contributor to accident statistics. Collection staff on bag rounds were still found without leg protection in many areas where use was necessary.
Expectation: Trousers, providing protection to the upper leg should be worn on all bag rounds where there is a risk of cuts. Some trousers provide a high degree of cut resistance –others incorporate cut-resistant panels along the outer leg (these could be of a high visibility material).

37 Gloves provided and worn when directly picking up refuse



Comment: Gloves are virtually universally provided, but not always worn in appropriate circumstances.