

**Guide to the Carriage of Dangerous
Goods Regulations with respect to
soiled instruments**

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1. Introduction

- 1.1 This guidance document has been produced by Health Facilities Scotland (HFS) with assistance from the Freight Transport Association (FTA).

Who is this guide for?

- 1.2 This guide has been produced to assist those involved with, or responsible for, the movement of soiled instruments to Central Decontamination Units (CDU) and Local Decontamination Units (LDU).
- 1.3 The guidance has been produced from the perspective of the 'consignor', that is the person who is responsible, who has produced the soiled instruments, and who is responsible for returning them to CDUs or LDUs for cleaning and decontamination.

Aim of the guidance

- 1.4 This guidance document aims to provide the reader with information regarding the key elements associated with Carriage of Dangerous Goods Regulations applicable to soiled instruments which are being returned to CDUs or LDUs for decontamination.
- 1.5 Carriage of Dangerous Goods Regulations is amended bi-annually in line with changes made internationally. This guidance document has been produced to take into account the requirements of The Carriage of Dangerous Goods and Use of Transportable Pressure Receptacles Regulations 2004 (as amended) which implements the European agreement; on Carriage: ADR 2005. Forthcoming changes in Regulation have been anticipated based on the Department for Transport Dangerous Goods Branch Letter of Authorisation (No.53) which pre-empts changes which will be introduced by ADR 2007 and subsequent amendments to the UK Carriage Regulations which will remain valid until 2009.

Structure of the guidance

- 1.6 The guidance aims to provide the reader with information regarding the key elements associated with Carriage of Dangerous Goods Regulation applicable to decontamination units.
- 1.7 Sections 2 to 10 detail the packaging, labelling, documentation and transport requirements applicable to soiled instruments as dangerous goods.
- 1.8 [Appendix A](#) provides an overview of all the requirements for reference purposes.

2. Introduction to Carriage Regulations

Regulations and enforcement

- 2.1 The (UK) Carriage of Dangerous Goods and use of Transportable Pressure Equipment (CDGTPE) Regulations 2004 (as amended) are aligned to the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR).
- 2.2 European Carriage Regulations (ADR) are amended bi-annually. The current European Regulations are ADR 2005 which remained in force until 31st December 2006. ADR 2007 came into force on 1st January 2007 and will be implemented in the UK via the CDGTPE Regulations 2007 which will come into force in July 2007.
- 2.3 The Department for Transport (DfT), Dangerous Goods Branch formulates the Carriage Regulation in the UK, with the Health and Safety Executive (HSE) as the enforcement agency. However, the HSE has relinquished its responsibilities for roadside enforcement to the Vehicle Operators Services Agency (VOSA) and the police.
- 2.4 Immediate Health and Safety prohibition notices can be issued to vehicle operators (carriers) for non-compliance issues, thereby prohibiting the vehicle from continuing its journey.

Who do the Regulations apply to?

- 2.5 The Regulations apply to:
 - consignors;
 - loaders;
 - packers;
 - fillers;
 - carriers; and
 - drivers involved in the carriage of dangerous goods by road.

This includes NHS bodies who generally are involved in some if not all of the above activities.

3. Consignor responsibilities

- 3.1 A consignor is defined as the enterprise which consigns dangerous goods either on its own behalf or for a third party.
- 3.2 This means that all NHS bodies that either transport soiled instruments or use a third party to transport the soiled instruments take on the role of a consignor and must comply with certain parts of dangerous goods legislation. This responsibility does not transfer to a contracted carrier.
- 3.3 The legislation demands that consignors (e.g. decontamination units) conform to the following requirements:
1. The consignor must ensure that the dangerous goods are correctly classified. (see [Section 4](#)).
 2. Use only approved packages and large packages (see [Section 5](#)) bearing the appropriate marks and labels (see [Sections 6](#)).
 3. Provide the carrier with information and the required transport documents. (see [Section 7](#)).
 4. Train staff (all staff) whose duties concern the carriage of dangerous goods appropriate to their responsibilities, and document such training (see [Section 8](#)).
 5. Consider the security requirements commensurate with their responsibilities and train staff in security matters.
 6. Appoint a Dangerous Goods Safety Adviser (DGSA) to monitor, advise and prepare an annual report (see [paragraph 8.8](#)).

4. Classification

- 4.1 The (GB) Carriage Regulations impose a duty on consignors to classify dangerous goods in accordance with the European Regulations (ADR) and consignors must identify the class (type) of dangerous good to be carried.
- 4.2 There are nine different UN classes of dangerous goods, some of which are sub-divided into different divisions:
- Class 1 Explosives
 - Class 2 Gases (Flammable gas, Toxic gas, Non Flammable Non Toxic Gas)
 - Class 3 Flammable Liquids
 - Class 4.1 Flammable Solids
 - Class 4.2 Spontaneously Combustible Materials
 - Class 4.3 Dangerous when Wet
 - Class 5.1 Oxidizing Substances
 - Class 5.2 Organic Peroxides
 - Class 6.1 Toxic Substances
 - Class 6.2 Infectious Substances
 - Class 7 Radioactive Materials
 - Class 8 Corrosive Substances
 - Class 9 Miscellaneous dangerous substances and articles
- 4,3 Soiled surgical instruments are either known or presumed to pose a risk of infection and are therefore classified in Class 6.2 Infectious Substances.
- 4.4 In addition to soiled instruments, Central Decontamination Units may be responsible for the transportation of other dangerous goods, such as disinfectant and other cleaning agents. The regulatory requirements applicable to these substances are not included within this guide. This guide reviews the requirements with respect to infectious substances only. Advice should be sought from the manufacturers and/or suppliers of dangerous goods in the first instance with additional advice being provided by a Dangerous Goods Safety Advisor (see [paragraph 8.8](#)).
- 4.5 In addition to identifying the class of dangerous goods to be carried, consignors are responsible for identifying the type of goods by reference to a unique reference number used in the European Regulations (ADR) known as the 'UN

Number' and its 'Proper Shipping Name' which relates to the UN Number. In addition, details of the level of hazard posed should be provided by reference to the type of packaging (packaging group) which should be used. The information required is summarised overleaf:

<p>UN Class:</p> <p>UN Number:</p> <p>Proper Shipping Name (PSN):</p>
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- 4.6 A qualified Dangerous Goods Safety Advisor (DGSA) can help in the identification and classification of dangerous goods. All NHS Boards should have access to DGSA advice.

Classification of soiled instruments

- 4.7 The classifications used for infectious substances are agreed at European level. The classifications system does not differentiate between infectious waste (clinical waste) and infectious items which are intended for re-use and are therefore not waste.
- 4.8 Soiled instruments are therefore classified as infectious waste for purpose of carriage but it should be noted that as the materials are **not** actually 'waste' e.g. they are intend for re-use following decontamination and the requirements of waste related regulation do not apply.
- 4.9 Infectious substances (Class 6.2) are broadly divided into two groups, based on the level of infection posed, by reference to two hazard categories:
- Category A Highly infectious substance
 - Category B Infectious substance
- 4.10 Highly infectious substances (Category A) are capable of causing permanent disability, life threatening or fatal disease to humans or animals. An indicative list of example substances, by reference to infectious pathogens and resulting diseases, has been produced and agreed at European level and includes items from patients known to be infected with diseases such as Ebola Virus and Lassa Fever. In addition, the list includes a number of more common pathogens such as Hepatitis B (HBV) and Human Immunodeficiency Virus (HIV) when in **culture form only**, therefore waste and soiled instruments from patients with HBV and HIV is not considered highly infectious and is **not** included within Category A (highly infectious substances).
- 4.11 [Appendix D](#) of this guidance document provides further information on the classification of Category A - Infectious Substances.

- 4.12 It is highly unlikely that CDUs or LDUs will be required to transport or manage Category A infectious substances. For this reason, this guidance focuses on the requirements applicable to Category B - Infectious Substances.
- 4.13 The classification and descriptions which should be used for Category B Infectious Substances is shown below:

UN Class: 6.2

UN Number: UN 3291

Proper Shipping Name (PSN): Clinical Waste, Unspecified, (Soiled Instruments) NOS*

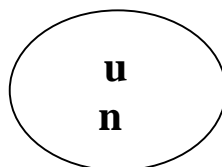
UN Packing Group (PG): II

5. Packaging requirements

- 5.1 The type of packaging which should be used is dependent on the classification of the material, it is therefore important that dangerous goods are classified correctly.
- 5.2 Dangerous goods should be packaged in good quality packages which should be strong enough to withstand the shocks and loadings normally encountered during carriage.
- 5.3 Packaging should be constructed and closed (securely sealed) to prevent any loss of contents under normal conditions of transport.
- 5.4 Packaging should be closed in accordance with the information provided by the manufacturer e.g. lids should be closed and containers should be sealed.
- 5.5 No dangerous goods (or residue) should adhere to the outside of packaging e.g. the external surfaces should be free of contamination.

UN Approved Packaging

- 5.6 All packaging used should conform to a design type successfully tested in accordance with international requirements; approved packaging is described as 'UN Approved'. **It is important that all dangerous goods including soiled instruments are packaged in 'UN Approved' containers bearing the appropriate 'UN Approval' symbol.**
- 5.7 A competent body is assigned in each Country to test packaging; in the UK the body is PIRA (www.pira.co.uk). However, UN approved packaging may be used in the UK regardless of where it was tested.
- 5.8 When a package has successfully undergone testing and is classified as 'UN Approved' it is allocated a code, the most important part of which is the symbol noted below which is given at the start of the code:



- 5.9 All UN approved packaging should bear the symbol above, either in the form of a label attached to the packaging (e.g. a sticker) or the symbol may be embossed into the packaging itself.
- 5.10 Infectious substances in Category B (UN 3291), which includes soiled instruments, must be packed in accordance with Packing Instruction P621

(individual packages) and LP621 (wheeled bins and trolleys) as detailed in ADR.

Individual packages

- 5.11 Individual packages for substances assigned to UN 3291 must comply with Packing Instruction P62, summarised below:



- packages should be rigid and should contain sufficient absorbent material or be leak proof to prevent free liquid escaping;
- packaging intended to contain sharp objects such as broken glass and needles shall be resistant to puncture and retain liquids under the performance test conditions.

- 5.12 Packaging manufacturers and suppliers will be able to provide information about the performance of the products they supply.

- 5.13 Examples of P621 compliant packaging include instrument boxes, please note that UN approved packaging should bear the 'UN symbol' (see [paragraph 5.8](#)).

Larger packages including trolleys

- 5.14 Large packages for substances assigned to UN 3291 must comply with Packing Instruction LP621 which includes large wheeled bins and trolleys (including certain instrument trolleys). The ADR requirements applicable to LP621 packages have been summarised below:



- packages should be rigid and should contain sufficient absorbent material or be leak proof to prevent free liquid escaping;
- large packaging intended to contain sharp objects such as broken glass and needles shall be resistant to puncture and retain liquids under the performance test conditions.

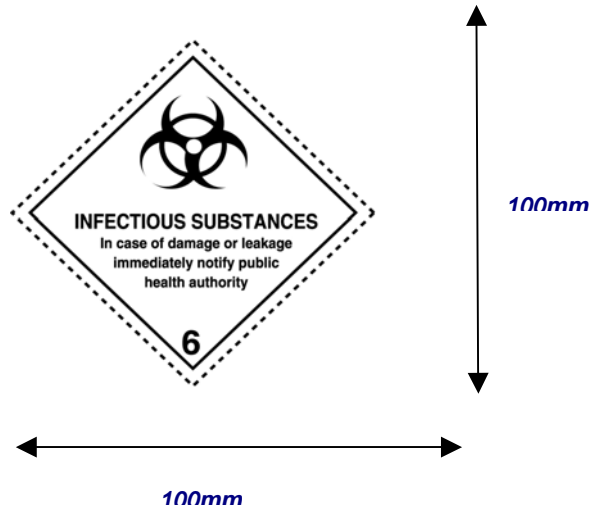
- 5.15 UN approved trolleys (certain instrument trolleys) may be used to transport soiled instruments which may be contained in non-UN approved primary

packaging, e.g. internal storage containers within UN approved trolleys need not be UN approved.

- 5.16 Packaging manufacturers and suppliers will be able to provide information about the performance of the products they supply.
- 5.17 Examples of LP621 compliant packaging include stackable boxes and trolleys.
- 5.18 At this time only one Sterile Services trolley has been tested and is considered to be UN approved. Details of this trolley and other UN approved packaging can be obtained from http://www.piraconsulting.com/pc/dg/dg_pad.php and follow the links to UK Dangerous Goods Packing Certification Scheme.
- 5.19 Care should be taken when procuring containers for soiled instruments. Many of the trolleys in use today are not UN approved and therefore have not been tested to ensure compliance with LP621. Whilst it is acknowledged that many of these trolleys are 'fit for purpose' (designed for their purpose), procurement policy should be such that only 'UN approved' containers are purchased.

6. Marking and labelling requirements

- 6.1 Each container bearing dangerous goods should have a label identifying the type of goods contained by reference to the appropriate UN number (UN3291) and should show the appropriate label (hazard warning symbol).
- 6.2 For UN 3291 substances, an 'infectious substance' symbol, as shown below should be displayed.



- 6.3 Labels must have minimum dimensions of 100mm X 100mm or where a package is of such an irregular shape or small size where a label cannot be affixed, the label may be attached by a securely affixed tag or by other suitable means.
- 6.4 The labels (hazard warning symbol) is usually shown on a white background. However, the label may be embossed on a package without the background colour being white in line with the Department of Transport Authorisation Letter No 53 (see [Appendix B](#) for sources of further information)
- 6.5 Dangerous goods labels must only be used on dangerous goods and therefore labels should be removed from packages when the package contains clean items only.

7. Documentation

Transport document

- 7.1 All movements of dangerous goods should be accompanied by a transport document which details the dangerous goods which are being carried.
- 7.2 There is a set format for some of the detail of the document, an example is shown overleaf.

Transport Document Requirements
Name and address of consignor: <i>Anywhere NHS Hospital</i>
Name and telephone number of a responsible person: <i>Mr Smith Tel XXX XXXXXX</i>
Name and address of consignee: <i>Mr Jones</i> <i>Central Decontamination Units, Any town, Postcode</i>
UN Number of the dangerous goods: <i>UN3291</i>
The Proper Shipping Name of the dangerous goods: <i>Clinical Waste Unspecified (Soiled Instruments), NOS</i>
UN Classification: <i>Class 6.2</i>

Written emergency instructions (TREMcard)

- 7.3 The driver of a vehicle carrying dangerous goods must be given written emergency instructions (known as a TREMcard), detailing what actions must be taken in the event of an accident or emergency occurring and what Personal Protection Equipment (PPE) is required.

8. Training

General training requirements

- 8.1 Staff, whose duties concern the carriage of dangerous goods, should receive training in the requirements governing the carriage of such goods appropriate to their responsibilities and duties.
- 8.2 All staff should receive the following training:
- General Awareness Training – to be familiar with the general requirements of the provisions for the carriage of dangerous goods;
 - Function Specific Training – detailed training commensurate with their duties and responsibilities in the requirements of the regulations concerning the carriage of dangerous goods;
 - Safety Training – commensurate with the degree of risk of injury or exposure arising from an incident involving the carriage of dangerous goods, including loading and unloading, personnel should receive training covering the hazards and dangers presented by dangerous goods.
- 8.3 Details of any training undertaken should be kept by both the employer and the employee. This training should be periodically supplemented with refresher training to take account of changes in regulations.

Driver training

- 8.4 Drivers of vehicles over 3.5 tonnes gross vehicle weight carrying in excess of 333kg of soiled instruments (weight includes all packaging, but excludes the weight of the trolley) must hold an ADR Vocational Training Certificate (VTC) issued by the DfT / DVLA stating that they have attended and passed an examination(s).
- 8.5 With effect from 1 January 2007 the ADR VTC requirement is extended to all vehicles carrying dangerous goods over the 333kg threshold regardless of the weight of the vehicle.
- 8.6 Decontamination units should ensure that all drivers receive the appropriate training, including those using their own vehicles (cars).

Dangerous goods security

- 8.7 All persons involved in the carriage of dangerous goods should consider the security requirements associated with the substance, consideration should be given to the appropriateness of:
- the carrier;
 - any temporary storage sites, vehicles and depots;

- staff responsible for the carriage of such goods;
- staff security training; and
- the need for a security plan.

Dangerous Goods Safety Adviser (DGSA)

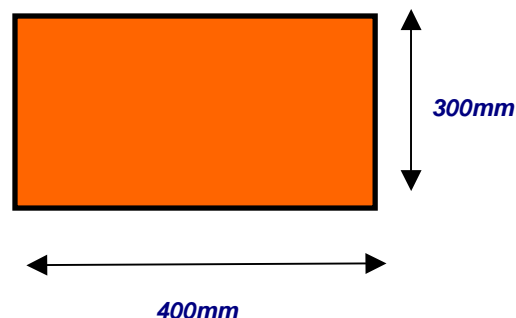
- 8.8 Those responsible for the transporting dangerous goods should appoint a Dangerous Goods Safety Adviser (DGSA) when the total amount of soiled instruments (excluding the weight of the trolley) in an individual load is in excess of 333kg.
- 8.9 The Dangerous Goods Safety Adviser duties should include:
- monitoring compliance with the requirements governing the carriage of dangerous goods;
 - advising the undertaking on the carriage of dangerous goods;
 - preparing an annual report on the undertakings activities (for the CDU / LDU) in the carriage of dangerous goods. Such reports shall be kept for five years and made available to the national authorities on request.
- 8.10 A DGSA can be appointed internally or may be an external consultant. Many NHS Boards have suitably qualified staff. It is unlikely that a DGSA will be a full-time post in a Central Decontamination Unit.

9. Carrier responsibilities

- 9.1 A carrier is defined as the enterprise which carries out the transport operation with or without a contract.
- 9.2 On many occasions, NHS bodies fulfil the role of both consignor and carrier.
- 9.3 The regulations note clearly the responsibilities of carriers, which are as follows:
- the carrier must ascertain that the dangerous goods to be carried are authorised for carriage in accordance with the regulations;
 - that the prescribed documentation is on board the transport unit (vehicle);
 - that a visual check of the vehicle and load is carried out to ensure no obvious defects, leaks from packages etc;
 - that vehicles are not overloaded;
 - ensure that the danger labels and markings for the vehicle are affixed;
 - ensure that the equipment prescribed in the written instructions for the driver are onboard the vehicle.

Vehicle markings

- 9.4 Vehicles carrying loads less than 333kg (excluding the weight of the trolley) are not required to show specific dangerous goods marking. However, all packages on the vehicle must be appropriately labelled.
- 9.5 Plain orange plates are required to be displayed on the front and rear of the vehicles carrying in excess of 333kg of soiled instruments (excluding the weight of the trolley). These must be rectangular reflectorised orange plates (400 mm x 300mm with a black border of 15mm) and clearly visible.



- 9.6 If the size and construction of the vehicle are such that the available surface area is insufficient to affix these plates then the dimensions can be reduced to 300mm for the base, 120mm for the height and 10mm for the black border.

- 9.7 Orange plates should only be used on vehicles carrying in excess of 333kg of soiled instruments (dangerous goods). The plates should be removed or 'folded away' when the vehicle is not carrying dangerous goods.

Spillages

- 9.8 If any substances have leaked and spilled in a vehicle, it may not be re-used until after it has been thoroughly decontaminated i.e. cleaned and if necessary disinfected. Any other goods and articles carried in the same vehicle must be examined for possible contamination.

10. Vehicle equipment

10.1 Vehicles carrying soiled instruments must carry at least one portable fire extinguisher with a minimum capacity of 2kg dry powder suitable for fighting a fire in the engine or cab of the vehicle.

10.2 Each vehicle (carrying in excess of 333kg) must have:

- at least one wheel chock or scotch of a size suitable for the weight of the vehicle;
- two self standing warning signs (e.g. reflective cones, triangles or flashing amber lights, which are independent from the vehicle's electrical equipment);
- suitable warning vest or warning clothing for each member of the vehicle crew;
- a pocket lamp for each member of the vehicle crew;
- the personal protection equipment necessary to take the additional or special actions referred to in the instructions in writing.

In addition:

- no passengers other than members of the vehicle crew may be carried;
- the crew of the vehicle must know how to operate the fire fighting equipment;
- a driver or driver's assistant must not open a package containing dangerous goods;
- the parking brake must be applied to the vehicle when parked;
- if any substances have leaked and been spilled in a vehicle or container, it may not be re-used until after it has been thoroughly decontaminated i.e. cleaned and if necessary disinfected.

Appendices

Appendix A: Summary of requirements

Appendix B: Frequently Asked Questions (FAQs)

Appendix C: Sources of further information

Appendix D: Category A – Highly Infectious Substances

Appendix A: Summary of Requirements

1. Classification

Un Number	UN3291
Proper Shipping Name	Clinical Waste Unspecified, (Soiled Instruments) NOS
Class	6.2
Packing Group	II

2. Packaging

UN-approved packages must be used at all times.

Packing Instructions P621 and LP621 apply:

a.

Rigid, leak-proof packaging for solids and liquids, containing sufficient absorbent materials to absorb the entire amount of liquid present and the packaging needs to be capable of retaining liquids.

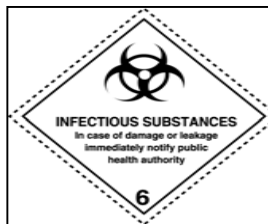
b. In addition, packages to contain sharp objects, such as certain instruments, shall be resistant to puncture and retain liquids:

- Examples:
- > Instrument boxes
 - > Trolleys or cabinets

Package sizes may vary, there is no set limit to the package size.

Also see the website: www.pira.co.uk/pack for a list of approved packaging suppliers.

3. Labelling of Packages



Each package should bear the label (hazard symbol) for Class 6.2 and the UN Number: UN3291.

4. Transport Document Lay-Out

The transport document should carry the following information:

- > Name and Address of the consignor;
- > Name and Address of the consignee;
- > UN Number;
- > Proper Shipping Name;
- > Class;
- > Packing Group;
- > Description of the packages;
- > Quantity carried.

Example wording:

UN3291 Clinical Waste Unspecified, (Soiled Medical Instruments)N.O.S*, Class 6.2, Packing Group II
6 bins x 25 kg
150 kg

****Not Otherwise Specified***

5. Miscellaneous Vehicle Equipment

Each vehicle should be equipped with the following when the load of the vehicle exceeds 333kg:

- > at least one wheel chock;
- > two self standing warning signs;
- > warning vest for each member of the vehicle crew;
- > a pocket lamp for each member of the vehicle crew.

6. Smoking

No smoking is allowed whilst loading/unloading dangerous goods, however other legislation states no smoking in the vehicle at any time.

7. Other Transport Requirements:

	Car	Van up to 3.5t		Van/Truck 3.5t-7.5t	
Loaded with:	<333kg	<333kg	>333kg	<333kg	>333kg
PPE	No*	No*	As per TREMcard	No*	As per TREMcard
Fire Extinguishers	2kg minimum	2kg minimum	2kg minimum	2kg minimum	2kg minimum
Orange Plates	No	No	Yes	No	Yes
Transport Document	Yes	Yes	Yes	Yes	Yes
Driver Training Level	Dangerous Goods Awareness Training	Dangerous Goods Awareness Training	Full ADR VTC Class 6 Substances	Dangerous Goods Awareness Training	Full ADR VTC Class 6 Substances
Miscellaneous Vehicle Equipment	No	No	Yes	No	Yes
TREMcard	No**	No**	Yes	No**	Yes
Security Training	Yes	Yes	Yes	Yes	Yes

* PPE: Although not strictly required, consideration should be given to carrying PPE.

** TREMcard: Although written instructions in writing not strictly required, it is advisable to carry a TREMcard

8. Passengers

Apart from members of the vehicle crew, no passengers may be carried in transport units carrying dangerous goods.

9. Transport by Taxi

In view of the above, transport by taxi is not advisable as dangerous goods awareness training is required.

10. Spillages

Any spillage must be cleaned and disinfected where necessary.

11. Instruments sent by Post

All the above packaging and document requirements apply. The Post Office sell their own rigid packaging, these are mainly used for the carriage of diagnostic specimens, but are also suitable for the carriage of soiled instruments.

However, the Regulations state that all those carrying dangerous goods require a level of awareness training commensurate with their role. Therefore sending soiled instruments by post is to be avoided.

12. Dangerous Goods Awareness and Security Training

All staff whose duties concern the carriage of dangerous goods, should receive training in the requirements governing the carriage of such goods appropriate to their role and responsibilities.

This training should include general awareness training, function specific training and safety and security training.

13. Orange Plates

Plain orange plates are required to be displayed on the front and rear of the vehicles with a load greater than 333kg. These must be rectangular, reflectorised orange plates (400 mm x 300mm with a black border of 15mm) and set in a vertical plane and clearly visible.



If the size and construction of the vehicle are such that the available surface area is insufficient to affix these plates then the dimensions can be reduced to 300mm for the base, 120mm for the height and 10mm for the black border.

Appendix B: Frequently Asked Questions (FAQs)

Q. What are the current regulations concerning the transport of dangerous goods by road?

A. The Carriage of Dangerous Goods and use of Transportable Pressure Equipment Regulations 2004 (as amended), which are regulations that are aligned to the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)

Q. What is covered by these regulations?

A. There are nine different UN Classes of dangerous goods, some of which are sub-divided into different divisions:

Class 1	Explosives
Class 2	Gases (Flammable gas, Toxic gas, Non Flammable Non Toxic Gas)
Class 3	Flammable Liquids
Class 4.1	Flammable Solids
Class 4.2	Spontaneously Combustible Materials
Class 4.3	Dangerous when Wet
Class 5.1	Oxidizing Substances
Class 5.2	Organic Peroxides
Class 6.1	Toxic Substances
Class 6.2	Infectious Substances
Class 7	Radioactive Materials
Class 8	Corrosive Substances
Class 9	Miscellaneous dangerous substances and articles.

Q. Who are the enforcement bodies governing the Dangerous Goods Regulations?

A. The Department for Transport, Dangerous Goods Branch formulates the legislation, with the Health and Safety Executive as the enforcement agency. However, The Health and Safety Executive has relinquished their responsibilities for roadside enforcement to the Vehicle Operators Services Agency (VOSA) and the police.

Q. Who do the Regulations apply to?

A. The Regulations apply to consignors, loaders, packers, fillers, carriers and drivers involved in the carriage of dangerous goods by road.

Q. How should the soiled instruments and clinical waste be packed?

A. All dangerous goods should be packed in a UN approved package which meets all the criteria for design and testing. In the UK, the Department for Transport has approved only one Sterile Services trolley and information on this can be obtained from

http://www.piraconsulting.com/pc/dg/dg_pad.php and follow the link to UK Dangerous Goods Packing Certification Scheme.

Q. How should the soiled instruments and clinical waste be transported?

A. Although no specific vehicle requirements are laid out for the transport of soiled instruments, several criteria must be met, for example “Packages shall be loaded on closed or sheeted vehicle” and “if any substances have leaked and been spilled in a vehicle or container, it may not be re-used until after it has been thoroughly decontaminated i.e. cleaned and if necessary disinfected”.

Q. Does the vehicle used for transporting soiled instruments need to be marked or carry any special equipment?

A. Yes, if the vehicle is carrying over 333kgs total load, then a plain orange panel must be displayed to the front and rear of the vehicle. It must also carry a 2kg dry powder fire extinguisher in the vehicle cab, one wheel chock, warning triangles, a pocket lamp and the vehicle crew must have warning vests or clothing. The vehicle crew must also have any personal protective equipment that is noted in the written emergency instructions.

If the total load is below the 333kg load threshold then the requirements for wheel chocks, warning triangles, pocket lamps etc may be dispensed with.

Q. What documents must accompany the vehicle?

A. All dangerous goods carriage, when the load is above 333kg, must be accompanied by a transport document and written emergency instructions (TREMcard) and the driver must have received suitable vocation accredited training.

Q. Do I need any specific qualifications?

A. Yes, the Regulations state that persons employed, whose duties concern the carriage of dangerous goods, shall receive training in the requirements governing the carriage of such goods appropriate to their responsibilities and duties. Drivers of vehicles over 3.5 tonnes gross vehicle weight are also required to attend a training course and pass examinations on the

particular requirements that must be met during the carriage of dangerous goods. This is referred to as ADR Training and the certificate the driver receives on passing examinations is known as an ADR Vocation Training Certificate (VTC). It must be noted that driver training is currently only required when the load carried is above 333kgs. Each undertaking (CDU / LDU), whose activities include the carriage, or related packing, loading, filling or unloading of dangerous goods must appoint one or more safety advisers. This person(s) again must pass an examination and attain the Dangerous Goods Safety Adviser (DGSA) qualification. This person(s) can be appointed internally or by using external consultants.

Q. How can appointing a DGSA help?

- A. It is the DGSA's responsibility to prepare an Annual Report concerning the activities of the undertaking in regard to the carriage of dangerous goods. In preparing this annual report the DGSA must:
1. Monitor compliance with the requirements governing the carriage of dangerous goods – such as identification of dangerous goods being transported, practices in place for purchasing means of transport for dangerous goods, procedures for checking equipment being used in connection with the transport of dangerous goods;
 2. Advise on the undertaking on the carriage of dangerous goods.

Appendix C: Sources of further information

Documents:

The Carriage of Dangerous Goods and Use of Transportable Pressure Receptacles Regulations 2004 SI 2004 No. 568 ISBN 0-11-049063-0

The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment (Amendment) Regulations 2005 SI 2005 No.1732 ISBN 0-11-073031-3

European Agreement Concerning the International Carriage of Dangerous Goods by Road (ADR) ISBN 92-1-139097-4

Authorisation 53 – can be downloaded from the Department for Transport, Dangerous Goods Home Page:

http://www.dft.gov.uk/stellent/groups/dft_freight/documents/divisionhomepage/035313.hcsp

Internet Sites

www.fta.co.uk

www.hse.gov.uk/cdg/manual/commonprobs.htm#clinical_waste

www.dft.gov.uk/security

www.dft.gov.uk/authorisations

www.vosa.gov.uk

www.piranet.co.uk/packs

Appendix D: Category A – Highly Infectious Substances

It is highly unlikely that Central Decontamination Units will encounter highly infectious materials classified as Category A in Carriage Regulations. Such materials should not be accepted without necessary precautions being taken to protect staff and the public. Specific advice should be sought on a case-by-case basis from suitably qualified infection control teams and the HSE. If such material is transported to Central Decontamination Units a police escort may be necessary.

The table, shown below, shows the indicative pathogen/disease list for Category A substance affecting humans (classified as UN 2814) and animals (classified as UN 2900).

INDICATIVE EXAMPLES OF INFECTIOUS SUBSTANCES INCLUDED IN CATEGORY A IN ANY FORM UNLESS OTHERWISE INDICATED	
UN Number and name	Micro-organism
UN 2814	
<i>Infectious substances affecting humans</i>	<i>Bacillus anthracis</i> (cultures only) <i>Brucella abortus</i> (cultures only) <i>Brucella melitensis</i> (cultures only) <i>Brucella suis</i> (cultures only) <i>Burkholderia mallei</i> - <i>Pseudomonas mallei</i> – Glanders (cultures only) <i>Burkholderia pseudomallei</i> – <i>Pseudomonas pseudomallei</i> (cultures only) <i>Chlamydia psittaci</i> - avian strains (cultures only) <i>Clostridium botulinum</i> (cultures only) <i>Coccidioides immitis</i> (cultures only) <i>Coxiella burnetii</i> (cultures only) Crimean-Congo haemorrhagic fever virus Dengue virus (cultures only) Eastern equine encephalitis virus (cultures only) <i>Escherichia coli</i> , verotoxigenic (cultures only) Ebola virus Flexal virus <i>Francisella tularensis</i> (cultures only) Guanarito virus Hantaan virus Hantaviruses causing haemorrhagic fever with renal syndrome Hendra virus Hepatitis B virus (cultures only) Herpes B virus (cultures only)

Human immunodeficiency virus (cultures only)

UN Number and name	Micro-organism
UN 2814 (continued)	Highly pathogenic avian influenza virus (cultures only) Japanese Encephalitis virus (cultures only) Junin virus Kyasanur Forest disease virus Lassa virus Machupo virus Marburg virus Monkeypox virus <i>Mycobacterium tuberculosis</i> (cultures only) Nipah virus Omsk hemorrhagic fever virus Poliovirus (cultures only) Rabies virus (cultures only) <i>Rickettsia prowazekii</i> (cultures only) <i>Rickettsia rickettsii</i> (cultures only) Rift Valley fever virus (cultures only) Russian spring-summer encephalitis virus (cultures only) Sabia virus <i>Shigella dysenteriae type 1</i> (cultures only) Tick-borne encephalitis virus (cultures only) Variola virus Venezuelan equine encephalitis virus (cultures only) West Nile virus (cultures only) Yellow fever virus (cultures only) <i>Yersinia pestis</i> (cultures only)
UN No. 2900 Infectious substances affecting animals	African swine fever virus African swine fever virus Avian paramyxovirus Type 1 – Velogenic only Newcastle disease virus Bluetongue virus Classical swine fever virus Foot and mouth disease virus Lumpy skin disease virus <i>Mycoplasma mycoides</i> - Contagious bovine pleuropneumonia Peste des petits ruminants virus Rinderpest virus Sheep-pox virus Goatpox virus Swine vesicular disease virus Vesicular stomatitis virus

UN 2900 are all in cultures only

The following classifications and descriptions should be used for Category A infectious substances:

UN Class:	6.2
UN No.:	UN 2814
PSN:	Infectious Substances Affecting Humans
	Infectious Substances Affecting Humans (in refrigerated liquid nitrogen)

PG: Not allocated

UN Class:	6.2
UN No.:	UN 2900
PSN:	Infectious Substances Affecting Animals
	Infectious Substances Affecting Animals (in refrigerated liquid nitrogen)

PG: Not allocated

There are strict packaging requirements for Category A infectious substances and packaging used for 'standard' soiled instruments (Category B – UN3291) is **not** suitable. Advice should be sought regarding the type of packaging available and its suitability in relation to Central Decontamination Units if Category A infectious substances are likely to be accepted on site.

Glossary

ADR	<p>l'Accord européen relatif au transport international des marchandises Dangereuses par Route.</p> <p>The European agreement concerning the carriage of dangerous goods by road.</p>
CDU	Central Decontamination Unit
CHIP	Chemicals (Hazard Information and Packaging) Regulations 1994
Clinical waste	Any waste which consists wholly or partly of human or animal tissue, blood or other body fluids, excretions, pharmaceuticals, dressings, sharps etc.
Consignee	The receiver of the dangerous goods.
Consignment Note	The Transport document used for the carriage of Hazardous Wastes in the UK.
Consignor	The sender of the dangerous goods.
Controlled Waste	Wastes from households, industry and commerce, excluding mines, quarries, sewage and some radioactive wastes.
COSHH	Control of Substances Hazardous to Health
COTC	Certificate of Technical Competence
DfT	Department for Transport
DGN	Dangerous Goods Note
DGSA	Dangerous Goods Safety Adviser
SEPA	Environment Agency
EPA	Environmental Protection Agency (USA)
EWC	European Waste Catalogue
Hazard class	Nine divisions of dangerous goods determined by their primary risk.
HSE	Health and Safety Executive

IATA	International Air Transport Association
IBC	Intermediate Bulk Container
IMDG	International Maritime Dangerous Goods
Infectious substance	Substances which are known or are reasonably expected to contain pathogens.
Label	A diamond shape indicating a UN hazard class.
LDU	Local Decontamination Unit
Limited Quantities	A method of carrying dangerous goods that are exempted from most legislation by virtue of the small volumes in each package.
Load Limit	The quantity of dangerous goods that must be loaded onto a vehicle at which the ADR regulations will be applied to its journey.
NOS	Not Otherwise Specified
Packing Group	A method of indicating varying risks posed by different substances within a single UN class. PGI- most dangerous, PGII – medium danger, PGIII – Least danger.
Placard	Essentially a large chemical hazard diamond attached to a vehicle or tank.
PSN	Proper Shipping Name
RID	The European agreement for the carriage of dangerous goods by rail.
Risk Group	A method of subdividing Infectious substances in accordance with their risk
Transport Category	Materials are assigned to a category of 0-4 in order to determine the Load Limits at which regulation is applied.
TREMcard	TRansport EMergency card. The world standard format for the drivers ‘Instructions In Writing’.
UN Class	Allocation of substances according to the main hazard danger.
UN Number	An internationally recognised four-digit identification number for an item of dangerous goods.

VTC

Vocational Training Certificate