

## SAFE DELIVERY OF METAL STOCK

### SUMMARY

1. The delivery of metal stock is a hazardous activity with the potential for serious injury. The HSE has issued a Sector Information Minute providing guidance on controlling this risk through the use of written delivery plans.

### BACKGROUND

2. Shipyards are significant users of metal stock. The delivery of this stock is a high hazard activity, which has been involved in a number of serious, sometimes fatal injuries. In many cases the accidents could have been avoided if the unloading had been carried out according to a documented safe unloading procedure based on a suitable and sufficient risk assessment of the activity.

3. The Engineering and Utilities Sector has issued a Sector Information Minute *Safe delivery of metal stock – written delivery plans* (attached as appendix 1) providing guidance on this issue. The SIM supplements the advice contained in the free HSE leaflet *Safe unloading of steel stock* (INDG313) available on the HSE web site at: <http://www.hse.gov.uk/pubns/indg313.pdf>

### ACTION

4. Members are asked to:

- note the contents of the SIM and the free leaflet and to verify that steel and other metal stock is delivered to their premises according to the advice given; and
- to report back on this issue at the 47<sup>TH</sup> SSHSCC regarding the precautions followed.

## APPENDIX 1

<b>Health and Safety Executive</b>		<b>Sector Information Minute</b>	
<b>Field Operations Directorate</b>			
<b>Engineering and Utilities Sector</b>		<b>SIM 3/2002/34</b>	
<b>Steel/Metal Stockholding</b>			
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To  
FOD Inspectors  
SG Specialist Inspectors (Mech Eng)  
SG Medical and Occupational Inspectors

### SAFE DELIVERY OF METAL STOCK – WRITTEN DELIVERY PLANS

This SIM provides guidance to inspectors on the preparation of written plans for safe delivery of steel and other metal stock, eg by stockholders to their customers, and supplements earlier guidance in INDG313 *Safe unloading of steel stock*. It does not deal in detail with vehicle loading or transportation on the public highway nor with the storage and handling of metal stock (guidance in preparation).

### BACKGROUND

1 Many serious and sometimes fatal accidents have occurred during the delivery of metal stock, involving unloading staff, vehicle drivers and other persons. Investigation has often shown that the incidents could have been avoided if there had been an appropriate assessment of the risks and the delivery and unloading activities properly planned.

2 The Engineering Sector working through its partners in the Steel Stockholders Local Authority Partnership (SSLAP) the National Association of Steel Stockholders (NASS) and Wolverhampton Metropolitan Borough Council (the Lead Authority) - produced guidance on how safe delivery could be achieved in INDG313 *Safe unloading of steel stock*. One of the key recommendations was that suppliers and customers should agree in advance as to the arrangements needed for safe delivery of stock and document these in the form of a written 'Delivery Plan'. However, feedback from Inspectors during 2001/02 indicated that only 14% of stockholders were producing written delivery plans.

### SUPPLY OF GOODS

3 When a customer places an order with a supplier, a supply agreement is entered into between them. Although it is important that this agreement

should make it absolutely clear to both parties where their safety responsibilities begin and end, the control of risk and avoidance of accidents will necessarily involve full cooperation between all parties involved in the supply process ie supplier, customer and haulier.

4 For the purposes of planning for safe delivery, and within the context of INDG313, 'Supply' is taken to comprise five stages:

#### **(i) Order placement by customer**

Customers should ensure that they order only those goods for which they have adequate facilities, at the delivery address, for safe unloading, further handling and storage. For example, customers should only order appropriate lengths and weights of long stock, remembering that smaller lengths often lend themselves to safer unloading with standard equipment/attachments and can also be more safely carried along roadways or through doorway openings. Although materials can usually be cut to size by supplier, this often adds to the cost.

At this stage the supplier and customer should agree:

- the point at which the goods will become the customer's responsibility;
- the management arrangements, plant, equipment and systems of work for ensuring safe stock delivery.

#### **(ii) Loading**

Vehicles must be loaded in such a way that they can be safely unloaded at a customer's premises, as well as meeting any requirements for safe transport on the public highway. The information obtained by the supplier and agreed with the customer at the time of order acceptance will assist planning of the loading arrangements.

Whilst it is the supplier's responsibility to assess the risks and ensure that the materials are properly loaded, determination of the sequence of loading and the load configuration is likely to require close co-operation with the haulier and customer to ensure stock can be safely unloaded at the delivery address.

#### **(iii) Transportation**

Guidance on the securing of metal stock for safe transport by road is set out in the Code of Practice *Safety of Loads on Vehicles* published and enforced by the Department of Transport, Local Authorities and the Regions" (DTLR) (SF 803). It is the responsibility of the vehicle driver to check that the load is secure and safe for transportation on the public highway before the vehicle leaves the supplier's premises.

#### **(iv) Delivery**

Delivery covers the period from arrival at the delivery address to the pre-agreed point at which the stock is to become the customer's responsibility. **This SIM is concerned with the planning of this stage by the supplier.** If unloading is part of the delivery arrangements ie the pre-agreed transfer point to customer is after vehicle unloading, then it will need to be included in the supplier's delivery planning process; if not, then it will be part of the consignment stage and the responsibility of the customer. Where there is no pre-agreed point of transfer it may be assumed that the delivery has been completed when the delivery vehicle has arrived at the delivery address, been parked and is available for unloading.

### **(v) Consignment**

Consignment to the customer marks the point at which the goods become the customer's responsibility. It is the end point of delivery and is likely to be the same point at which financial liability for damage or loss transfers from supplier to customer. In general, overall assessment of risk after this point rests with the customer although implementation of control measures is likely to require close cooperation between supplier/haulier and customer.

### PLANNING FOR SAFE DELIVERY

5 'Safe delivery' means proper control of the risks to the health and safety of persons whose safety might be put at risk by the delivery activity and is the joint responsibility of the supplier, contract haulier (where the supplier is not the haulier) and customer. Deliveries must be properly planned, with the supplier and customer agreeing in advance the management arrangements, plant, equipment and systems of work to ensure safe delivery. In many cases this agreement needs to be documented as a **written Delivery Plan** - see Appendix.

6 Delivery planning begins with a proper assessment of the associated hazards/risks by the supplier and customer. Analysis of reported accidents shows that the main causes of injury associated with metal stock delivery include:

- **falls from height, eg off vehicles and off materials loaded on vehicles;**
- **struck by - 'unexpected' movement of stock falling from vehicles;**
- **stock being lifted/moved;**
- **moving vehicles, eg rider operated lift trucks, reversing vehicles;**
- **musculoskeletal injuries from the manual handling of stock/materials including 'barring off' and carrying heavy/bulky items.**

7 The supplier should ensure that a competent person (eg a suitably trained transport manager, transport supervisor or driver) prepares a Delivery

Plan, in agreement with the customer, which ensures that all hazards have been identified and the risks properly assessed.

8 The Delivery Plan should not only be based on the types, (ie plate, rod, bar, coil, etc), dimensions, weight and properties of material ordered, but also take account of the following information obtained from/agreed with the customer:

- delivery address;
- site access,
- transport restrictions and route to unloading facilities;
- site-specific hazards and risks;
- arrangements: personnel - including roles and responsibilities of vehicle driver and site personnel; supervision arrangements;
- arrangements: equipment - including location of suitable plant and equipment, lifting attachments etc;
- load configuration on the vehicle and unloading sequence; and
- consignment bundling/banding;

#### WRITTEN DELIVERY PLANS

9 The format for a written Delivery Plan should be left to individual suppliers. Appendix is an example of a format devised and used by some NASS members. In particular it sets out the:

- (1) arrangements and responsibilities for ensuring safe delivery; and
- (2) information from the supplier as to any essential or site-specific requirements for safe delivery and unloading.

10 An adequate Delivery Plan is likely to include:

- (1) physical details of the load and load components;
- (2) delivery address and unloading location;
- (3) instructions to be followed by the driver upon arrival at the delivery point;
- (4) site transport restrictions eg speed limits, reversing constraints, danger areas;
- (5) details of person(s) responsible for supervising and for unloading the vehicle;

(6) where appropriate, any duties of the driver in respect of the delivery process, eg unsheeting, load checking, unloading etc;

(7) if unloading is part of the driver's responsibilities, arrangements for safe unloading which could include:

- (a) setting up of an exclusion zone round the vehicle prior to unloading;
- (b) arrangements for safe access to the vehicle/load;
- (c) lifting/handling plant and equipment to be used;
- (d) arrangements for safe lifting/unloading of material;
- (e) specific requirements for safe slinging or handling of the load;
- (f) any manual handling requirements;

11 An adequate written delivery plan is a practical way of demonstrating that a suitable and sufficient assessment of all the risks has been carried out, involving the close co-operation of all those with legal responsibilities eg suppliers, customers and, where appropriate, contract hauliers.

#### IMPLEMENTING THE DELIVERY PLAN

12 Safe delivery of metal stock requires good coordination of effort by all those involved. Suppliers, contract hauliers and customers will need to work together to ensure that Delivery Plans are fully implemented.

13 It is important that all persons, responsible for implementing the Delivery Plan, are informed of the extent of their duties and responsibilities, that they are adequately instructed, trained and supervised, and that they cooperate with one another to ensure that the work is carried out safely. Particularly important areas requiring close cooperation and effective supervision include:

- (1) manoeuvring/reversing of vehicles;
- (2) setting up of exclusion zones around vehicles before loading/unloading them;
- (3) securing of load components to lifting attachments;
- (4) unloading stock from vehicles.

14 Loading and unloading will normally involve lifting and/or manual handling operations. These must be planned and adequately supervised by the employer of the person carrying out the work, in accordance with the requirements of the Lifting Equipment & Lifting Operations Regulations 1998 ("LOLER") and/or the Manual Handling Operations Regulations 1992.

15 Details of the weights of individual load components or bundles should be made available to unloading staff, for example by product marking or use of notices, to ensure that the correct lifting equipment and attachments (eg fork extensions for long product) are used and/or that product can be safely manually handled.

16 Changes to the Delivery Plan should be avoided wherever possible. In the event of unavoidable changes to the arrangements at any stage in the process, a re-assessment should be carried out and the Plan amended/updated, preferably by the person who originally prepared it. In particular, the driver of the vehicle or other person on site, should not be responsible for making decisions as to loading, unloading or load securing methods, unless they are competent and authorised to do so.

### FURTHER GUIDANCE

17 In the second half of the 2002/03 work year WCO's will be sending a copy of this guidance, along with a questionnaire and explanatory letter, to steel stockholders, hauliers and newly-registered stock users; the exercise will contribute to the workplace transport and falls from heights Revitalising topics. The questionnaire will seek feedback from Clients as to their implementation of the guidance and where there is a nil or inadequate response the matter will be referred to band 2's for consideration of possible follow-up action.

18 Further guidance on risk assessment and safe unloading procedures is contained in NASS Publication *Load Safety* (SF 632). Priced copies are available from the National Association of Steel Stockholders (NASS), 6th Floor, McLaren Building, 35 Dale End, Birmingham B4 7LN.

19 Further information can be obtained from the Engineering Sector in Birmingham.

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