

## **Workplace transport struck by initiative**

**SIM 3/2006/08**

**Target Audience:**

**HSE and LA Inspectors covering Manufacturing, CACTUS and Service Industries**

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This SIM alerts inspectors to the first phase of the new initiative on workplace transport. It provides details on the background, aims, objectives and approach for this initiative focusing on preventing Struck By incidents in 2006/07.

## **Background**

1 Statistical analysis of RIDDOR data (2004/05 provisional) has identified that people being hit or run over by workplace vehicles result in 41% of all workplace transport incidents. To meet the workplace transport contribution to the Public Service Agreement targets, we should focus on reducing the numbers of these incidents.

2 This initiative is part of a 2-year project running from April 2006 - March 2008 and it will be extended to include, in the second year, falls from vehicles, a national publicity campaign on workplace transport and the workplace transport routemap (expected to be launched later in 2006/07).

## **Application**

3 The project covers transport activities undertaken in the manufacturing sector and parts of the service industries (e.g. waste disposal). It does not extend to the movement of freight, warehousing, storage, etc, as these will be covered by the Moving Goods Safely initiative from November 2006 until July 2007.

4 The project does not include agricultural or construction activities as different approaches are being pursued - HSE staff should see the relevant parts of the 'Other HSE-enforced Industries' and the 'Construction' Business Group Delivery Plans (BGDPs).

## **Action required**

5 Statistical analysis has identified several large employers (about 4/5 per HSE Division) who have a significant number of workplace transport incidents. Divisions and, where appropriate, LAs, have been provided with information on these companies. Inspectors will undertake an audit of such employers, when their policies and procedures for controlling workplace transport risks will be assessed against the precautions that are actually observed on site. A structured questionnaire has been produced to apply this audit technique. Please note that a number of LOPP and FOILE companies have been identified (and annotated on the list of companies to be audited). The relevant account manager or lead inspector will need to be contacted and a way forward for the inspection agreed.

6 For small/medium-sized companies, inspectors should use the inspection template at Appendix 3 to assess control of struck by vehicle risks. For some companies, it may be appropriate to send the pre-visit letter and checklist , (see Appendix 2) but this is left to

local discretion. (Note: this checklist is different from that appearing on the HSE website. It has been tailored for the project to focus on struck by vehicle incidents). The letter is intended as a primer and a reply is not expected.

7 During the visits, inspectors should:

- Use the template to guide the inspection where the topic (in column 1) is relevant to that site
- Allocate a score to the control of the topic, as described on the bottom of the form, with the score taking account of all the sub-categories under that topic.
- Use the associated technical guidance (see Appendix 4) where a solution is not immediately obvious. This guidance, includes much information that is available in the Workplace Transport Topic Pack , but in a more accessible form. (However, some of the guidance will be more relevant to larger sites).

8 The scores on the inspection template should be used to derive the Risk Control Indicator (RCI) scores as follows:

- Any scores in parts 2, 5 and 6 should be averaged and rounded up or down to the nearest whole number to become the 'safe site' RCI rating
- Any scores in parts 3 and 4 should be averaged and rounded up or down to the nearest whole number to become the 'safe vehicle' RCI rating
- The score in part 7 is the 'safe driver' RCI rating
- The score in part 1 feeds into the inspector's overall assessment of H&S management

9 In the HSE database COIN the keyword for this intervention is 'struck by'.

10 For the HSE completed scoresheets should be filed locally and the inspection report forms (IRFs) should be completed as normal.

11 Information on the SMEs to be targeted is given in the Manufacturing and 'Other HSE Enforced Industries' BGDPs. Inspectors should plan their visits on the basis that using the template at a medium-sized employer will take about 2-3 hours, whilst an audit will take at least a day (and it will therefore not be possible to 'bundle' this work with other H&S topics at a single visit).

12 Before carrying these visits, HSE Inspectors should remind themselves of the contents of the Health and Safety Policy Supplement for Site Visits on the Intranet. LA Inspectors should follow local rules on health and safety for site visits. This SIM alerts inspectors to the first phase of the new initiative on workplace transport. It provides details on the background, aims, objectives and approach for this initiative focusing on preventing Struck By incidents in 2006/07.

## **Enforcement management model (EMM) guidance**

13 Workplace transport is a mature topic and it is expected that formal enforcement (notices and prosecution) will play an active part in the delivery of this initiative, securing dutyholders' compliance and effecting the necessary reduction in workplace injuries.

14 The inspection template should be used to judge conditions across the site, identify problems and inform enforcement action in accordance with the EMM.

15 Workplace transport poses a significant risk of substantial harm if not properly controlled and the standards of control are well known in industry. These factors should inform decisions on the EMM, the 'risk gap' and the initial enforcement expectation.

16 The maturity of this topic and the need to make significant impact on the numbers of deaths and major injuries arising from the use of workplace transport are strategic factors influencing the **final** enforcement decision. It is therefore expected that the outcome of the EMM will be formal enforcement, at least in the form of a notice, where, for example:

- Any item is scored as '4' on the IRF form
- Pedestrian/vehicle segregation is clearly inadequate
- The employer has no system for maintaining vehicles in a safe condition
- Drivers have not been suitably trained to operate the vehicles they are using.

17 Improvement Notice templates 1, 3 and 4 in the topic pack are relevant - template 4 will need modifying if the vehicle is not subject to the fork lift truck ACoP (L117).

## **Programme strategy**

18 This targeted intervention is part of a strategy being run by the Workplace Transport Priority Programme to reduce the number of struck by vehicle incidents. Other actions being taken that have direct relevance to this initiative: -

- Revised versions of HSG136 'Workplace transport safety - Guidance for employers' and INDG 199 "Workplace transport safety - An overview" were published on 12 December 2005.
- A 'Safe Site' tool has been launched on the HSE website providing some 'before-and-after' examples of sites where incidents have occurred to help duty holders think and talk about vehicle safety in the workplace. The scenarios are all based on events reported by inspectors.

## **Contacts**

19 For further information on Operational issues please contact; Rachel Corbridge or Jayn Johnson, Safety Unit (IR5), Grove House, Manchester, VPN 516 8227/ 8303 or David Sowerby, FOD Delivery Partner VPN 518 6249.

20 For further information on Policy related issues please contact Carol Grainger or Colin Chatten, Workplace Transport Team, Injuries Reduction Division, \*NW Rose Court, 2 Southwark Bridge, London, SE1 9HS. VPN 522 6992 / 522 6840, tel 020 7717 6992 / 6840 or carol.grainger@hse.gsi.gov.uk / colin.chatten@hse.gsi.gov.uk.

➔Appendix 1a←

**Appendix 1b – Workplace Transport Audit Score Sheet**

Broad RCI Equivalence		(1) Strong evidence of compliance	(2) Compliance on most issues that matter	(3) Limited evidence of compliance	(4) No evidence of compliance
Policy/Purpose		As for (2), plus sets specific objectives for control of WPT risks, commits resources and commits senior management to visible leadership.	Policy (written or “understood”) recognises that workplace transport risks exist, accords importance to preventative measures, allocates responsibilities and cross-references to rules and standards.	Policy (written or “understood”) includes some reference to WPT but policy not well developed and no evidence that relative priority of WPT has been recognised.	Employer’s policy (written or “understood”) fails to recognise WPT risks.
Organising	Control	As for (2) plus individuals accept their responsibilities, know how to discharge them and are assessed on them.	Proper allocation of responsibilities and training for them.	Some ad hoc allocation of relevant responsibilities.	No management responsibilities allocated.
	Competence	As for (2), plus refresher training and access to specialist advice/support.	Competence framework in place for drivers, mechanics, supervisors and managers with duties in the policy.	Driver certification required but little else.	No employer competence framework applied to workplace transport issues.
	Communications	As for (2), plus contact with regular visitors in advance and inviting staff feedback on the sites they visit.	Visiting drivers talked through site rules, employees encouraged to report defects and make recommendations.	Communications limited to signs on the site.	Working level staff don’t know that rules/procedures exist.
	Co-operation	Employees feel they own the rules, feel their views are valued and difficult issues are considered fully.	Employees actively involved in risk assessment process, and arrangements for on-going feedback exist.	Consultation through formal procedures only.	No employee involvement in workplace transport issues.
Planning/Implementation		As for (2), plus evidence of active tracking of progress, and of the implemented measures having been reassessed to make sure they were effective.	Risk assessment undertaken. Improvements required have been documented, prioritised and higher priority items addressed.	Evidence of some improvements having been made, but not as a result of a comprehensive transport risk assessment or in a prioritised order.	No evidence of a risk assessment having been conducted/recorded.
Rules and Standards	Safe site	As for (2), plus additional features such as parking zones, fixed mirrors and active supervision.	Extensive site rules, including one-way systems, good pedestrian segregation, lighting and hi-vis. rules.	Limited site rules, eg. speed limits and road markings.	No rules exist.
	Safe vehicle	As for (2), plus drivers involved in vehicle selection and drivers encouraged to suggest improvements.	As for (3), plus planned preventive maintenance and daily driver safety checks.	Suitable vehicles for different tasks.	No rules exist.
	Safe driver	As for (2), plus periodic refresher training and periodic checks on safe driving behaviours.	Driver certification, pre-employment medicals and induction as to site rules.	Driver certification required but little else.	No rules exist.

Monitoring performance	Routine collection of a comprehensive range of proactive and reactive performance data, against an agreed scheme. Behavioural issues included. Reports include recommendations for improvements.	Accident and near miss data collected routinely. Workplace transport questions included in work site conditions surveys. Accident reports include remedial measures.	WPT related accidents reported. Accident data collected together in annual statistics.	No evidence of workplace transport safety standards monitoring (active or reactive).
Audit and review	Independent audits including workplace transport. Proactive and reactive data reviewed by senior management on a regular basis. Evidence of policy and procedure being reviewed as a result.	Arrangements for periodic review based on accident and other active monitoring data. Seen to be working in practice.	No systematic approach, but ad hoc actions taken in response to reported complaints and accidents.	No arrangements for audit and review. No evidence of managerial interest.

## Appendix 1c – Workplace Transport Struck by Initiative: structured audit questions

### P. Policy/purpose

- P1 Does the employer have a policy for workplace transport safety (WTS)?
- P2 What are the main provisions of the policy?
- P3 Who prepared it?
- P4 Has a named person been given overall responsibility for implementing the policy at each site?
- P5 Does the company have comprehensive company rules, procedures and standards for ensuring:
- Safe site?
  - Safe vehicles?
  - Safe drivers?
- P6 Are the **purposes/aims** of the rules and procedures clear, understood and accepted by employees at all levels?
- P7 Does the policy set any objectives for WTS?
- P8 What evidence is there of senior management's commitment to ensuring WTS? Eg. by:
- the level of resource they commit to WTS?
  - personal participation in site safety tours/audits that look at WTS?
  - issuing personal messages to the workforce on WTS?
  - always challenging and investigating any unsafe behaviours they encounter?
  - setting a personal example by always obeying WTS rules themselves?
- P9 What is the workforce's perception of senior management's level of commitment to WTS?
- P10 Do senior managers consider there to be any significant obstacles to achieving or maintaining satisfactory standards of WTS?
- P11 What do they consider those obstacles to be and how do they plan to tackle them?

### O. Organising

#### Control

- O1. Is WTS seen and accepted as a **management** responsibility?
- O2. Have responsibilities for all aspects of WTS (safe site, safe vehicles, safe drivers) been clearly defined and allocated to the appropriate managers, supervisors and other employees?

- O3. Do these individuals understand and accept their responsibilities for WTS?
- O4. Are they held accountable for their personal performance in relation to WTS,
- actively (e.g. via personal performance appraisal)?
  - reactively (e.g. through disciplinary procedures)?

## **Competence**

- O5. Does the company have an overall *system* for providing and maintaining appropriate levels of management and employee competence (arrangements for recruiting managers and employees with the required competences, identifying and meeting training needs including by refresher training, validating and evaluating training, identifying and meeting personal development needs etc)?
- O6. Does the system include arrangements for providing and maintaining competence in relation to WTS in particular?
- O7. Is the system for ensuring competence delivering what is required in relation to WTS? In particular:
- Do managers and supervisors have the necessary competence (knowledge, skills and experience for managing and supervising WTS)?
  - Do existing drivers hold the necessary licences or certificates for the vehicles they have been authorised to drive?
  - Do recruitment procedures ensure that new drivers have the required levels of fitness and previous experience as well as the necessary licences or certificates for the vehicles they will be required to drive?
  - Do those individuals who are responsible for maintaining and inspecting vehicles have the required competence (knowledge, skills and experience)?
- O8. Are the appropriate managers familiar with current legal standards and published guidance on WTS? Do they have access to sources of specialist advice and support if they require it?

## **Communications**

- O9. Are the policies, rules and procedures governing WTS communicated effectively to employees at all levels, contractors and visitors?
- O10. Are there effective arrangements for communicating with hauliers and other employers whose drivers visit the company's site(s) to explain company WTS rules and any preconditions in advance?
- O11. Do hauliers and employers of visiting drivers act on this information or does more need to be done?
- O12. What are the arrangements for communicating critical site WTS rules and messages to visiting drivers when they arrive at the site?
- O13. How are important site WTS rules and arrangements communicated to visiting drivers whose first language is not English?

- O14 How does the company obtain information about the WTS rules and procedures at other employer's sites and how is this information communicated to their own drivers?
- O15 What arrangements are there for the company's drivers to report their concerns about any WTS issues they encounter at other sites they visit? How does the company act on these reports?
- O16 What are the arrangements for recording and reporting vehicle defects identified at any time e.g. by the driver during pre-use checks or subsequently or by maintenance staff during routine maintenance checks? What are the arrangements for prioritising and implementing remedial work?
- O17 What are the arrangements for recording and reporting problems with WTS measures on site (e.g. damaged barriers, signs, road surfaces, markings etc)? What are the arrangements for prioritising and implementing remedial work?
- O18 Are site traffic routes clearly marked where required?
- O19 Are road signs, as described in the Highway Code, provided where necessary on site to indicate hazards, one way traffic systems, speed limits, pedestrian crossings, no entry points, road junctions etc?

## **Cooperation**

- O20 How does the company consult employees and their representatives on WTS issues? Are the arrangements effective? Do employees consider them to be effective?
- O21 How does the company encourage the active involvement of employees at all levels in WTS? (e.g. involvement in assessing WTS risks, drawing up the rules, solving WTS problems, workplace inspections and audits, investigating incidents etc)?
- O22 Do employees feel that they own/value the WTS rules or do they regard them as rules that have been imposed on them by management?
- O23 How does the company ensure that timings and work scheduling does not put pressure on their drivers (or drivers employed by others) to drive too quickly or for too long periods without adequate breaks? Has this ever been reviewed?

## **PI. Planning and implementing**

- PI 1 Has a suitable and sufficient assessment of WTS risks been performed and are the significant findings recorded?
- PI 2 Have the results of the risk assessment been used, as appropriate, to:
- determine the additional WTS precautions required?
  - decide the improvements needed to existing WTS precautions?
  - set priorities for implementation?
  - schedule implementation?

- PI 3 Where necessary does the company's current H&S improvement plan include actions for reducing WTS risks and are the priorities for implementation determined by the assessed level of risk?
- PI 4 Are there effective arrangements for tracking progress with implementation of improvement plans, and have WTS risks been reassessed to ensure the improvements have had the desired effect?

## **Rules and standards**

### **Safe site**

- PI 5 Have one-way systems been provided to the greatest extent that is reasonably practicable and have turning circles and reversing zones been designated?
- PI 6 Is there effective segregation of pedestrians from moving vehicles across the company's site(s)? Are there places where segregation can be improved?
- PI 7 Are pedestrian barriers and pedestrian crossings provided where required?
- PI 8 Is there a safe pedestrian route that allows visiting drivers to report for instructions/directions before entering the site?
- PI 9 Are there suitable parking areas and spaces for all vehicles? How often are they insufficient to meet demand and what happens then?
- PI 10 Are lighting levels in each area sufficient for the vehicle activity?
- PI 11 Are traffic routes wide enough, well maintained and profiled to suit the size of vehicle using them?
- PI 12 Are there effective arrangements for keeping traffic routes free from obstructions and other hazards?
- PI 13 Are features such as fixed mirrors to improve vision at blind corners and road humps to limit vehicle speed provided where necessary?
- PI 14 Where provision of reversing areas cannot be avoided are they marked clearly for both drivers and pedestrians?
- PI 15 Are there effective arrangements for excluding non-essential personnel from reversing areas?
- PI 16 Where a banksman is required for reversing (e.g. where visibility aids such as CCTV are not fitted to vehicles to eliminate the blind spots) have they been adequately trained and are they clearly visible to the driver?
- PI 17 Are loading and unloading operations carried out in an area away from passing traffic, pedestrian and other people not involved in the loading/unloading activity?
- PI 18 Are there effective arrangements for quarantining a lorry that has arrived with an unstable load in a safe area while a competent manager/team assesses the risks and devises a safe system of work for dealing with the situation?
- PI 19 Is loading and unloading carried out on ground that is flat, firm and free from potholes?

- PI 20 Are there rules to ensure that drivers and others are in a safe position away from the vehicle while unloading takes place (enabling observation of loading if necessary)?
- PI 21 Are vehicles being loaded or unloaded braked and, where necessary, stabilised to prevent unsafe movements?

### **Safe vehicle**

- PI 22 Are there effective selection arrangements for ensuring that vehicles and their attachments will be suitable for the particular tasks undertaken? How confident are you that vehicles and attachments in current use are suitable and compatible?
- PI 23 Are all vehicles provided with horns, lights, reflectors, reversing lights, mirrors and other standard safety features?
- PI 24 Are vehicles designed to protect drivers from bad weather, falling objects or unpleasant working environments including cold, dirt, dust, fumes and excessive noise and vibration?
- PI 25 Has the need for fitting additional visibility aids (to eliminate or minimise blind spots) e.g. CCTV been assessed and, where needed, have they been fitted?
- PI 26 Are parking brakes always used properly on trailers and tractive units to prevent runaway and how does the company check that this is the case?
- PI 27 Is there an effective routine preventive maintenance regime for every vehicle carried out at predetermined intervals of time or mileage intervals?
- PI 28 Are drivers required to carry out basic safety checks before using vehicles and how do managers know that they are being carried out properly?
- PI 29 Where vehicle attachments lift people or materials there is a requirement for periodic thorough examination. What are the arrangements for thorough examination, recording, reporting and remedying defects? Are the results of thorough examination monitored and analysed to identifying commonly recurring defects? Is there any pattern to the defects being reported?

### **Safe driver**

- PI 30 Do all drivers hold the necessary licenses or certificates for the vehicles they have been authorised to operate?
- PI 31 Have checks been carried out on the previous experience of all of the company's drivers?
- PI 32 Are all of the company's drivers medically and physically fit for operating their vehicles?
- PI 33 Have all drivers been provided with site-specific and job specific training that includes provision of information about particular hazards, speed limits, parking and loading areas?
- PI 34 Have all drivers undergone refresher training where required to ensure their continued competence?

### **M. Monitoring performance**

- M1 How are WTS rules and standards monitored? e.g.:

- routine inspections/ physical conditions surveys of workplaces where WT activities take place, vehicle and pedestrian routes etc?
- periodic observation of behaviour (e.g. checking that speed limits are being observed, safe working procedures for reversing are being followed, segregated pedestrian routes are being used properly, lift trucks are being driven and operated safely)?
- periodic checks on records of planned preventive maintenance of vehicles and their attachments?
- periodic checks on training records to ensure they are complete and up-to-date?

M2 What reports/information do the leaders/senior managers receive routinely about WTS on which to base their judgements about current standards of WTS and progress with improvement plans?

M3 What is the senior management's view on how well the company's rules and procedures covering WTS are being complied with and to what extent are the standards they have set for WTS being met?

M4 What are the arrangements for reporting and investigating workplace transport accidents, incidents and near misses?

M5 Who is responsible for identifying the immediate and underlying causes, for dealing with immediate risks and for addressing with underlying causes?

M6 Do senior management receive workplace transport accident data, and do they consider that these reports give them the kind of information they need to review how well their policies and arrangements are working?

### **Audit and review**

AR1 Do periodic independent H&S audits include consideration of WTS?

AR2 Are the results of WTS monitoring and auditing adequately addressed in periodic management reviews of the overall company's H&S management and performance?

AR3 Can the company show evidence of action being taken to improve WTS as a result of management reviews?

## **Appendix 2a – Struck By Project – Pre-visit letter template**

### **Visits to help prevent ‘struck by vehicle’ accidents in the workplace**

People being hit or run over by lorries, forklift trucks and other vehicles in the workplace account for about 930 fatal and major injuries each year. Inspectors from the Health and Safety Executive (HSE) and Local Authorities are carrying out inspections in the next few months targeting the management of workplace transport activities. Workplace transport means any vehicle that is used in a work setting - it specifically excludes vehicles on the highway, air, rail or water transport.

For the next two years the HSE and Local Authorities are involved in a national initiative aimed at reducing the numbers of people struck by vehicles at work.

Experience shows that site owners sometimes do not look at loading and unloading operations and the activities of visiting drivers in their risk assessments, but these should be included. The statistics show that drivers engaged in haulage and distribution have an incident rate on a par with the most hazardous industries.

**Your site will be getting an inspection visit within the next month** [or whatever timescale]. A checklist is enclosed which covers the main factors that can contribute to incidents where people are struck by vehicles in the workplace. You may find it helpful to complete the checklist and keep it for discussion with the Inspector visiting your site. It will speed up the inspection process if copies of relevant documents (mentioned in the checklist) are readily available at the visit. References to more information are given at the end of the checklist. The workplace transport section of the HSE website is at <http://www.hse.gov.uk/workplacetransport/index.htm>. The HSE book “Workplace Transport Safety – An employer’s guide” HSG136 has just been revised (ISBN 0-7176-6154-7) and is available from any good bookshop for £11.50.

Please discuss this letter with your Trade Union or employee safety representative. If you wish to discuss any of the above, please feel free to contact me on XXXXXX.

Yours faithfully

(Name & title)

## Workplace transport 'Struck by' Project: Checklist

- The following checklist has been prepared as a guide to what employers should consider when trying to reduce the risk of people being **struck by** vehicles in the workplace. It will not necessarily be comprehensive for all work situations.
- If the answer to a question is 'No', the references under the section heading indicate where further advice can be found.
- If the question is not relevant to your workplace leave the boxes blank.

### 1 MANAGEMENT AND SUPERVISION OF WORKPLACE TRANSPORT RISK.

See references 1, 2, 3, 4, 5

**Check, in consultation with your employees, that your level of management control/supervision is adequate**

Are site rules documented and distributed? Yes  No

Are your supervisors, drivers and others, including contractors and visiting drivers, aware of the site rules? Are they aware of their responsibilities in terms of helping to maintain a safe workplace and environment? Yes  No

Has a risk assessment been completed for all workplace transport hazards? Yes  No

Is the level of supervision sufficient to ensure that safe standards are maintained? Yes  No

Are sanctions applied when employees, contractors, etc., fail to maintain these standards? Yes  No

Are adequate steps taken to detect unsafe behaviour of drivers of both site and visiting vehicles as well as pedestrians? Are the underlying reasons investigated to correct unsafe behaviours? Yes  No

Is there good co-operation and liaison on health and safety matters between your staff and those who collect or deliver goods? Yes  No

**Check what your drivers and other employees actually do when undertaking their work activities?**

Do drivers drive with care, e.g., use the correct routes, drive within the speed limit and follow any other site rules? Yes  No

Do your drivers and other employees have enough time to complete their work without rushing or working excessive hours? Yes  No

Are your employees using safe work practices, e.g., when loading/unloading, securing loads, carrying out maintenance etc.? Yes  No

Do managers and supervisors routinely challenge and investigate unsafe behaviours they may come across? Yes  No

Do managers and supervisors set a good example, for instance by obeying vehicle/pedestrian segregation instructions, and by wearing high visibility garments where these are needed? Yes  No

## 2 SITE LAYOUT AND INTERNAL TRAFFIC ROUTES.

See references 1, 2, 6, 7, 8, 9, 10

### Check that the layout of routes is appropriate

Are the roads and footways suitable for the types and volumes of vehicular traffic and pedestrian traffic using them? Yes  No

Are vehicles and pedestrians kept safely apart? Yes  No

Where necessary are there suitable pedestrian crossing places on vehicle routes? Yes  No

Is there a safe pedestrian route that allows visiting drivers to report for instructions when entering the site? Yes  No

Are there adequate numbers of suitable parking places for all vehicles and are they used? Yes  No

Is there a properly designed and signed one-way system used on vehicle routes within the workplace? Yes  No

Is the level of lighting in each area sufficient for the pedestrian and vehicle activity? Yes  No

### Check that vehicle traffic routes are suitable for the type and quantity of vehicles, which use them.

Are they wide enough? Yes  No

Do they have firm and even surfaces? Yes  No

Are they free from obstructions and other hazards? Yes  No

Are they well maintained? Yes  No

Do vehicle routes avoid sharp or blind bends? Yes  No

### Check that suitable safety features are provided where appropriate.

Are roadways marked where necessary, e.g. to indicate the right of way at road junctions? Yes  No

Are road signs, as used in the Highway code, installed where necessary? Yes  No

Are features such as fixed mirrors (to provide greater vision at blind bends), road humps (to reduce vehicle speeds), or barriers (to keep vehicles and pedestrians apart) provided where necessary? Yes  No

## 3 VEHICLE SELECTION & SUITABILITY

See references 1 & 2.

### Check that vehicles are safe and suitable for the work for which they are being used.

Have suitable vehicles and attachments been selected for the tasks which are actually undertaken? Yes  No

Do they have suitable external mirrors and additional aids where necessary, e.g. CCTV, etc., to provide optimum visibility when manoeuvring? Yes  No

Are they provided with horns, lights, reflectors, reversing lights and other safety features as necessary? Yes  No

#### 4 VEHICLE MAINTENANCE

See references 1 & 2.

**Check the level of vehicle maintenance is adequate.**

- Is there a regular preventative maintenance programme for every vehicle, carried out at predetermined intervals of time or mileage? Yes  No
- Do the drivers carry out basic safety checks before using the vehicle? Yes  No
- Where vehicle attachments lift people or materials, are thorough examinations undertaken by a competent person (e.g. your insurance company)? Yes  No
- Is there a system for reporting faults on the vehicle and associated equipment? Yes  No

#### 5 VEHICLE MOVEMENTS

See references 1 & 2.

**Check that the need for REVERSING is kept to a minimum, and where reversing is necessary that it is undertaken safely and in safe areas.**

- Have drive-through, one-way systems been used, wherever possible to reduce the need for reversing? Yes  No
- Where reversing areas are needed are they marked to be clear to both drivers and pedestrians? Yes  No
- Are non-essential personnel excluded from areas where reversing occurs? Yes  No
- If risk assessment shows site controls cannot be improved further and you need a banksman to direct reversing vehicles, are they adequately trained and visible? Yes  No

#### 6 UN(LOADING) ACTIVITIES

See references 1, 2, 4, 11, 12.

**Check that there are safe systems for LOADING and UNLOADING operations.**

- Are loading/unloading operations carried out in an area away from passing traffic, pedestrians and others not involved in the loading/unloading operation? Yes  No
- Are the load(s), the delivery vehicle(s) and the handling vehicle(s) compatible with each other? Yes  No
- Are loading/unloading activities carried out on ground that is flat, firm and free from potholes? Yes  No
- Are the vehicles braked and/or stabilised, as appropriate, to prevent unsafe movements during loading and unloading operations? Yes  No
- Are parking brakes always used on trailers and tractive units to prevent runaways? Yes  No
- Are lorry drivers and others kept in a safe place away from the vehicle while (un)loading is carried out? Yes  No
- Is there a safe area marked where drivers can observe loading (if necessary)? Yes  No
- Has the need for people to go on to the load area of the vehicle been eliminated where possible? Yes  No

## 7 DRIVER COMPETENCE.

See references 1, 2, 13.

**Check that your selection and training procedures ensure that your drivers and other employees are capable of performing their work activities safely and responsibly.**

Do drivers possess the necessary licences or certificates for the vehicles they are authorised to drive e.g. FLT's, shunt vehicles, site dumpers etc.? Yes  No

Do you check the previous experience of your drivers and assess them to ensure they are competent? Yes  No

Do you provide site specific training on how to perform the job, and information about particular hazards, speed limits, the appropriate parking and loading areas, etc.? Yes  No

Do you have a planned programme of refresher training for drivers and others to ensure their continued competence? Yes  No

### References

- 01) Workplace Transport Safety: Guidance for employers HSG 136 HSE Books 2005 ISBN 0-7176-6154-7
- 02) Workplace transport safety: an overview Leaflet INDG 199(rev1) HSE Books 2005
- 03) Five steps to risk assessment INDG 163 (rev 1) Leaflet HSE Books 1999
- 01) Delivering Safely - free download at HSE Website  
<http://www.hse.gov.uk/workplacetransport/information/cooperation.htm>
- 02) Health and safety in road haulage INDG379 Leaflet HSE Books 2003
- 03) The Highway Code. Department for Transport 1999 ISBN 0-11-552290-5
- 04) Designing for Deliveries Freight Transport Association 1998 ISBN 0 90299166 3 (£80 to members £100 to non-members from FTA phone 01892 526171)
- 05) Lighting at work HSG 38 HSE Books 1997
- 06) Safety Signs and Signals – Guidance on the Regulations L64 HSE Books 1996
- 07) The Traffic signs Regulations and general directions 2002
- 08) Guide to safe coupling and uncoupling 2005 Institute of Road Transport Engineers (due out by end March)
- 09) Code of Practice - Safety of Loads on Vehicles (third edition) 2002 Department of Transport ISBN 0 11552547 5 (free download at website:  
[http://www.dft.gov.uk/stellent/groups/dft\\_roads/documents/page/dft\\_roads\\_506864.pdf](http://www.dft.gov.uk/stellent/groups/dft_roads/documents/page/dft_roads_506864.pdf) )
- 10) Rider-operated lift trucks: operator training Approved Code of Practice HSE Books L117

### Appendix 3 – Targeted inspection guide

'Look at'	'Look for'	Benchmark	'Rating'	* Legal requirements & possible content of Notices								
1) Management of the Workplace transport (WT) risk	i) A suitable and sufficient risk assessment of the site-specific WT risks.	i) Identification of vehicle type, task and suitability. Numbers of vehicles arriving on site and identification of peak times. Identification of at-risk groups (e.g. MoP, children, foreign drivers). Identification of all reversing situations and other high-risk operations and areas. Application of hierarchy to control solutions.	<table border="1"> <tr> <td><u>1</u></td> <td><u>2</u></td> <td><u>3</u></td> <td><u>4</u></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </table>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>					i) MHSWR, reg 3 requiring a suitable and sufficient RA. - NB. Referring to a specific risk, e.g. vehicle movements in the warehouse, may make compliance checking easier.
	<u>1</u>	<u>2</u>		<u>3</u>	<u>4</u>							
	ii) Allocation of responsibility for WT and knowledge of the required standards.	ii) Clarity at all levels, knowledge of the control hierarchy and/or source of competent advice.		ii) MHSWR, reg 7-subject to reg 7(6) and 7(7) - requiring a competent person.								
iii) Site rules and control over adherence.	iii) Simple site rules brought to the attention of all drivers and pedestrians. Front line managers aware of site rules, control standards and their responsibility to ensure compliance.	iii) MHSWR, reg 5 requiring site rules as part of H&S management system. See below.										
iv) A simple means of monitoring and review to ensure continued compliance with established control measures.	iv) System for checking both physical and behavioural control measures are complied with. System for investigating WT incidents and demonstration of the implementation of any lessons learnt.	iv) MHSWR, reg 5 requiring a monitoring system as part of H&S management system										
2) Site layout and internal traffic routes	i) Space for safe vehicle and pedestrian movement.	Pedestrian/vehicle separation with routes marked and physical barriers where reasonably practicable. Separate pedestrian /vehicle exit. Traffic routes wide enough for the largest vehicle permitted to use them and wide enough to allow vehicles to pass oncoming or parked vehicles without leaving the route- no sign of damage to verges etc. Traffic routes with clear sight lines and no blind areas. Open manoeuvring areas and planned vehicle parking. Where risk is high pedestrians may have to be excluded from vehicle	<table border="1"> <tr> <td><u>1</u></td> <td><u>2</u></td> <td><u>3</u></td> <td><u>4</u></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </table>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>					i) HSWA, s2 (1) and 3(1), MHSWR reg 5(1) and Workplace Regs, reg 17 requiring organisation of traffic routes/separation.
<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>									

		operating areas.										
	ii) Pedestrian/traffic routes and manoeuvring areas are free from obstruction.	ii) Housekeeping system to ensure clear unobstructed walkways, traffic routes, manoeuvring and yard areas, both internal & external.		ii) HSWA, s2 and Workplace Regs, reg 12. requiring system of work to maintain routes.								
	iii) Good road, yard, and walkway surfaces.	iii) Firm even surface, free from potholes/ruts, made from tarmacadam, concrete or other suitable material.		iii) Workplace Regs. reg 12 requiring a suitable surface material.								
	iv) Suitable and sufficient lighting.	iv) All roads, manoeuvring areas and yards adequately lit. All lights working and clean. Absence of glare and no strong variation of light between the inside and outside of premises.		v) Workplace Regs. reg 8 requiring suitable and sufficient lighting.								
	v) Clear signage of potential hazards on traffic routes.	v) Potential hazards such as junctions, crossings indicated by suitable signs & road markings complying with Traffic Signs Regs & General Directions 2002 (i.e. Highway Code road markings and signs)		vi) Workplace Regs. reg17(4) requiring suitable signage.								
3) Vehicle selection and suitability	i) Vehicles have space to manoeuvre without driving onto pedestrian- only areas and are suitable for the terrain.	i) Vehicles of a size and type, which can manoeuvre and perform all site-based tasks without driving into any footway or pedestrian only area. Consider swept path of manoeuvring vehicle. Vehicle chosen with terrain in mind e.g. rough terrain warehouse only.	<table border="1"> <tr> <td>1</td> <td>2</td> <td>3</td> <td>4</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </table>	1	2	3	4					i) PUWER reg 4(2) requiring use of suitable work equipment.
1	2	3	4									
	ii) Vehicles have appropriate visibility for the range of manoeuvring they have to do.	ii) Vehicles have good direct visibility or adequate devices for improving vision indirectly where a risk exists and the RA shows site controls cannot be improved. E.g. External side and rear mirrors; vision aids such as CCTV; sensing devices. (NB audible warnings are not included here as they are not the preferred option for preventing “struck by” accidents)		ii) PUWER reg 28(e) to improve driver’s field of vision on site-owned vehicle, but not specifying any particular vision aid over any other. (See also OC 803/70)								

4) Vehicle maintenance	i) Vehicles are well maintained e.g. have effective brakes, clear wind- screens, effective wipers, horn and lights.	i) Maintenance system in place: <ul style="list-style-type: none"> <li>• Driver start-up checks carried out and defect-reporting procedures in place.</li> <li>• Planned preventative maintenance scheme and servicing carried out in accordance with manufacturer's instructions.</li> <li>• Inspection (&amp; thorough examination where applicable) carried out.</li> </ul>	<table border="1"> <tr> <td><u>1</u></td> <td><u>2</u></td> <td><u>3</u></td> <td><u>4</u></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </table>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>					i) Various aspects: <ul style="list-style-type: none"> <li>• PUWER reg 5 requiring maintenance (not start-up checks)</li> <li>• P/N PUWER reg 5 and HSWA s2/3 if defect gives rise to a risk of serious personal injury.</li> <li>• PUWER reg 6 requiring inspection (see OC 234/13)</li> </ul>
<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>									
5) Vehicle Movements	i) Elimination of the need to reverse, particularly in pedestrian areas, and where it cannot be avoided, minimised.	i) Knowledge of reversing activities and sensible application of the control hierarchy. Designated reversing areas with non-essential personnel excluded. Essential personnel in high visibility clothing.	<table border="1"> <tr> <td><u>1</u></td> <td><u>2</u></td> <td><u>3</u></td> <td><u>4</u></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </table>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>					i) HSWA, s2&3; Workplace Regs. Reg 7; MHSWR, reg 5 requiring assessment and application of the control hierarchy.
<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>									
6) Un/loading activities	i) Un/loading is carried out in a controlled manner.	i) Arrangements to control volume/timing of deliveries. Procedural or physical control over delivery vehicles. Designated areas for parking up, un/loading and un/sheeting areas.	<table border="1"> <tr> <td><u>1</u></td> <td><u>2</u></td> <td><u>3</u></td> <td><u>4</u></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </table>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>					i) HSWA s2/3 and/or MHSWR reg 3(1) requiring system of work and planning of activity.
	<u>1</u>	<u>2</u>		<u>3</u>	<u>4</u>							
ii) Sharing information and cooperating with others.	ii) Exchanging information and any simple site rules before the delivery, e.g. restrictions on the type and size of vehicles, which the site can safely handle, any procedures the driver needs to follow, who will be in overall charge of un/loading.	ii) MHSWR reg 12 & HSWA s3 requiring sharing information and co ordination between all parties in the delivery process.										
iii) Staff involved in un/loading have knowledge of what they should do.	iii) All people involved in un/loading know what is expected of them and what they should do – especially safe place for driver, e.g. in cab or refuge. Includes visiting drivers whose first language is not English. Rules are followed in practice.	iii) HSWA s2/3 requiring safe system of work for specific un/loading operations.										
7) Driver competence	i) Lift truck and other vehicles, such as shunters, tugs etc	i) Appropriate licences/certificates held & planned programme of refresher training.	<table border="1"> <tr> <td><u>1</u></td> <td><u>2</u></td> <td><u>3</u></td> <td><u>4</u></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </table>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>					i)- iii) PUWER reg 9 and
<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>									

	being driven by operators with appropriate licences.			HSAWA, s2 (1) requiring suitable training, with reference to ACOP in the case of FLT's.
	ii) No unauthorised use of designated vehicles.	ii) Authorisation system detailing the types of vehicle that a person is competent to operate. No unauthorised use of vehicles. - Look at control of keys.		
	iii) Safe driving practices followed and adequate supervision of site rules.	iii) Drivers have knowledge of the workplace, routes and higher risk operations. Site rules are complied with e.g. not loading if pedestrians in area, speed limits. Information and instruction on how to operate the vehicle e.g. use of any visibility aids. No obvious signs of impact damage on vehicles barriers and premises. [NB damage may also be a reflection of extensive reversing activity and poor spacing, not just competence.]		

**Rating**

- 1 - Full compliance in areas that matter.
- 2 – Broad compliance in areas that matter.
- 3 – Some compliance in areas that matter.
- 4 – Limited or no compliance in areas that matter.

\*This column outlines some enforcement options. It is not a definitive list of the appropriate action in all circumstances. Any decisions on enforcement must be based on our policy of proportionality, taking into account the overall level of risk from workplace transport on the site for example volume of traffic, interaction between vehicles and pedestrians, presence of vulnerable individuals e.g. children, visiting drivers, members of public. Enforcement should be in line with the EMM.

## Appendix 4 - “Struck by” Project: Technical Guidance

### Objective

To give technical advice for the inspection of workplace transport, by giving some practical options that can be used for assessing safe site, safe vehicle and safe driver issues at different premises, from a goods distribution centre to a manufacturing site, and to help judge compliance.

The advice is generic and intended to assist inspectors when looking at workplace transport issues relating to preventing “struck by “ injuries. The sections on the Inspection template dealing with Vehicle movements and Un/loading have not been covered in this guide. Where technical issues are identified that require further examination then contact should be made with the relevant discipline in your Specialist Group (Safe site – civil engineering and safe vehicle/driver – mechanical engineering) or, for Local Authority Inspectors, via your Enforcement Liaison Officer.

### Management of the workplace transport risk

Ref	Subject	Item	Technical Details of what practical options are available
1.1	<b>Management controls</b>	Information at site Induction inc Traffic routes Loading areas Segregation	Nominated persons responsible for traffic movements, parking, loading /unloading. Instructions to visiting drivers at gate house and /or prior contact with goods dispatchers etc
		Locations where pedestrians and vehicles will conflict	Covered in LOADING AREAS SECTION 2.11 Housekeeping-supervision and maintenance of roads and footways. Workplace Regs –Reg12 (Condition of floors and traffic routes). E.g. road sweepers/wheel wash, cleaning, internal roadways, free from potholes. Monitoring of controls-means of team communication/feedback to management. Audit of procedures review & changing system as it evolves.
		Speed limit-enforcement/supervision	Evidence that vehicles comply with speed limits.
1.2	<b>Risk assessment of all types of traffic movement – vehicles and pedestrians</b>	Number and types of traffic movement by both pedestrians and vehicles inside and outside buildings	Detailed assessment for each type of traffic movement to determine risk to pedestrians, other vehicles and structures considering location, type and number of movements.  Scaled plan of the premises showing transport routes and significant features, e.g. Loading bays, gradients, machines, racking, should be obtained or produced by the occupier as this is essential to control and manage the traffic on their premises.

### Site Layout and internal routes

Ref	Subject	Item	Technical Details of what practical options are available
2.1	<b>Site layout</b>	Information: Advance	At entrance - rectangular sign, clearly visible at a distance,

		warning and clear direction signing of entrance off the public highway into the premises	contrasting colours with directional arrows.  Site map sign with letters large enough to be read at appropriate distance or  Instructional sign for drivers to report or get instructions.
<b>2.2</b>	<b>Segregation of pedestrians and vehicles</b>	Pedestrian routes	Entrance - Segregated footways/ corridors or gates Pedestrian guardrails or barriers to vehicle routes and parking areas.  Road markings showing pedestrian routes Gap between barriers and racking also improves sightlines
<b>2.3</b>	<b>Vehicle containment barriers/ demarcation of routes</b>	i) Fixed	i) Barriers -metal/concrete Kerbs- as for footways Railings/Fencing Impact barriers to protect the premises and fittings inside the premises e.g. steel columns and racking. Floor/road markings At doorways and openings or other pedestrian points of access.
		ii) Movable/temporary barriers	ii) Posts in concrete drums, plastic demountable barriers, cones and tape
		iii) Road markings-thermoplastic road markings or road paint suitable for outside or inside use	iii) Other types of barriers could be spray paint or sand line on highway or footway surface / tape between posts / change in surface colour
<b>2.4</b>	<b>Crossing points</b>	Traffic lights Pedestrian crossings, footbridges and underpasses	Zebra Pelican style-subject to suitable criteria Dedicated-places marked by road studs and signage/ lighting  Visibility of pedestrians/sightlines-Location to suit circumstances and other access needs  <b>Road lighting:</b> BS 5489-1:2003, Code of practice for the design of road lighting - Part 1: Lighting of roads and public amenity areas.
<b>2.5</b>	<b>Traffic routes / Layout</b>	Entrance off public highway	Adequate radii and sight lines based on speed and category of roadway.
		Roadways: -	Width: Adequate width, e.g. 5.5 metres –2 way traffic flow inc. HGV's. Radii: at junctions and changes of direction based on width of load and suitable for vehicles in use  Sight lines at junctions e.g. X dimension 2.4-4.5 m, Y dimension 33m – 60m. Appropriate for road speeds. Passing places where roadway is too narrow for 2 way flow
		Gradients and ramps	Road ways: Max gradient for type of vehicle in use e.g. pallet trucks level surface and FLT, LGV highway gradient (if appropriate), Embankments/cuttings
		Surface and condition	Workplace Regs Reg 12 Condition of floors and traffic routes: Types e.g. Tarmac; Concrete Paving/blocks; Hardcore; Timber; Maintenance Drainage

		Traffic Management	One-Way systems to eliminate reversing when appropriate. Road humps, chicanes, etc to control speed Priority routing-as Highway Code signs.
		Maintenance and drainage	Effective draining of water with no ponding or flooding. No potholes or breaking up due to wear or abuse to road surface.
2.6	Features	Height Clearances	Under structures, pipe bridges, gantries, loading bays, canopies, and entrances with appropriate warning signs to Traffic Signs Regulation and General Directions (TSR & GD).
		Car and Vehicle Parking	Clearly marked and signed, adequate size with safe means for drivers to leave parking area. E.g. car spaces 2.5m wide x 4.8m deep with aisles adequate width: lorry spaces appropriate for size of LGV, i.e. 3.5m wide x max length of vehicle.
2.7	Junctions	Priority at Give Way	Junctions, crossroads and roundabouts- based on traffic flow and risk assessment. Give way on side roads, road markings, Diagram 1003, i.e. double 600mm line and 300mm gap, 100mm width of line. Signs in accordance with TSR&GD (see also Highway Code.)
		Traffic lights	When traffic flow is heavy and needs control for safety. Seek professional advice from Traffic Engineering Consultants for installation
		Mirrors on fixed structures to aid drivers in vehicle i.e. mirrors	At blind junctions where STOP line and sign may be appropriate but subject to deterioration with weather conditions.
2.8	Turning areas	Dedicated turning area using existing road system, turntable or dedicated reversing area.	Based on site dimensions and layout. Occupier may need professional advice of Consultants for design.
		Banksman supervision	Where other alternative physical measures cannot be used, such as above. Using area from which pedestrians are excluded. Hand Signals to Schedule 1, Part IX of SSR Regs, 1996, and PPE.
2.9	Traffic management: NB. Some measures are not suitable for FLT's and other vehicles e.g. tugs, cages, stillages, pallet trucks etc)	Speed Limits  Traffic Calming	Indicative road speed limit e.g. 5MPH or 10 MPH or walking pace. Included in site rules and enforced/supervised  Either temporary or permanent arrangements. Related to walking speed in pedestrian shared areas or safe vehicle speed elsewhere E.g. Road Humps, Chicanes, Narrowings
2.10	Car and lorry parking	Adequate car and lorry parking provision with suitable pedestrian access	Car parking spaces clearly marked with broken white lines, end- on or 90 degree parking spaces at a minimum 2.4m wide x 4.8m deep, but minimum 2.5mx 5.0m preferred to allow for loading at side doors. Aisle/roadway between parking spaces 5.5m – 6.0m wide. Angled parking spaces with narrower one- way aisles or road systems designs possible. Disabled parking spaces with extra width. Where car park aisles meet, give- way road markings and clear directions for routing.

2.11	Road marking and signs	Appropriate Road Markings	Road markings/lines full or broken, to indicate routes and priority at junctions. Types-centre line, edge of roadway, ghost markings, parking places for LGVs and cars. Lay-bys, junction boxes (as Highway Code Markings to TSR & GD) Restricted Access Box junction markings (if justified) Priority at junctions – give way and stop lines
		Signs	Warning Signs –triangular, black lettering on white background with red border. Height of triangle 600mm for 30MPH. (see Annex A attached)
2.12	Loading areas	Barriers, signs /markings	Segregation of drivers from loading /unloading operations. Safe system may be In Cab, Not in Cab, Safe refuge
		Safe Sheeting and Roping Area	Gantries, staging, access to vehicle / fall protection Immobilise vehicles- remove and control keys," DO NOT MOVE" sign in front of vehicle, wheel chocks, hydraulic bollards, captive systems.
2.13	Obstructions	Height and width clearances	See warning signs
		Natural Chicanes	Safely managed, inc signs, road lines, barriers and hazard marking.
		Natural / Artificial obstructions. Good Housekeeping	Maintenance of roadways, removal of debris, litter, leaves, pallets, drums, waste, etc
2.14	Lighting	Suitable lighting types for:	Roads see BS on road light standards on public highway – silhouette lighting
		<b>External Areas-</b> Roadways, Footways Parking and Other Areas	Movement of people, machines and vehicles e.g. for lorry parks, circulation routes – overall average 20 lux minimum 5 lux
		Interior lighting suitable for task.	In hazardous areas rough work not requiring perception of detail Average 50 lux, minimum 20 lux see HSG38
		Temporary Lighting	Temporary situations only, e.g. roadworks on workplace traffic routes, illuminated for safety.
		Lighting on vehicles Vehicles in roadworks - according to need based on risk assessment taking into account surrounding lighting i.e. flashing amber light on top	Most on site vehicles do not have lights unless fitted at customer request as required. Road vehicles do under Road Vehicles Construction and Use Regulations.  <b>WP vehicles according to need, based on risk assessment.</b>

### Vehicle Selection and suitability

Ref	Subject	Item	Technical Details of what practical options are available
3.1	Road vehicles:	Suited to site	Vehicle can turn in the available space, and access the loading dock (vehicle deck height is within range of the dock leveller) NB Curtain sided vehicles may avoid the need for

			reversing, but may pose other H&S risks
		Vehicle can be sheeted / strapped without risk to the driver.	Client has risk assessed the operation of sheeting and considered proprietary systems to avoid climbing on vehicle and the operation can be carried out safely.
		Tail-lift vehicles	Adequate means are available to prevent the load falling from tail lift platform as the tail lift is being operated (e.g. edge protection, brakes on wheeled trolleys etc.) Tail lifts should be built to BS/EN 1756 Parts 1 and 2. Guidance is available in "Tail Lifts: Specification Guide", Institute of Road Traffic Engineers Copy available in HSE area libraries or from Society of Engineers, London. (Tel 020 7630 1111)
		Reversing	Where RA has considered vehicle movements and where reversing cannot be eliminated vehicle should be fitted with visibility aids to suit. Can include CCTV, mirrors and other sensing systems. See OC 803/70 or LAC 85/10 "CCTV on Road going vehicles". If necessary, seek technical advice from a suitably qualified Mechanical engineer e.g. in the HSE Specialist Group or via the Enforcement Liaison Officer (ELO).
3.2	Site vehicles e.g. FLT's	Suited to terrain	Vehicle has been selected to suit ground conditions (small diameter wheels not suited to rough ground).
		Suited to slopes	Vehicle suitable to travel up and down any slopes on site (hand brake will hold, forwards or backwards, on any slope that the vehicle travels up/down). NB Not good practice to park on slopes, but vehicle must be able to be parked if necessary (e.g. running out of fuel)
		Load handling	Vehicle is suited to handle the type of load. RA has considered available special purpose fixtures (e.g. barrel clamps, squeeze plates) to minimise manual handling and risk of shedding load. Any fixtures used are easily interchangeable when required to minimise chance of operators taking short cuts.
		Speed	Vehicle speed is appropriate to site conditions (Some trucks have programmable maximum speed settings).
		Operator involvement Parking	Operators are involved in selection of equipment. FLT's should be safely parked with the handbrake applied, on the level with the load lowered
3.3	Visibility	Direct visibility	Good direct visibility (bearing in mind type of load carried). Carrying excessive loads which limit visibility should be avoided. Consideration should be given to carrying less, e.g. 1 pallet instead of 2. Where large loads prevent good forward vision driving the FLT in reverse is acceptable for short distance/infrequent journeys. For long distance/frequent trips consideration should be given to using an alternative vehicle e.g. reach truck or side loader; or using an attachment e.g. for carrying roof trusses.
		Indirect visibility	Mirrors / CCTV /Radar etc fitted where direct visibility not possible
		Access for cleaning	Windows and mirrors can be cleaned without the need for acrobatics.
		Wipers / lights	Wipers / lights fitted where necessary for external work

		Reversing alarms / beacons	Elimination of reversing is the aim e.g. through site layout and vehicle selection. NB Reversing alarms and beacons are low in hierarchy of control measures as they do not allow the driver to detect the pedestrian. It can become confusing for people if there are many alarms sounding on a site. May be suitable as an additional warning for areas where MOP's are present. May conflict with environmental (noise) issues. Where alarms are fitted they should be maintained,
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## Vehicle Maintenance

Ref	Subject	Item	Technical Details of what practical options are available
4.1	<b>General condition</b>	Impact damage	General scuffing on some vehicles, e.g. FLT counterbalance weight is normal. Impact damage, damage to lights, cab structure may suggest inappropriate selection, misuse or lack of competence. Significant impact damage to FOPS or ROPS should require examination by service engineer or competent person (if LOLER applies) to determine if vehicle safe to continue in use. (See remarks below on damage / incident reporting).
4.2	<b>Functional</b>	Vehicle is functional – ask operator to demonstrate, but only if safe to do so. If in doubt ask for support from suitably qualified mechanical engineer e.g. HSE Specialist Group or via ELO.	Brakes – service and parking, wipers, horn, lights, steering, access interlocks if applicable e.g. travel seat switch, parking brakes, transmission interlock, hydraulic controls interlock across access/egress, load moment indicator and/or limiter.
4.3		Damage / accident reporting	Damage / accidents are reported promptly and the vehicle inspected by a competent person for non-obvious damage. Control systems exist which isolate the truck after a collision, and which require a service technician to reset before the truck can be re-used. Ensures truck is safe to continue in use, and avoids night shift being blamed for all damage!
4.4	<b>Maintenance</b>	Daily checks	Daily checks carried out by operator (e.g. fuel, oil, water, hydraulic fluid levels; tyres, lights, horn; check for oil leaks and obvious damage). Checklist audited by supervision and retained for limited period
		Defect reporting	System exists for reporting any defects and client can demonstrate appropriate action on any given defect.
		Planned maintenance	A planned maintenance schedule exists for each vehicle and maintenance is carried out to the schedule by a competent service technician. Planned maintenance is recorded and any non-critical defects are noted, and appropriate action taken.
		Breakdown maintenance	A system exists for reporting breakdowns and obtaining repairs, and breakdown maintenance is recorded. Records of breakdown maintenance available for inspection.
		Emergency arrangements	In the event of a breakdown on a key vehicle, alternative arrangements are in place to enable material to be obtained from storage and vehicles loaded and unloaded without any increased risk.

4.5	<b>Thorough examination</b>	LOLER	Lifting equipment such as FLT's, tail lifts and HIABs are inspected at appropriate intervals by a competent person. Records are available for inspection
4.6	<b>Information for USE</b>	Rating plate or load charts	Information provided to enable operator to operate within stability limits. Typically information associated with lifting equipment will either have a rating plate or load charts.
		Operator Instruction handbook/manual	Manufacturers information available, if required. Handy reference for operation (dos and don'ts) and maintenance information
		Site Rules	Specific to the particular vehicle and its operation e.g. regarding use of attachments, speed limits, additional segregation – where different to general rules
		Setting Information	E.g. for visibility aids, load moment limiters, tyre pressures etc
4.7		Key Control/Authorisation	System exists to prevent unauthorised persons driving vehicles

## Driver competence

Ref	Subject	Item	Technical Details of what practical options are available
7.1	<b>Driver selection:</b>	Selecting drivers for initial training	System in place for selecting drivers: ability to do job in a responsible manner, potential to become competent operators and physical and mental ability for the task. Physical ability to drive must be done on an individual basis. More detail on medical fitness to drive in HSG 6, pages 43-47 and L117 ACoP, page 5. DVLA website "At a Glance" guide gives good benchmark advice.
		Recruiting experienced drivers	System for assessing competence and fitness – does driving performance match any Certificates previously obtained by the driver? Does the evidence show they are competent to drive the FLT's and attachments in use in the new workplace or will additional training be needed? Attitude to the job.
7.2	<b>Driver training</b>	Fork trucks	Training in accordance with ACoP. Should have the following components: <ul style="list-style-type: none"> <li>• <b>Basic training and test – generic</b></li> <li>• <b>Specific job training – tailored to specific site and equipment</b></li> <li>• <b>Familiarisation training – specific to the task, on the job and under close supervision.</b></li> </ul>

		Other vehicles	<p>Similar principle should be applied to other types of workplace transport vehicle:</p> <p><b>Large goods vehicles:</b> HGV test, but may need additional training to deal with use of reversing aids etc., safe practice for coupling/un coupling.</p> <p>May need refresher training to deal with changes in technology.</p> <p>Needs knowledge of site rules – including deliveries.</p> <p><b>Shunters &amp; tugs:</b> Suitable training instructions should be provided by the employer, but there are no nationally agreed training courses at present. However, the HGV licence is a good benchmark.</p> <p><b>Stand on pallet trucks:</b> ACoP suggests similar to fork trucks used for stacking. Needs more than an hour's familiarisation as these vehicles are involved in many "Struck by" accidents.</p>
7.3	Driver authorisation	Drivers authorised in writing	Record of training should be kept by the employer. Drivers should be authorised in writing after assessing competence to drive specific vehicle types.
		Key control system	See safe vehicle guidance. Electronic key pad systems such as Infolok may be helpful in preventing unauthorised access to FLT's.
7.4	Safe driving practices followed	Systems for monitoring driving practice in the workplace	<p>Simple site rules can be an effective tool for driver management. – need to consider a range of situations e.g., visiting drivers who do not speak English as a first language, children in cabs, unsuitable PPE.</p> <p>Rules need to be actively monitored:</p> <p>Are people following the rules – if not why not? Are the rules unworkable? Is more training needed.</p> <p>Appoint people to do the monitoring – Training is available for those who supervise fork truck operations – show what the key aspects of safe operations are and how to observe and how to challenge bad practices.</p>
		Workload and job design	<p>Both these can influence driver behaviour e.g. "job and finish", tight deadlines.</p> <p>Fatigue may be a factor – effects of time "on shift", "time of shift", shift patterns and shift handovers. Technical help on human factors can be sourced via Specialist Group or Enforcement Liaison Officer.</p>

## Annex A - Supplementary Information: Road Markings and Signs (as Highway Code)

Road markings and signs	Signs	<p><b>Warning Signs</b> –triangular, black lettering on white background with red border. Height of triangle minimum 600mm for 30 MPH. E.g. Height or Weight restriction, sign on pipe bridges, gantries, catenaries, foot and vehicle bridges, overhead service ducts etc and other obstructions in vehicle routes, e.g. if less than 5m (16 foot 6 inches) clearance.</p> <p><b>Use Mandatory or Regulatory Signs</b> (TSR &amp; GD) 2002 E.g. Max speed limit sign, Diagram 670. Black number (not “MPH” lettering) on white background with a red border. Diameter usually 600mm (varies between 300mm-1500mm depending on location and use) for 30MPH.</p> <p>The law requires Traffic Signs Regulations and General Directions signs to be used where there <b>is a hazard</b></p> <p>Examples of other regulating signs: -</p> <table border="1" data-bbox="566 712 1524 1137"> <thead> <tr> <th>Sign Type</th> <th>Diagram No in TSR&amp;GD</th> <th>Diameter</th> </tr> </thead> <tbody> <tr> <td>Width Limit</td> <td>629 629A</td> <td>600 750</td> </tr> <tr> <td>Length limit</td> <td>629.1</td> <td>600mm</td> </tr> <tr> <td>Pedestrians prohibited</td> <td>625.1</td> <td>600mm</td> </tr> <tr> <td>No articulated vehicles</td> <td>622.4,</td> <td>600mm</td> </tr> <tr> <td>Height limit prohibition</td> <td>629.2,</td> <td>600mm</td> </tr> </tbody> </table> <p>Note: usual size is 600mm diameter in 30 mph limit.</p>	Sign Type	Diagram No in TSR&GD	Diameter	Width Limit	629 629A	600 750	Length limit	629.1	600mm	Pedestrians prohibited	625.1	600mm	No articulated vehicles	622.4,	600mm	Height limit prohibition	629.2,	600mm
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