



New requirements for the transport of explosives by road

A comparison of GB Explosives Transport Regulations and ADR 2001

Prepared by **Davas Limited**
for the Health and Safety Executive

CONTRACT RESEARCH REPORT
366/2001

© Crown copyright 2001

Applications for reproduction should be made in writing to:
Copyright Unit, Her Majesty's Stationery Office,
St Clements House, 2-16 Colegate, Norwich NR3 1BQ

First published 2001

ISBN 0 7176 2097 2

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means (electronic, mechanical, photocopying, recording or otherwise) without the prior written permission of the copyright owner.



New requirements for the transport of explosives by road

A comparison of GB Explosives Transport Regulations and ADR 2001

Dr Tom Smith
Davas Limited
8 Aragon Place
Kimbolton
Huntingdon
Cambs PE28 0JD
United Kingdom

GB dangerous goods transport regulations are set to be replaced by a single regulation adopting the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) to be entitled the Carriage of Dangerous Goods by Road and Rail Regulations (CDGRR). This paper compares the existing regulations for the GB explosives sector with the draft text of ADR 2001 in order to identify areas where differences occur and to highlight where there will be an impact on GB industry.

This report and the work it describes were funded by the Health and Safety Executive (HSE). Its contents, including any opinions and/or conclusions expressed, are those of the author alone and do not necessarily reflect HSE policy.

CONTENTS

1. INTRODUCTION	3
2. SUMMARY OF GB EXPLOSIVES TRANSPORT REGULATIONS	3
2.1 CLER	3
2.2 PEC	4
2.3 CER	4
2.3.1 AEVR	4
2.3.2 CER SUITABILITY OF VEHICLES ACOP	4
2.4 TDGSA	4
2.5 CDGDT	4
2.6 OTHER REGULATIONS	4
2.6.1 CDG	5
2.6.2 CDGCPL	5
2.6.3 ACL	5
2.6.4 ARTM	5
2.6.5 CDG(A)	5
2.6.6 COER	5
3. OVERVIEW OF 2001 ADR FOR TRANSPORT OF EXPLOSIVES	6
3.1 SCOPE AND FORMAT	6
4. SPECIFIC DIFFERENCES BETWEEN GB REGS AND ADR	8
5. COMPARISON TABLES	11
TABLE 3 CLER	12
TABLE 4 PEC	14
TABLE 5 CER	17
TABLE 6 TDGSA	24
TABLE 7 CDG(DT)	26
6. NOTES AND EXPLANATIONS	27
6.1 NOTES FROM THE COMPARISON TABLES	27
6.3 COMPARISON OF EXEMPTED QUANTITIES	29
7. RECOMMENDATIONS FOR FURTHER WORK	30
8. EXISTING ADR ARTICLE 6.10 DEROGATIONS	30
9. ISSUES OF MAJOR CONCERN	35
10. ABBREVIATIONS	36
11. ACKNOWLEDGEMENTS	36

1. INTRODUCTION

This report examines the changes envisaged from the adoption of ADR 2001 into domestic legislation following enactment of the proposed Carriage of Dangerous Goods by Road and Rail Regulations (CDGRR). It is specifically concerned with the changes to explosive regulations.

The comparison of GB regulations and ADR 2001 is made in tables in which each significant regulation or clause within the relevant GB regulation is cross indexed to the relevant section in ADR 2001 and comments and further notes given. Obvious discrepancies, omissions or extensions are identified and highlighted.

2. SUMMARY OF GB EXPLOSIVES TRANSPORT REGULATIONS

Since 1983, GB explosives transport legislation has followed the UN Recommendations on the Transport of Dangerous Goods (UN Orange Book) concerning classification of explosives as presented for transport (CLER), their packaging (PEC), and requirements during transport itself (CER).

GB regulations are supported by Approved Code of Practice (ACoPs), Approved Documents, HSE Guidance papers and Industry/HSE guides. Where relevant these have been examined for consistency with ADR 2001.

The majority of GB explosive transport legislation is disapplied to transport under the control of the armed forces, and although ADR is also disapplied to military transport (Article 1 of the ADR framework agreement), MOD in the GB have indicated that they can adopt most ADR provisions for both domestic and international journeys to the extent that they will be adopted by ADR and with certain exemptions available. Although the ADR agreement and the ADR Framework Directive do not apply to the armed forces, the MOD policy is to comply. On 7 July 2000 the Secretary of State for Defence updated his policy statement on Health and Safety in MOD. His policy is to comply with requirements of HSWA and subordinate legislation and only invoke any powers to disapply legislation on the grounds of national security when such action is absolutely essential for the maintenance of operations capability.

2.1 CLER

The Classification and Labelling of Explosives Regulations 1983 (CLER) adopt the UN Recommendations on classification of explosives, but crucially extend their application to “keeping” and “supply”. This is the first obvious area where the adoption of ADR 2001 into CDGRR and has already been the subject of discussions between HSE and industry. The Guide to the Classification and Labelling of Explosives Regulations 1983 (HS(R)17) does not add any further constraints on classification over and above CLER and is of relevance only because of the timetable proposed at that time for further regulations (Appendix 1 of the Guide).

2.2 PEC

The Packaging of Explosives for Carriage Regulations 1991 (PEC) also adopt the UN Recommendations for the packaging requirements for transport of explosives in packages up to 400 Kg, and make provision for unpackaged articles over 400 Kg.

2.3 CER

The Carriage of Explosives by Road Regulations 1996 (CER) rely on items being correctly packaged and classified according to CLER and PEC, and detail the provisions in transport required depending on UN Hazard Division and Compatibility Group (or by reference to a specific UN Number) and quantity. CER present the most deviations from the ADR 2001 text, especially where exemptions have been given in the GB for small quantities of specified explosives. These are highlighted in the tables and expanded on in section 7.

The Carriage of Dangerous Goods Explained (HSE162) attempts to present the requirements of the regulations in a mainly tabular form but does not extend on the provisions of the regulations themselves. Information in the guide is referenced where appropriate in the notes accompanying the tabular comparison of CER and ADR 2001.

2.3.1 AEVR

The Approved Requirements for the construction of vehicles intended for the carriage of explosives by road (AEVR) give constructional requirements for Type II and Type III vehicles as described in ADR.

2.3.2 CER SUITABILITY OF VEHICLES ACOP

This Approved Code of Practice relates to regulations 10 and 13 of CER.

2.4 TDGSA

The Transport of Dangerous Goods (Safety Advisers) Regulations 1999 (TDGSA) enact the Council directive 96/35/EC and as such in essence apply the Safety Advisor requirements of ADR. However there are a number of areas where the ADR 2001 text and TDGSA differ and these are described in the tables below.

2.5 CDGDT

The Carriage of Dangerous Goods by Road (Driver Training) Regulations 1996 (CDGDT) give details of vocational training certificates (VTCs) and permits persons holding ADR training certificates to have VTCs for the purposes of the regulations (Reg 3 (8)). The regulations also specify cases where a VTC is not required for certain types and quantities of explosives and these are described in the tables below.

2.6 OTHER REGULATIONS

The following regulations and supporting publications are non-explosive specific requirements for the transport of dangerous goods in the GB.

2.6.1 CDG

The Carriage of Dangerous Goods by Road Regulations 1996 (CDG) cover the transport of all dangerous goods but exclude their application to the carriage of explosives (Schedule 2, 2b) and are not considered further here.

2.6.2 CDGCPL

The Carriage of Dangerous Goods (Classification, Packaging and Labelling) and Use of Transportable Pressure Receptacles Regulations 1996 (CDGCPL) cover the transport of all dangerous goods but specifically excludes their application to explosives (Reg. 3 (1) m) and are not considered further here. They do apply to substances whose subsidiary hazard is “explosive”.

2.6.3 ACL

The Approved Carriage List (ACL) specifically excludes explosives except where there is a subsidiary risk of explosion from the goods being transported. They are not considered further here.

2.6.4 ARTM

The Approved Requirements and test methods for the classification and packaging of dangerous goods for carriage (ARTM) only apply to desensitised explosives where the substance is subject to the provisions of CLER but are classified as flammable solids. They are not considered further here.

2.6.5 CDG(A)

The Carriage of Dangerous Goods (Amendment) Regulations 1999 (CDG(A)) redefine “Class 1” in CLER to align with the UN Recommendations, and modify certain clauses of CLER. These are addresses where relevant in the notes relating to the tabular comparison of CLER and ADR 2001.

CDG (A) also amends PEC and these amendments are addresses where relevant in the notes relating to the tabular comparison of PEC and ADR 2001.

Part 1 (2) of schedule 7 of CDG (A) relates to the requirements for loading, stowage, unloading and cleaning of large containers and wagons carrying explosives.

Part III of schedule 7 gives the form of emergency information to be carried.

2.6.6 COER

The Control of Explosives Regulations 1991 (COER) do not impact directly on the adoption of ADR 2001 and the provisions of CDGRR. However they are included here because it has been suggested that a revised COER will incorporate the elements of GB explosive transport regulations not addressed by ADR 2001 and thus CDGRR. These include, for instance, the requirement for HSE to classify explosives in the GB, security aspects of transport (eg Double Manning), and the “private use” aspects of transport explicitly excluded from ADR 2001. However the current revised drafts of COER also explicitly exclude fireworks from the

provisions of COER and consideration will need to be given in the future if clauses concerning transport of fireworks are to be reintroduced to COER.

3. OVERVIEW OF 2001 ADR FOR TRANSPORT OF EXPLOSIVES

3.1 SCOPE AND FORMAT

ADR 2001 is completely reorganised from previous versions and no longer is reliant on marginal numbers pertaining to specific classes of dangerous goods or UN numbers.

Although this may be confusing for people used to the structure and layout of previous editions of ADR, the new format is considerably more logical and easier to navigate. The format is now in line with the UN Orange Book and the RID agreement, so allowing a direct read across between each agreement.

ADR 2001 is also arranged differently to previous editions of ADR and the brief contents are given below (Table 1).

**Table 1
Brief contents and layout of ADR 2001**

Annex/ Volume	Part/Chapter	Title	
Annex A	Part 1	GENERAL PROVISIONS	
	Chap 1.1	Scope & Applicability	
	Chap 1.2	Definitions and units of measurement	
	Chap 1.3	Training of persons involved in the carriage of DG	
	Chap 1.4	Safety obligations of the participants	
	Chap 1.5	Derogations	
	Chap 1.6	Transitional measures	
	Chap 1.8	Checks and other support measures to ensure compliance with safety requirements	
	Chap 1.9	Transport restrictions by the competent authorities	
	Part 2	CLASSIFICATION	
	Chap 2.1	General provisions	
	Chap 2.2	Class specific provisions	
	Chap 2.3	Test methods	
	Part 3	DANGEROUS GOODS LIST AND QUANTITY THRESHOLD EXEMPTIONS	
	Chap 3.1	General	
	Chap 3.2	List of dangerous substances and articles in UN number order	
	Vol II	Chap 3.3	Special provisions applicable to certain articles or substances
		Chap 3.4	Limited quantities
		Part 4	PACKING AND TANK PROVISIONS
Chap 4.1	Use of packagings, including IBCs and large packagings		

Annex/ Volume	Part/Chapter	Title
	Part 5	CONSIGNMENT PROCEDURES
	Chap 5.1	General provisions
	Chap 5.2	Marking and labelling
	Chap 5.3	Placarding and marking of containers, MEGCs ... and vehicles
	Chap 5.4	Documentation
	Chap 5.5	Special requirements
	Part 6	REQUIREMENTS FOR THE CONSTRUCTION AND TESTING OF PACKAGINGS ETC
	Chap 6.1	Requirements for the construction and testing of packagings
	Chap 6.6	Requirements for the construction and testing of large packagings
	Part 7	PROVISIONS CONCERNING THE CONDITIONS OF CARRIAGE, LOADING, UNLOADING, & HANDLING
	Chap 7.1	General provisions
	Chap 7.2	Provisions concerning carriage in packages
	Chap 7.5	Provisions concerning loading, unloading and handling
Annex B	Part 8	REQUIREMENTS FOR VEHICLE CREWS, EQUIPMENT, OPERATION AND DOCUMENTATION
	Chap 8.1	General requirements concerning transport units and equipment on board
	Chap 8.2	Requirements concerning the training of the vehicle crew
	Chap 8.3	Miscellaneous requirements to be complied with by the vehicle crew
	Chap 8.4	Requirements concerning the supervision of vehicles (Parking)
	Chap 8.5	Additional requirements relating to particular classes or substances
	Part 9	REQUIREMENTS CONCERNING THE CONSTRUCTION AND APPROVAL OF VEHICLES
	Chap 9.1	General requirements concerning the construction and approval of vehicles
	Chap 9.2	Requirements concerning the construction of base vehicles
	Chap 9.3	Additional requirements concerning complete or completed EX/II or EX/III vehicles

The substantive information in ADR relevant to each separate UN numbered explosive is referenced in a large table in which each appropriate section and special conditions are identified. A sample of the table for selected UN numbers is given in Figure 1 and Table 2 below.

4. SPECIFIC DIFFERENCES BETWEEN GB REGS AND ADR

ADR does not apply to the military (Article 1 of the ADR Framework Directive), and also does not apply to (1.1.3.1):

- (a) the carriage of dangerous goods by private individuals where the goods in question are packaged for retail sale and are intended for their personal or domestic use or for leisure or sporting activities;
- (b) the carriage of machinery or equipment not specified in ADR and which happen to contain dangerous goods in their internal or operational equipment;
- (c) the carriage undertaken by enterprises which is ancillary to their main activity, such as deliveries to building or civil engineering sites, or in relation to surveying, repairs and maintenance, in quantities of not more than 450 litres per packaging and within the maximum quantities specified in 1.1.3.6.
- (d) the carriage undertaken by, or under the supervision of, the emergency services, in particular by breakdown vehicles carrying vehicles which have been involved in accidents or have broken down and contain dangerous goods;
- (e) emergency transport intended to save human lives or protect the environment provided that all measures are taken to ensure that such transport is carried out in complete safety.

Carriage undertaken by such enterprises for their supply or external or internal distribution does not fall within the scope of this exemption;

Figure 1
Illustrative selection of tabular entries for explosives in ADR 2001

UN No.	Name and description	Class	Classification Code	Packing group	Labels	Special provisions	Limited quantities	Packaging			Transport category	Special provisions for carriage			
								Packing instructions	Special packing provisions	Mixed packing provisions		Packages	Bulk	Loading, unloading and handling	Operation
(1)	(2)	(3a)	(3b)	(4)	(5)	(6)	(7)	(8)	(9a)	(9b)	(15)	(16)	(17)	(18)	(19)
0004	AMMONIUM PICRATE dry or wetted with less than 10% water, by mass	1	1.1D		1		LQ0	P112(a) (b)(c)	PP26	MP20	1	V2 V3		CV1 CV2 CV3	S1
0005	CARTRIDGES FOR WEAPONS with bursting charge	1	1.1F		1		LQ0	P130		MP23	1	V2		CV1 CV2 CV3	S1
0006	CARTRIDGES FOR WEAPONS with bursting charge	1	1.1E		1		LQ0	P130 LP101	PP67 L1	MP21	1	V2		CV1 CV2 CV3	S1
0007	CARTRIDGES FOR WEAPONS with bursting charge	1	1.2F		1		LQ0	P130		MP23	1	V2		CV1 CV2 CV3	S1
0009	AMMUNITION, INCENDIARY with or without burster, expelling charge or propelling charge	1	1.2G		1		LQ0	P130 LP101	PP67 L1	MP23	1	V2		CV1 CV2 CV3	S1
0010	AMMUNITION, INCENDIARY with or without burster, expelling charge or propelling charge	1	1.3G		1		LQ0	P130 LP101	PP67 L1	MP23	1	V2		CV1 CV2 CV3	S1
0012	CARTRIDGES FOR WEAPONS, INERT PROJECTILE or CARTRIDGES, SMALL ARMS	1	1.4S		1.4		LQ0	P130		MP23 MP24	4	V2		CV1 CV2 CV3	S1
0014	CARTRIDGES FOR WEAPONS, BLANK or CARTRIDGES, SMALL ARMS, BLANK	1	1.4S		1.4		LQ0	P130		MP23 MP24	4	V2		CV1 CV2 CV3	S1
0015	AMMUNITION, SMOKE with or without burster, expelling charge or propelling charge	1	1.2G		1+8	204	LQ0	P130 LP101	PP67 L1	MP23	1	V2		CV1 CV2 CV3	S1
0016	AMMUNITION, SMOKE with or without burster, expelling charge or propelling charge	1	1.3G		1+8	204	LQ0	P130 LP101	PP67 L1	MP23	1	V2		CV1 CV2 CV3	S1
0018	AMMUNITION, TEAR-PRODUCING with burster, expelling charge or propelling charge	1	1.2G		1+ 6.1 +8		LQ0	P130 LP101	PP67 L1	MP23	1	V2		CV1 CV2 CV3 CV28	S1

Table 2
ADR 2001 Dangerous Goods List - Column headings

		ADR Section	Comments
UN No			
Name and Description		3.1.2	Shipping name and description
Class		2.2	
Classification Code		2.2	UN Hazard
Packing Group		2.1.1.3	Division/Compatibility group Certain wetted explosives may be assigned to packing group I and classified as flammable solids (4.1) - eg UN 0214
Labels		5.2.2	Label type and subsidiary label if required
Special Provisions		3.3	Eg may be classified as flammable solid for small quantities eg UN 0220
Limited Quantities		3.4.6	ALL explosives have LQ0 provision - ie no quantity threshold exemptions
Packaging	Packing Instructions	4.1.4	Packing method (P# or LP#)
	Special Packing Provisions	4.1.4	Special packing provisions (PP#)
	Mixed Packing provisions	4.1.10	Special provisions for mixed packs (eg MP2 - shall not be packed with other goods)
UN Portable Tank	Instructions	4.2.4.2	n/u
	Special provisions	4.2.4.3	n/u
ADR Tank	Tank Code	4.3	n/u
	Special provisions	4.3.5, 6.8.4	n/u
Vehicle for tank carriage		9.1.1.2	n/u
	Transport Category	1.1.3.6	Defines total quantity per transport unit (but see also 7.5.5.2.1)
Special provisions for carriage	Packages	7.2.4	Eg V2 - may only be carried in specified vehicles
	Bulk	7.3.3	n/u
	Loading, unloading and handling	7.5.11	Eg CV1 - No loading or unloading in public place without permission
	Operation	8.5	Eg S1 - Additional transport requirements
Hazard Identification No		5.3.2.3	n/u
UN No			Repeated
Name and Description		3.1.2	Shipping name and description (repeated)

n/u = not used for any explosives listed in the table

5. COMPARISON TABLES

The tables presented below compare each major regulation and clause within selected GB regulations and compare them to ADR 2001. The column headings for each table are as follows:-

GB Regulation	The GB regulation examined. Each regulation is presented as a new table. Abbreviations are as in the table in section 9
Reg No	The major regulation number, or number of a schedule
Sub No	The clause number, or part of a schedule
Summary	Brief summary of the requirements of each regulation and sub-regulation relevant to this study
ADR Ref	The ADR 2001 reference to the relevant section
Section/Details	Brief summary or section heading for the reference in ADR
Comments	General comments and applicability
Notes	Reference to detailed notes in section 6 below

The tabulated comparison of ADR and domestic explosive transport regulations is also available on the author's website in Lotus 1-2-3 and Microsoft Excel format.

<http://www.davas.co.uk/adr2001/comparison.htm>

Table 3
Comparison of CLER with ADR 2001

UK Regulation	Reg. No	Sub No	Summary	ADR Ref	Section/Details	Comments	Notes
CLER	1		Citation & Comment				
CLER	2		Interpretation & Definitions			In general follow UN	
CLER	2		Definition of classified	2.2.1	Refers to UN Methods and Tests	Essentially CLER same as ADR	
CLER	2		Definition of supply			ADR applies to transport only - therefore not strictly covered by ADR except where supply involves transport	ADR does not deal with "supply" except where items must be transported to the point of supply.
CLER	3	1	Classification of articles in packaging or not, packaged substances and combinations	2.2.1	Refers to UN Methods and Tests		See 1.1.3.1 for general exemptions. ADR only applies to transport operations and the elements of CLER which presently require classification for non-transport activities will presumably be replaced by the requirement to determine Hazard Type under the Manufacture and Storage of Explosives Regulations (MSER).
CLER	3	2	Scope - conveyed, kept or supplied	1.1.2.1		ADR applies to transport only	
CLER	4	1	Disapplication to UN 0190 under specific circumstances	5.4.1.2.1c	Special provisions for samples		ADR Ref3.3.1 SP16
CLER	4	1d	Disapplication to aircraft, vessels and hovercraft not to be unloaded in UK	1.1.4.2	Carriage in transport chain	Requires compliance with IMDG code or ICAO instructions	ADR requires compliance with ICAO or IMDG codes
CLER	4	2	Disapplication to "in process of manufacture"	1.1.3.1		ADR does not explicitly exclude such items except by limited quantity provisions.	
CLER	4	3	Disapplication to fireworks, small arms ammunition & combinations at or by retailers	1.1.3.1a	Exemption for retail sale		
CLER	5		Fees			Presumably subject to new Fees Regs - ADR does not explicitly allow or disallow fees.	
CLER	6	1	2 labels on packaging for 1.2, 1.2 and 1.3	5.2.1	Only requires one label except for large packages	Two labels required for non class 1 or 7 packages (5.2.2.1.12)	CLER was amended by CER (1996) Schedule 9 to permit only one label on each package and therefore is consistent with ADR 2001. The second label is for GB security purposes over and above ADR and is likely to be retained but in COER
CLER	6	2	2 labels on unpackaged articles for 1.1, 1.2 and 1.3	5.2.1	Only requires one label except for large packages	See also CER Schedule 9 which amends	As above
CLER	6	3	2 labels for 1.4, 1.5 and 1.6	5.2.1	Only requires one label except for large packages	See also CER Schedule 9 which amends	As above
CLER	6	4	2 labels for 1.4 unpackaged articles (except fireworks)	5.2.1	Only requires one label except for large packages	See also CER Schedule 9 which amends	As above
CLER	6	5	Special labels for packaged articles and substances of UN 0018, 0019, 0020, 0021, 0076, 0077, 0143, 0224, 0301	DG Table 3.2.1	Requires subsidiary labels (6.1 with/without 8)	UN 0020, 0021 prohibited from transport	ADR does not permit the transport of UN 0020 and UN 0021 - these are also prohibited from transport in the UK by virtue of being Compatibility Group K. UK regulations allow for future items with compatibility group K.
CLER	6	6	Special label for 0018, 0019 and 0301 whether packaged or unpackaged	DG Table 3.2.1	Requires subsidiary labels (6.1 + 8)	Whether packaged or unpackaged?	ADR requires subsidiary hazard labels (6.1 and 8) as specified by UN number and does not discriminate here between packaged or unpackaged.
CLER	6	7	Special labels for packaged or unpackaged articles of UN 0015, 0016 or 0303 which are classified as "corrosive" under CDGCPL	DG Table 3.2.1	Requires subsidiary label (8)		ADR requires subsidiary hazard label 8

Table 3
Comparison of CLER with ADR 2001

UK Regulation	Reg. No	Sub No	Summary	ADR Ref	Section/Details	Comments	Notes
CLER	7		Required labelling of articles, substances or combinations that present significant hazard from explosion	DG Table 3.2.1	Subsidiary hazards of non class 1 materials - however no entries in table that require subsidiary explosive labels	CLER requires labelling when kept. ADR does not	ADR only applies to transport operations and the elements of CLER which presently require labelling for non-transport activities will presumably be replaced by the requirement to identify hazards under MSER or the Control of Explosives Regulations (COER)
CLER	8	1	Additional labelling for schedule 4 listed articles			ADR requires labelling of packages	ADR requires the labelling of all packages including overpacks. There is no specific requirement for labelling of inner packages. This is a GB security requirement over and above ADR and is likely to be retained but in COER
CLER	8	2	Additional labelling for schedule 5 listed articles	5.1.2.1	Labelling of overpacks	Inner packagings need to be labelled where overpacks are used. Otherwise packing conforms to general requirements of 5.2.1	ADR requires the labelling of all packages including overpacks. There is no specific requirement for labelling of inner packages.
CLER	9	1	Labelling of unit loads	5.3.1	Refers to requirements in table 3.2.1		
CLER	9	2	Labelling of unit load combinations	5.3.1	Refers to requirements in table 3.2.1		
CLER	10	1	General labelling requirements	5.2.1.1	Requires labelling to be on package unless unpackaged	Label size may be reduced (5.2.2.1.1)	
CLER	10	2	Attachment of labels to small items			Does not appear in ADR (but rarely used?)	Is mentioned in ADR Ref: 5.2.2.1.6
CLER	11		Compliance with CLER satisfies provisions of 1875 Act			Presumably not needed for MSER but transitional arrangements?	MSER will revoke such sections of EA75. Depending of timing of MSER, COER and CDGRR there may need to be transitional arrangements?
CLER	12		Reasonable precautions defence			Not a feature of ADR?	ADR does not include any "reasonable precautions" defence provisions that would be applicable to UK law except where the safety obligations on participants allow for reliance of information passed to them (1.4.2.2.2 etc). 1.4.1.3 would permit, presumably, CDGRR to include such a clause?
CLER	13		HSE is enforcing authority			HSE or DETR?	HSE will continue to be the sole enforcing authority. The Vehicle Inspectorate (and possible the police) will have powers to enforce on behalf on HSE, certain aspects of the new regulations under an agency agreement. The Agency agreement will be with VI not DETR
CLER	14	1	HSE may prepare written exemptions			No provisions for UK specific exemptions by HSE - would need special agreement?	The new regulations will have provision for HSE/ MOD exemptions, but these will need to have a legal basis e.g. an ADR provision or Framework Directive provision where the competent authority may regulate differently in specific circumstances.
CLER	14	2	Requirements for exemptions				
CLER	14	3	Exemptions for military explosives				
CLER	15		Revocations				
CLER	Schedule 1		Divisions		Refers to UN Methods and Tests		
CLER	Schedule 2		Compatibility Groups		Refers to UN Methods and Tests		
CLER	Schedule 3		Labels	5.2			
CLER	Schedule 4		Explosive articles in which outer packaging is to be labelled			ADR requires labelling of packages	See comments on Reg6 + 8 regarding additional security requirements
CLER	Schedule 5		Explosive substances in which inner and outer packaging is to be labelled	5.1.2.1		Inner packagings need to be labelled where overpacks are used. Otherwise packing conforms to general requirements of 5.2.1	ADR requires the labelling of all packages including overpacks. There is no specific requirement for labelling of inner packages. See comments on Reg6 + 8 regarding additional security requirements

Table 4
Comparison of PEC with ADR 2001

UK Regulation	Reg. No	Sub No	Summary	ADR Ref	Section/Details	Comments	Notes
PEC	1		Title & commencement				
PEC	2		Interpretation & definitions				
PEC	2	1	Net mass definition	1.2.1		Net mass not explicitly defined in ADR, but "Maximum net mass" aligns with PEC (although self referencing definition)	ADR defines "maximum net mass" as maximum net mass of contents in a single package or maximum combined mass of inner packagings and the contents and therefore is consistent with PEC. However "net mass" itself is not defined. The definition of "net mass" in UK regulations may also be changed under MSER. Note ADR does not require the maximum net mass to form part of the UN mark (? Contrary to UN?) (6.1.3.1) but does require (6.1.3.1 aii) "RID/ADR" to form part of the mark for packages approved for rail A
PEC	2	2	Definition of period of carriage	1.2.1		ADR defines carriage - by implication the period is only during actual transport (i.e. not at loading)	
PEC	2	3	Definition of consignor	1.2.1		Essentially the same	
PEC	2	4	Scope of alteration of packaging types			ADR does not deviate from UN	
PEC	2	5	Unit load to be treated as single package			ADR is not so tortuous	
PEC	2	6	Regulatory disclaimer!			ADR is not so tortuous	
PEC	3	1a	Disapplication to nuclear devices			ADR does not apply to military explosives	ADR does not apply to military transport. All transport of nuclear devices in the UK are carried out by or directly under the control of the military
PEC	3	1b	Disapplication for EOD			ADR does not apply to military explosives	ADR does not apply to military transport. MOD/ ESTC have indicated that where possible they will adhere to the requirements of ADR, however in the case of EOD this may not be possible (classification, packaging requirements etc)
PEC	3	1c	Disapplication to articles with substantial outer casings subject to conditions and approval by HSE			ADR general provisions for unpackaged dangerous goods	ADR Ref is 4.1.4.1 PP67 + L1
PEC	3	1d	Disapplication to items in s61 and s74 of EA 1875, or s29 of CPA			CPA refers to retail (ADR does not apply), EA75 to be superseded by MSER	EA75 provisions will be revoked under MSER?
PEC	3	1e	Disapplication to explosives carried by hand			ADR does not apply	
PEC	3	1f	Disapplication to carriage on air or sea			ADR does not apply	
PEC	3	2a	Disapplication of regs 7, 8, 9 and 11 to carriage between private premises and a vehicle in the immediate vicinity			ADR applies to such carriage	Presumably this allows for loading onto vehicles immediately outside an explosive facility boundary where consolidation occurs on the vehicle?
PEC	3	2b	Disapplication of regs 7, 8, 9 and 11 to carriage between private premises			ADR applies to such carriage	This provision is subject to derogation No 8 (see later)
PEC	3	3	Disapplication of regs 7, 8, 9 and 11 for carriage in course of employment and not for sale subject to conditions			ADR does not apply to retailed explosives	ADR does not apply to "private use" (1.1.3.1) but does apply to "at work" activities. ADR has no exempted quantities for explosives (LQ0) except for general provisions (see below)
PEC	3	4a	Disapplication of regs 7, 8, 9 and 11 to materials transhipped from aircraft, hovercraft or vessels	1.1.4.2	Carriage in transport chain	Requires compliance with IMDG code or ICAO instructions	ADR permits transport packages etc that conform to ICAO or IMDG codes to be transhipped. The derogation does not apply to items in ADR that IMDG /ICAO consider as "non-dangerous", presumably this does not apply to any class 1 items
PEC	3	4b	Disapplication of regs 7, 8, 9 and 11 to explosives carried under COTIF	1.1.4.2	Carriage in transport chain	Requires compliance with RID	Presumably if RID and ADR converge this is not an issue, and that CDGRR can make provision for the requirement. See also 1.1.4.5.2

Table 4
Comparison of PEC with ADR 2001

UK Regulation	Reg. No	Sub No	Summary	ADR Ref	Section/Details	Comments	Notes
PEC	3	4c	Disapplication of regs 7, 8, 9 and 11 to explosives carried under ADR				
PEC	3	4d	Disapplication of regs 7, 8, 9 and 11 to explosives of UN 0190 that have not been classified under CLER subject to conditions	DG Table 3.2.1	Transport Category 0, No classification, prohibited from transport		
PEC	3	4e	Disapplication of regs 7, 8, 9 and 11 to explosives for EOD			Redundant	
PEC	3	4f	Disapplication of regs 7, 8, 9 and 11 to explosives listed in part ii of schedule 1 under 50 kg	1.1.3.1a		ADR does not apply to private individuals	For non-work activities ADR does not apply at any quantity (1.1.3.1)
PEC	3	5	Disapplication of regs 7, 8 and 9 to MOD			ADR does not apply to MOD	ADR does not apply to MOD but MOD/ESTC have indicated that they will comply with the requirements of ADR where possible.
PEC	3	6	Disapplication of regs 8, 9 and 11 to explosives for test subject to conditions			ADR applies specific limited quantity provisions.	PEC allows transport of small quantities for test provided the quantity is "no more than is necessary for the purpose". ADR has no limited quantity exemption for class 1 goods, and presumably such samples would need to be carried under "NOS"
PEC	4	1	Explosives must be conveyed packaged	1.4.2.1.1, 1.4.2.2.1 etc	Obligations on main participants	ADR requires explosives to be packaged	ADR requires all participants to ensure items are presented for transport and transported in accordance with its packaging provisions.
PEC	4	2	No one must knowingly carry explosives unless packaged according to PEC	1.4.2.1.1, 1.4.2.2.1 etc			
PEC	4	3	Packagings taken to comply with regs 7, 8 and 9 provided they are packaged in packagings with UN marks and person carrying explosives does not believe this mark or the packagings are false	1.4.2.1.1, 1.4.2.2.1 etc	Obligations on main participants	1.4.2.2.2 allows carrier to rely on information provided	
PEC	4	4	General duty to maintain packagings	1.4.3.1.1	Obligations on other participants (loader)	1.4.3.1.2 allows loader to rely on information provided	
PEC	5	1	Packaging construction	6.1.1 et seq.	Requirement for packagings to comply with UN	PEC applies even to non-UN packagings. No general provision in ADR, except via retail.	
PEC	5	2	Packaging construction disclaimer				
PEC	6		Materials for packaging must be suitable	Chapter 6			
PEC	7		Packages under 400 kg packed according to UN Recommendations	Chapter 6	ADR conforms to UN methods		
PEC	8		Packages under 400 kg must be certified		ADR conforms to UN methods	No explicit requirement	
PEC	9		Packages under 400 kg must be marked with UN mark	6.1.3	Marking.	ADR requires 2 marks for packages >30 Kg gross	
PEC	10		Use of marks on packaging	6.1.3	Marking.	ADR requires 2 marks for packages >30 Kg gross	
PEC	11	1	Packaging of explosives over 400 kg special provisions	6.6	ADR defines packages over 400 Kg (or 450l) as "Large packages"		
PEC	11	2	Reg. 11 does not apply to explosives packaged before 1st September 1992 and subject to certificate	1.6.1.4	Transitional arrangements for packages packed between 1990 and 1996		
PEC	12		HSE is enforcing authority			HSE or DETR?	See note for CLER 13

Table 4
Comparison of PEC with ADR 2001

UK Regulation	Reg. No	Sub No	Summary	ADR Ref	Section/Details	Comments	Notes
PEC	13		HSE may grant exemptions subject to conditions			No provisions for UK specific exemptions by HSE - would need special agreement?	HSE/DETR presumably lose the right to make unilateral UK specific exemptions except under the provisions of 1.5.1 etc. Competent authorities may, however, vary the specific requirements of ADR where technological and other advances have been made (eg 6.7.1.2). The CA may impose other conditions on transport (1.9.1 etc seq) provided that they do not conflict with Article 2 of the directive and are primarily concerned with local custom and practice or emergencies. See note for CLER14
PEC	13	3	SoS for defence may grant exemptions subject to conditions			No provisions for UK specific exemptions by HSE - would need special agreement? MOD application?	ADR does not apply to military transport and presumably CDGRR would require a similar clause even if it were not adopted in practice by MOD?
PEC	14		Repeals and Revocations				
PEC	Schedule 1	Part 1	Exemptions		All explosives have LQ0 limited quantity provisions (= none)	"At work" lower quantity exemptions. ADR 1.1.3.6 does not apply to packaging details	ADR does not apply to "private use" (1.1.3.1) but does apply to "at work" activities. ADR has no limited quantity exemptions for explosives (LQ0) except for general provisions 1.1.3.6
PEC	Schedule 1	Part 2	Exemptions				
PEC	Schedule 2		Marking of packages over 400 kg	6.6	ADR defines packages over 400 Kg (or 450l) as "Large packages"		
PEC	Schedule 3		Revocations				

Table 5
Comparison of CER with ADR 2001

UK Regulation	Reg. No	Sub No	Summary	ADR Ref	Section/Details	Comments	Notes
CER	1		Citation and comment				
CER	2		Interpretation & definitions			Large container not equivalent to "large package"	ADR Ref is 1.2.1 for both definitions.
CER	3	1	Regulations apply to carriage of explosives (by road?)				CER applies to road transport only
CER	3	2	Regs 10 to 28 do not apply to carriage in vehicle for passengers by hire or reward			Not exempt under ADR	ADR does not specifically exempt such transport except under the provisions of 1.1.3.1
CER	3	3a	Regs 15 to 18 disapplied to exempted vehicles			Not exempt under ADR	ADR does not specifically exempt such transport except under the provisions of 1.1.3.1
CER	3	3b	Regs 15 to 18 disapplied to vehicles between private premises subject to conditions			Not exempt under ADR	This provision is subject to derogation No 8 (see later)
CER	3	4a	Regs 17(2), 17(3), 17(4) and 18 disapplied to explosives specified in part I of schedule 1			Not exempt under ADR except for 1.1.3.1 provisions	All explosives in schedule 1 of CER are subject to LQ0 provision under ADR. However in many cases the general exemptions (1.1.3.1) will apply (retail sales of indoor fireworks etc) and limited quantity provisions (1.1.3.6)
CER	3	4b	Regs 17(2), 17(3), 17(4) and 18 disapplied to <=5 kg gunpowder/smokeless powder			Not exempt under ADR except for 1.1.3.1 provisions	Blackpowder is not subject to any LQ provision under ADR. However in many cases the general exemptions (1.1.3.1) will apply (shooters etc)
CER	3	4c	Regs 17(2), 17(3), 17(4) and 18 disapplied to explosives in parts II and III of schedule 1 subject to weight conditions and attendance			Not exempt under ADR except for 1.1.3.1 provisions	All explosives in schedule 1 of CER are subject to LQ0 provision under ADR. However in many cases the general exemptions (1.1.3.1) will apply (transport of display fireworks from private storage to display site etc). MSER/COER may make provision for safe transport under private use conditions?
CER	3	5	Regs do not apply to nuclear devices			ADR does not apply to MOD	ADR does not apply to military transport. All transport of nuclear devices in the UK are carried out by or directly under the control of the military
CER	3	6	Regs do not apply to carriage of UN 2900, 3077, 3082 or 3245 where items are explosive subject to conditions		ADR applies by predominant hazard (Class 6.2 or class 9)		
CER	3	7	Regs do not apply to carriage as a result of an emergency	1.1.3.1	Permits exemption by emergency services		
CER	4		Specified regs do not apply to carriage by armed forces			ADR does not apply to MOD	ADR does not apply to military transport and presumably CDGRR would require a similar clause even if it were not adopted in practice by MOD?
CER	5	1	Regs 7 to 21, 23 to 26 and 28 do not apply to provisions of ADR for non-K vehicles, or for international transport			CDGR adopts ADR	'non-K'
CER	5	2	Regs 7 to 21, 23 to 26 and 28 shall be sufficiently met by adopting international provisions	1.1.4.2	Carriage in transport chain	Requires compliance with IMDG code or ICAO instructions	ADR permits transport packages etc that conform to ICAO or IMDG codes to be transhipped. The derogation does not apply to items in ADR that IMDG /ICAO consider as "non-dangerous", presumably this does not apply to any class 1 items
CER	5	3	International provisions are RID IMDG or ICAO instructions	1.1.4.2	Carriage in transport chain	Requires compliance with IMDG code or ICAO instructions	ADR permits transport packages etc that conform to ICAO or IMDG codes to be transhipped. The derogation does not apply to items in ADR that IMDG /ICAO consider as "non-dangerous", presumably this does not apply to any class 1 items

Table 5
Comparison of CER with ADR 2001

UK Regulation	Reg. No	Sub No	Summary	ADR Ref	Section/Details	Comments	Notes
CER	6	1	Definitions of operators of vehicles	1.4.1	Defines and details duties of all participants		ADR 1.4.1 only covers the main participants - doesn't include drivers here because their duties are covered elsewhere
CER	6	2	Exclusions of operators	1.4.1	Defines and details duties of all participants		
CER	7	1	No carriage of compatibility group K	DG Table 3.2.1	Transport Category 0, No classification, prohibited from transport		
CER	7	2	No carriage of UN 0190 or unclassified explosives except according to limited conditions	DG Table 3.2.1	Transport Category 0, No classification, prohibited from transport		ADR Ref 3.3 SP 16. ADR does allow carriage of up to 10 Kg as specified by the competent authority
CER	7	3	No carriage of compatibility group L except in vehicles of sole use	DG Table 3.2.1	Permitted for transport with provisions		ADR Ref 7.5.2.2 note d for conditions and 7.5.11 CV4
CER	8		No carriage in vehicles carrying passengers for hire or reward except under limited circumstances			Not exempt under ADR	No exemption except under 1.1.3.1
CER	9		No carriage of bulk explosive substances		ADR prohibits carriage in bulk		ADR Ref DG Table 3.2.1 Col (17)
CER	10	1	Vehicles must be suitable for safety and security of explosives carried	9.1 et seq.	No Type 1 vehicles etc		
CER	10	2	Vehicles constructed after 1/1/1997 and all containers must comply with requirements of schedule 2	9.1 et seq	ADR vehicle requirements	Presumably this falls in 2003?	This provision must remain unless it is determined that this allowance will fall in/around 2003 when such vehicles would be expected to have ceased to be operating. The requirements of Schedule 2 are current ADR requirements 1(a) - 8.1.1; 1(b) - 7.2.2; 2(a) - 7.2.3; 2(b) - 7.1.5; 3-7.2 V3;4-9.3.1
CER	11	1	Publication of approved requirements for vehicles by HSE	9.1 et seq	ADR vehicle requirements		
CER	11	2	HSC may publish revisions to document and consult			Presumably follows changes in ADR	Presumably when CDGRR is in place this requirement is redundant? All revisions would be done via ADR or special agreements?
CER	12		Types of vehicles	9.1 et seq	ADR vehicle requirements		
CER	13	1a	Limitations on quantities carried for vehicles constructed on/after 1/1/1997 subject to Part 1 of schedule 3			Presumably this falls in 2003?	UK to apply for a new derogation allowing 50Kg and 500Kg thresholds for Transport Categories 1 and 2 respectively. If successful this should broadly meet industry's needs
CER	13	1b	Limitations on quantities carried for vehicles constructed before 1/1/1997 subject to Part 1 of schedule 3			Presumably this falls in 2003?	HSE have indicated that separate limits for pre-97 vehicles will not be retained, however UK will apply for a new permanent derogation to allow carriage of 5,000Kg of 1.1C/D/E/J on Type/II vehicles (to replace Derogation 90). If this and the previous derogation - see 13(1)(a) - are successful this should broadly meet industry's needs.
CER	13	2	Allowance for vehicles constructed on/after 1/1/1997			Presumably this falls in 2003?	This provision must remain unless it is determined that this allowance will fall in/around 2003 when such vehicles would be expected to have ceased to be operating.
CER	13	3	Must not carry a larger quantity of explosives than defined in regulation 10	7.5.5.2.1	Maximum quantities per transport unit		ADR defines maximum quantities per transport unit
CER	13	4	Requirements for containers and trailers	9.1 et seq	ADR vehicle requirements		

Table 5
Comparison of CER with ADR 2001

UK Regulation	Reg. No	Sub No	Summary	ADR Ref	Section/Details	Comments	Notes
CER	14	1	Restriction of mixed loads according to compatibility group	7.5 et seq	Mixed loads requirements		There are differences in the mixing rules for Class 1 with Class 1 and Class 1 with other dangerous goods. UK to request a new permanent derogation (to replace derogations 91+92) to allow the competent authority to vary the mixing rules. This was particularly important to Orica and Exchem for carriage of AN UN 1942 with Class 1
CER	14	2	Restriction of mixed loads according to compatibility group	7.5 et seq	Mixed loads requirements		As Above
CER	14	3	Carriage of explosives with other dangerous goods according to para 7 of schedule 4	7.5 et seq	Mixed loads requirements		As Above
CER	15	1	Operator of vehicle to ensure vehicle is marked according to Part 1 of schedule 5 (with conditions)	5.3.1	Marking of vehicles		1.1.3.6 general exemptions apply (see below)
CER	15	2	Driver/attendant duties for marking load	5.3.1	Marking of vehicles		
CER	15	3	Marking for mixed compatibility groups	7.5 et seq	Mixed loads requirements		
CER	15	4	Marking for different hazard divisions	7.5 et seq	Mixed loads requirements		
CER	15	5	Vehicles not carrying explosives should not be marked	5.3.2.1.8			ADR 5.3.1.1.5 and 5.3.2.1.8 specifically require placards and orange plates respectively to be removed/covered when dangerous goods and no longer on the vehicle.
CER	15	6	No confusing information	5.3.2.1.8			
CER	15	7	No person to remove or falsify markings			ADR requires that the vehicle is marked. No explicit clause about removal	ADR requires vehicles to be marked. There is no explicit clause about removing or falsifying information except as provided under the safety obligations on participants (1.4.1 et seq)
CER	16		Information to be provided by consignor of explosives shall comply with part 1 of schedule 6 (with exceptions)	5.4 et seq	Documentation		
CER	16	3	No consignor to provide false or misleading information			No explicit requirement	The safety obligations on participants requires information to be given accurately.
CER	17	1	Transport documentation to be provided	1.4.2.1.1, 5.3	Duties of participants		
CER	17	2	Operator to be in possession of transport documentation	1.4.2.1.1, 5.3	Duties of participants		
CER	17	3	Transport documentation must not be false or misleading	5.3 et seq, 5.4.3.5, 8.1.2.4	Information to be provided + requirement not to display false information		
CER	17	4	Operator to keep transport documentation for at least 3 months			No explicit requirement	
CER	18	1	Driver and attendant must keep transport documentation and produce it on request			No explicit requirement	
CER	18	2	Documentation provisions for trailers		ADR treats trailers as vehicles	Information would be required for separated trailer	
CER	18	3	Removal of non-relevant information	5.3.4.6	Non-relevant information to be kept separate	Not required to remove but instead kept separate	ADR requires obsolete information to be kept separate (5.4.3.5) but not removed or placed in a securely closed container. Also ADR Ref 8.1.2.4
CER	18	4	Removal of information permitted for production on request			No explicit requirement	
CER	19	1	General duty re loading, stowage, unloading and cleaning	7.5.7.1	General duty to secure		
CER	19	2	Operator, driver ad attendant to ensure provisions of schedule 7 are complied with	1.4.2.1.1, 5.3	Duties of participants		

Table 5
Comparison of CER with ADR 2001

UK Regulation	Reg. No	Sub No	Summary	ADR Ref	Section/Details	Comments	Notes
CER	19	3	No carriage of food except where separated and protected from			No explicit requirement in section 8.3	ADR Ref 7.5.4 separation/protection of foodstuff
CER	19	4	No opening of packages except by authorisation by operator	8.3.3	Prohibition on opening packages		UK to apply for a new permanent derogation to replace Derogation 83
CER	20	1	Provision of attendant during transport or when parked	8.4	Supervision of vehicles (also S1)	Requirements differ (S1>50Kg etc)	Explosives in vehicles may be left unsupervised if the quantity does not exceed the quantities specified in S1 or due to 1.1.3.6 (see below). ADR does not require the "attendant" to have the same level of training as the driver. Proposal to WP.15 to remove from ADR so allowing Competent Authority to set their own security requirements where necessary. This would replace derogation 89
CER	20	2	Reg 20 (1) disapplications for specific explosives	8.4	Supervision of vehicles (also S1)	Requirements differ (S1>50Kg etc)	The general minimum level for this exemption is 50 kg whereas in CER it may be as low as 20 kg (but see 1.1.3.6 general below) exemptions
CER	20	3	Reg 20 (1) disapplications for specific explosives where adequate security measures have been taken	8.4	Supervision of vehicles (also S1)	Requirements differ (S1>50Kg etc)	The general minimum level for this exemption is 50 kg whereas in CER it may be as low as 20 kg (but see 1.1.3.6 general below) exemptions. This exemption may also be subject to derogation 8 (see later)
CER	20	4	Disapplication of attendant during parking for certain explosives	8.4	Supervision of vehicles (also S1)	Requirements differ (S1>50Kg etc)	There are no specific exemptions for these explosives except under 1.1.3.6 (see below) which applies unlimited quantity exemption to 1.4S items
CER	20	5	Definition of "safe and secure place"				
CER	20	6	No transporting of "extranumery" persons	8.3.1	Prohibition on passengers		
CER	21	1	Route planning for >5te of 1.1 explosives			No explicit requirement	Permitted under ADR 1.9.3
CER	21	2	50m between vehicles in convoy	8.5 (S1)	Requirement continues		Proposal to WP.15 to amend ADR - adding the words 'where practicable'. This would replace derogation 94.
CER	21	3	Driver must apply parking brake when parked	8.3.7			
CER	21	4	50m from vehicle to other vehicles during unloading (with exceptions in para 15 of schedule 5)	8.5 (S1)	Requirement continues		Proposal to WP.15 to amend ADR - adding the words 'where practicable'. This would replace derogation 94.
CER	22		General duty to ensure safe and secure carriage including prevention of unauthorised access				General safety obligations (1.3) replace UK general requirements?
CER	22A		Training to be provided to employees, records to be kept for 5 years	8.2.1, 8.5 (S1)	Training for class 1		
CER	23	1	No smoking or naked lights	8.3.5 and 8.5 (S1)	No smoking or naked lights		
CER	23	2	No portable lighting equipment with metal surfaces liable to produce sparks	8.3.4	Prohibition on portable lighting equipment		
CER	24	1	Vehicle must be equipped for emergency	8.1	General provisions	Scotch, warning signs etc needed	ADR details equipment needed including items not specified in CER (eg scotches)
CER	24	2	Reg 24 (1) does not apply to detached trailers		ADR treats trailers as vehicles		
CER	25	1	General duty to prevent fire and explosion	8.1	General provisions	But not as in CER	General safety obligations replace UK general requirements?
CER	25	2	Specific duties to prevent fire and	8.1	General provisions		

Table 5
Comparison of CER with ADR 2001

UK Regulation	Reg. No	Sub No	Summary	ADR Ref	Section/Details	Comments	Notes
CER	25	3	Paras 1(b), 2 and 3 of schedule 8 do not apply to certain explosives		Limited quantity provisions		Vehicles for transport of explosives must be suitably equipped. ADR does not make provision for limited quantity exemptions for specified explosives in respect of vehicle requirements etc except via 1.1.3.6 (see below)
CER	26	1	General duties in event of emergency				
CER	26	2	Duty to inform HSE			Via DGSA?	ADR 1.8.1 is not relevant. The duty is placed on the operator. He may arrange for this DGSA to do this on his behalf, but he remains responsible for ensuring it is reported. DGSA's are responsible for working within the undertaking, they have no direct responsibility to report matters to the competent authority
CER	26	3	General duty to protect persons likely to be affected and the security of the explosives	1.4.2.2.4	General duties on participants		
CER	26	4	General duty to comply with provided emergency information	1.4.2.2.4	General duties on participants		
CER	27	1	General duties on duration of carriage and delivery	1.4.2.2.4	General duties on participants		General safety obligations (1.3) replace UK general requirements?
CER	27	2	General duty to unload as soon as			No explicit requirement	
CER	27	3	Definitions of harbour and parking areas etc.			Not relevant to ADR	
CER	27	4	Operator not to remove explosives unless ready for dispatch	1.4.2.2.4, 7.5.1	General duties on participants and requirements for loading etc		General safety obligations (1.3) replace UK general requirements?
CER	28	1	Minimum age of 18 for driver, attendant and person responsible for security etc.			No explicit requirement for non-driver	HSE do not intend to retain age limits as the Young Workers Directive* now provides sufficient protection for people under the age of 18. *Implemented in GB in the Management of Health and Safety at Work Regulations
CER	28	2	Disapplication of reg 28 (1) for certain explosives			No explicit requirement	The majority of these cases may fall under general exemptions (1.1.3.1)
CER	29	1	HSE power to grant exemptions			No provisions for UK specific exemptions by HSE - would need special agreement?	HSE remain the sole enforcing authority but presumably lose the right to make unilateral UK specific exemptions except under the provisions of 1.5.1 etc. Competent authorities may, however, vary the specific requirements of ADR where technological and other advances have been made (eg 6.7.1.2). The CA may impose other conditions on transport (1.9.1 et seq) provided that they do not conflict with Article 2 of the directive and are primarily concerned with local custom and practice or emergencies.
CER	29	2	Conditions for exemptions			No provisions for UK specific exemptions by HSE - would need special agreement?	
CER	29	3	SoS for Defence power to grant exemptions			No provisions for UK specific exemptions by HSE - would need special agreement?	
CER	30		Enforcing authority is HSE			No explicit requirement. Subject to VI provisions etc	HSE will continue to be the sole enforcing authority. The Vehicle Inspectorate (and possible the police) will have powers to enforce on behalf of HSE, certain aspects of the new regulations under an agency agreement. The Agency agreement will be with VI not DETR

Table 5
Comparison of CER with ADR 2001

UK Regulation	Reg. No	Sub No	Summary	ADR Ref	Section/Details	Comments	Notes
CER	31	1	Defence providing offence was another person and all reasonable precautions were taken			No explicit requirement	
CER	31	2	Requirements for prosecution			No explicit requirement	
CER	31	3	Guilt of other persons			No explicit requirement	
CER	32		Transitional provisions			Presumably not relevant, but will be addressed by CDGRR	
CER	33		Amendments			Presumably not relevant, but will be addressed by CDGRR	
CER	34		Revocation of the 1989 regs			Presumably not relevant, but will be addressed by CDGRR	
CER	Schedule 1		Exemptions by UN No				All explosives in schedule 1 of CER are subject to LQ0 provision under ADR. However in many cases the general exemptions (1.1.3.1) will apply (retail sales of indoor fireworks etc) or exemptions by transport category (1.1.3.6) (see below)
CER	Schedule 2		Suitability of vehicles and containers	9.1.1 et seq	General and specific provisions for approval of vehicles		ADR details requirements for vehicles. See note for CER 10(2)
CER	Schedule 3		Limits on quantities to be carried	7.5.5.2	Mixed loads		See notes for CER 13
CER	Schedule 3	3	No limitation on 1.4S for reg 13 (1)(a) and 13 (1)(b)	7.5.5.2	Table of allowable quantities	Remains unlimited	Remains unlimited (7.5.5.2)
CER	Schedule 3	4	Special provisions for carriage of UN 0336	7.5.5.2	Table of allowable quantities		
CER	Schedule 3	5	No carriage of compatibility group A except in Type 3 vehicles subject to conditions	7.5.5.2	Table of allowable quantities - quantity reduced and transport permitted in Type II vehicles		These quantities are subject to the general provisions of 7.5.5.2.1 and permits transport in Type II and Type III vehicles
CER	Schedule 3	6	UN 1942 to be treated as 1.1D for reg 13	7.5.2	Mixed loads not permitted		7.5.5.1 does not permit carriage of UN1942 with class 1 goods (except 1.4S)
CER	Schedule 3	7	Containers on multimodal journeys			?Subject to ongoing special agreement	
CER	Schedule 3	Part II	Limits for vehicles by type and HD	7.5.5.2	Table of allowable quantities	No Type I vehicles	
CER	Schedule 3	Part III	Maximum limits for types of explosive	7.5.5.2	Table of allowable quantities		
CER	Schedule 4		Mixed loads	7.5.2.2 et seq	Table of Mixed loads		See notes for CER 14
CER	Schedule 4	1	Mixed loads with CG "N" treated as CG "D"	7.5.2.2 et seq	Table of Mixed loads		
CER	Schedule 4	2	Priority of CGs	5.3.1.1.2, 7.5.2.2	List of priorities and table of allowed mixed loads		See table 7.5.2.2 for special cases of mixed loads and are in line with CER schedule 4. See also 1.1.3.6 exemptions below.
CER	Schedule 4	3	Priority of HDs	5.3.1.1.2	List of priorities		
CER	Schedule 4	4	HD 1.5D with 1.2 shall be deemed to be HD 1.1	5.3.1.1.2, 7.5.2.2	List of priorities and table of allowed mixed loads		
CER	Schedule 4	5	HD 1.6N and other articles shall be deemed to be HD 1.1	5.3.1.1.2, 7.5.2.2	List of priorities and table of allowed mixed loads		
CER	Schedule 4	6	Permitted mixtures of compatibility groups	7.5.2.2 et seq	Table of Mixed loads	ADR does not allow certain mixed loads	ADR does not permit the carriage of compatibility group B fuses with compatibility groups D, E or F whereas CER does
CER	Schedule 4	7	Carriage of specified explosives with other dangerous goods	7.5.2	Mixed loads generally allowed only with compatibility group "S" or UN 2990, 3072		
CER	Schedule 5		Information to be displayed on vehicles and containers	5.3.2	Marking of vehicles		See note for CER 13. If new 50/500Kg thresholds for TC 1+2 are agreed they will apply to placarding thresholds too.
CER	Schedule 5	3	No requirement for duplication of danger signs	5.3.1, 5.3.2	Marking of vehicles		
CER	Schedule 5	4-14	Form of panels and danger symbols	5.3.2 et seq	Marking of vehicles, form of labels		

Table 5
Comparison of CER with ADR 2001

UK Regulation	Reg. No	Sub No	Summary	ADR Ref	Section/Details	Comments	Notes
CER	Schedule 5	15-17	Exemptions depending on quantity			No lower quantity exemption (LQ0)	No general exemptions for quantity re labelling etc
CER	Schedule 5	18	Exemptions during loading and unloading	7.5.1	Duties during loading/unloading	No specific exemption	
CER	Schedule 5	19	Exemptions for detached trailers		ADR treats trailers as vehicles		
CER	Schedule 6		Information to be provided and carried	5.4.0 et seq	Documentation		ADR details documentation requirements separately (5.4.0 et seq)
CER	Schedule 7		Loading, stowage,unloading and cleaning of vehicles and containers	7.5.1, CV1, CV2, CV3 etc	Duties during loading/unloading		
CER	Schedule 8		Precautions against fire and explosion	8.1.4.1	General requirements for onboard equipment etc		
CER	Schedule 9		Amendments to CLER				

Table 6
Comparison of TDGSA with ADR 2001

UK Regulation	Reg. No	Sub No	Summary	ADR Ref	Section/Details	Comments	Notes
TDGSA	1		Citation and Commencement				
TDGSA	2		Interpretations and definitions				
TDGSA	3		Application - self employed as well as employed. Scope extends to road, rail and inland waterway				
TDGSA	4	1	No employer shall transport dangerous goods without appointing DGSA	1.8.3.1 et seq	Support measures - Safety Advisor		ADR requires support measures to be in place (1.8.3.1)
TDGSA	4	2	Self employed may appoint self	1.8.3.1 et seq	Support measures - Safety Advisor	Self employed are "undertaking"	
TDGSA	4	3	Co-operation between DGSA's				
TDGSA	4	4	Sufficient DGSA's to cover duties			Not explicit in ADR	
TDGSA	4	5	All means at DGSA's disposal			Not explicit in ADR	
TDGSA	4	6	Provision of adequate information and facilities			Not explicit in ADR	
TDGSA	4	7	Partnerships			Not explicit in ADR	
TDGSA	5	1	Duties listed in schedule 2	1.8.3.3	Main tasks of advisor		
TDGSA	5	2	Reports on accidents	1.8.3.6	Accident reporting		
TDGSA	5	3	Copy of accident report to employer			Not explicit in ADR	
TDGSA	6		Reports to be kept for 5 years			Not explicit in ADR	
TDGSA	7	1	Need for valid certificate	1.8.3.7	Certificate		
TDGSA	7	2	Need for training and passing of exam	1.3.8.8	Exam/Training		
TDGSA	7	3	Form of certificate	1.8.3.18			
TDGSA	7	4	Certificate valid for 5 years	1.8.3.16	5 years		
TDGSA	7	5	Extension of certificates		No provision for extension in ADR		
TDGSA	7	6	Outline of training	1.8.3.11	Subjects		
TDGSA	7	7	Scope of exam (schedule 4)	1.8.3.12	Scope of exam	Does not align with TDGSA completely	ADR requirements do not equate exactly with schedule 4 of TDGSA but are equivalent
TDGSA	7	8	Mode and classes	1.8.3.13	Specialisations		
TDGSA	7	9	Indication of modes/classes on certificate	1.8.3.13	Specialisations		
TDGSA	7	10	Duties limited to those allowed by certificate (with exceptions)	1.8.3.13	Specialisations		
TDGSA	8		Mutual recognition			ADR implies mutual recognition	ADR implies mutual recognition across EU states
TDGSA	9		Information to be provided to SoS or goods vehicle examiner	1.8.3.5	Information		
TDGSA	10	1	Exemptions may be granted by HSE			No provisions for UK specific exemptions by HSE - would need special agreement?	HSE/DETR presumably lose the right to make unilateral UK specific exemptions except under the provisions of 1.5.1 etc. Competent authorities may, however, vary the specific requirements of ADR where technological and other advances have been made (eg 6.7.1.2). The CA may impose other conditions on transport (1.9.1 etc seq) provided that they do not conflict with Article 2 of the directive and are primarily concerned with local custom and practice or emergencies and are not relevant to provision of safety
TDGSA	10	2	Conditions of exemption			No provisions for UK specific exemptions by HSE - would need special agreement?	
TDGSA	10	3	MOD granting of exemptions			ADR does not apply to MOD	
TDGSA	11		Amendments to CDGCPL			Not relevant to explosives	
TDGSA	12		Amendments to CDG Road			Not relevant to explosives	
TDGSA	13		Amendment to CER II				

Table 6
Comparison of TDGSA with ADR 2001

UK Regulation	Reg. No	Sub No	Summary	ADR Ref	Section/Details	Comments	Notes
TDGSA	14		Amendment to HS (Fees) Regs 1997			Not part of ADR	
TDGSA	Schedule 1	1a	Disapplication to dangerous goods in machines	1.1.3.1a	General exemptions		
TDGSA	Schedule 1	1b	Disapplication to damaged vehicles		No similar requirement		
TDGSA	Schedule 1	1c	D/a to luminous devices		No similar requirement		
TDGSA	Schedule 1	1d	D/a to smoke detectors	1.1.3.1a	General exemptions		
TDGSA	Schedule 1	1	D/a to tritium light devices	1.1.3.1a	General exemptions		
TDGSA	Schedule 1	1f	D/a to transport on/between private premises				This provision is subject to derogation No 8 (see later)
TDGSA	Schedule 1	1g	D/a to road construction/repair vehicles	1.1.3.1a	General exemptions		
TDGSA	Schedule 1	1h	D/a to live animals	1.1.3.1a	General exemptions		
TDGSA	Schedule 1	1i	D/a to radioisotopes contained in people	1.1.3.1a	General exemptions		
TDGSA	Schedule 1	1j	D/a to agricultural vehicles	1.1.3.1a	General exemptions		
TDGSA	Schedule 1	1k	D/a to nominally empty tankers	1.1.3.1a	General exemptions		
TDGSA	Schedule 1	1l	D/a to exempted vehicles for explosives	1.1.3.1a	General exemptions		
TDGSA	Schedule 1	1m	D/a to radioactive materials for war	1.1.3.1a	General exemptions		
TDGSA	Schedule 1	1n	D/a to certain substances for agricultural use	1.1.3.1a	General exemptions		
TDGSA	Schedule 1	1o	D/a to emergencies	1.1.3.1a	General exemptions		
TDGSA	Schedule 1	2a	Reg 4 does not apply to certain CER listed explosives		No similar requirement		Thresholds currently in line with CER not ADR. See notes for CER 13. If new 50/500 Kg thresholds for TC 1 + 2 are agreed they will apply to DGSA thresholds too
TDGSA	Schedule 1	2b	Reg 4 does not apply to excepted		No similar requirement		
TDGSA	Schedule 1	2c	Reg 4 does not apply to small quantities	1.8.3.1	No small quantity provision for explosives	but see 1.1.3, 2.2.7.1.2 and 3.3, 3.4	
TDGSA	Schedule 1	3	Reg 4 does not apply to unloaders of	1.8.3.1	ADR applies to unloading		
TDGSA	Schedule 1	4	Reg 4 does not apply to occasional users and those whose primary or secondary role is not transport of dangerous goods	1.1.3.1a	General exemptions	Not complete	
TDGSA	Schedule 2		Functions of DGSA's	1.8.3.3	Main tasks of advisor	Not explicit as in DGSA	
TDGSA	Schedule 3		Form of certificate	1.8.3.18	Form of certificate		
TDGSA	Schedule 4		Subjects to be covered in exam	1.8.3.11	Subjects in exam		ADR details subjects to be examined but not in same form
TDGSA	Schedule 5		Amendments to Fees Regs			Not relevant	

Table 7
Comparison of CDG(DT) with ADR 2001

UK Regulation	Reg. No	Sub No	Summary	ADR Ref	Section/Details	Comments	Notes
CDG(DT)	1		Citation and comment				
CDG(DT)	2		Application				
CDG(DT)	2	1	Regs apply to explosives except as specified in schedule 1 or Part 1 off schedule 2	1.1.3.1a + 1.1.3.6	General exemptions		Presumably under CDGRR ADR drivers certificates will be in place (with possible transitional arrangements)
CDG(DT)	2	6	Transport categories	1.1.3.6.3	Transport Categories		
CDG(DT)	3	1	Information and training for drivers	8.2.1 et seq	General and specific requirements for training of drivers		
CDG(DT)	3	2	Operators to keep record of training			Not explicit in ADR	
CDG(DT)	4	1	Driver to hold vocational training certificate			Replaced by ADR training requirement	
CDG(DT)	4	4	VTC to be in prescribed form	8.2.2.8.3	Form of certificate		
CDG(DT)	4	5	Training to be theoretical and practical	8.2.2.4.5	Practical requirement		
CDG(DT)	4	6	VTC valid for 5 years	8.2.1.5	5 Years		
CDG(DT)	4	7	Fees			Not relevant	
CDG(DT)	4	8	ADR certificate is deemed to be VTC			ADR certificates will be in place	See general exemptions (1.1.3.6) below
CDG(DT)	5		Existing training certificates			ADR certificates will be in place	
CDG(DT)	6		Certificates to be available during carriage	8.1.2.2	Documents to be carried		
CDG(DT)	7		Certificates to be produced			Not explicit in ADR	
CDG(DT)	8		Enforcement				
CDG(DT)	9		Exemption certificates			No provisions for UK specific exemptions by HSE - would need special agreement?	See note for CLER 14
CDG(DT)	10		Defence			Not explicit in ADR	
CDG(DT)	11		Transitional defence				
CDG(DT)	12		Amendments			Not relevant	
CDG(DT)	13		Revocations			Not relevant	
CDG(DT)	Schedule 1		Cases where CDG(DT) does not apply	1.1.3.1a	General exemptions		
CDG(DT)	Schedule 2	Part 1	Exemptions			No provisions for UK specific exemptions by HSE - would need special agreement?	If new 50/500Kg thresholds for TC1 + 2 are agreed they will apply to DT thresholds too
CDG(DT)	Schedule 2	Part 2	Exemptions for explosives			No provisions for UK specific exemptions by HSE - would need special agreement?	
CDG(DT)	Schedule 3		Minimum training requirements	8.2.2.3	Minimum training requirements		
CDG(DT)	Schedule 4		Fees for applications for approvals			Not relevant	

6. NOTES AND EXPLANATIONS

6.1 GENERAL EXEMPTIONS UNDER ADR 1.1.3.6

1.1.3.6 permits disapplication of certain provisions dependent on the quantity being carried on a transport unit dependent on the transport category of the items.

Table 9
Exemptions/Transport Categories

Transport Category	Examples	Exempt transport quantity (taken as kg for explosives)
1	UN HD 1.1B to 1.1J UN HD 1.2B to 1.2J UN 1.3C UN 1.3G UN 1.3H UN 1.3J UN 1.5D	20 kg (for UN Nos. 0081, 0082, 0084, 0241, 0331, 0332, 0482 the quantity is 50Kg)
2	UN HD 1.4B to 1.4G UN 1.6N	333 kg
4	UN HD 1.4S	unlimited

The following general exemptions apply to all ADR journeys of explosives

Table 10
General Exemptions

ADR Section	Summary	Comments
Chapter 1.3	Training provisions	
Chapter 5.3	Placarding of vehicles, containers etc	
Section 5.4.3	Instructions in writing given to driver	Note that the remainder of 5.4 applies
Chapter 7.2 (except for 7.2.3 and V8 of 7.2.4)	Provisions concerning carriage in packages	V5 means packages may not be carried in small containers V7 means that adequate ventilation must be provided V8 (not relevant to Class 1)
CV1 of 7.5.11	Special provisions for class 1	Unloading/loading may be carried out without special permission from competent authorities (CV1 (1)a)

ADR Section	Summary	Comments
Part 8 except for 8.1.2.1 (a) and (c) 8.1.4.1 (a) 8.3.4 Chapter 8.4 S1 (3) and (6) S2 (1) S4	Part 8 of ADR is concerned with requirements for crews, equipment, operation and documentation	Loading/unloading may be carried out without prior notice (CV1 (1)b) No separation by hazard is required for unloaded goods (CV1 (2)) 8.1.2.1 (a) requires transport documents described in 5.4.1 to be carried 8.1.2.1.(c) requires a copy of the main text of any relevant special agreement to be carried 8.1.4.1 (a) requires at least one portable fire extinguisher 8.3.4 requires that no portable lighting equipment is carried 8.4 requires the vehicle to be supervised if quantities/types require it S1 (3) prohibits use of naked flame on vehicles S1 (6) requires supervision of vehicles only when >50 kg class 1 items are carried and requires means to be taken to prevent malicious acts S2 (1) - not relevant to class 1 S2 (3) requires precautions to be taken against electrostatic discharges S4 - not relevant to class 1 S14 to S21 gives exemptions for certain dangerous goods above 100 kg (not relevant here)
Part 9	Construction and approval of vehicles	Allows transport in any vehicle for exempt quantities

6.2 COMPARISON OF EXEMPTED QUANTITIES

Table 11 - Comparison of exempted quantities

		ADR		CER2 thresholds	
		1.1.3.6.3 limit	Type I Vehicle		Placard
			CER2 Sch 3	CER2 ACoP	CER2 Sch 5
Transport Category 0	1.1A	0	0	0	50
	1.1L	0	50	50	50
	1.2L	0		50	50
	1.3L	0	50	50	50
	1.4L	0	300		50
Transport Category 1	1.1B articles	20	50	10	20
	1.1B substances	20	50	10	50
	1.1C	20	50	50	50
	1.1D: except 0081,0082, 0084 + 0241	20	50	50	50
	1.1D: 0081,0082, 0084 + 0241 only	50	50	50	50
	1.1E.	20	50	50	50
	1.1F	20	50	50	50
	1.1G articles: except 0333	20	50	50	50
	1.1G articles: 0333 only	20	50	50	100*
	1.1G substances	20	50	1	20
	1.1J	20	50	50	50
	1.2B articles	20	50	50	20
	1.2B substances	20	50	50	50
	1.2C: except 0328	20	50	50	50
	1.2C:0328 only	20	50	50	100*
	1.2D	20	50	50	50
	1.2E.	20	50	50	50
	1.2F	20	50	50	50
	1.2G: except 0334	20	50	50	50
	1.2G: 0334 only	20	50	50	100*
	1.2H	20	50	50	50
	1.2J	20	50	50	50
	1.3C: except 0161 and 0327	20	50	50	50
	1.3C: 0161 and 0327 only	20	50	50	100*
	1.3G articles: except 0195 and 0335	20	50	50	50
	1.3G articles: 0195 and 0335 only	20	50	50	100*
	1.3G substances	20	50	50	20
1.3H	20	50	50	50	
1.3J	20	50	50	50	
Transport Category 2	1.4B	333	300	50	300
	1.4C	333	300	50	500
	1.4D	333	300	50	500
	1.4E.	333	300	50	500
	1.4F	333	300	50	500
	1.4G articles	333	300	50	500
	1.4G substances	333	300	50	300
Transport Category 4	1.4S	U	U	U	U

* - GB currently has special provisions for these explosives and even if ADR is amended to adopt a 50kg limit this will mean greater restrictions on these items than at present

U - unlimited

7. RECOMMENDATIONS FOR FURTHER WORK

The impact of the adoption of ADR into GB domestic regulations for the transport of explosives have significant consequences for industry. The consolidation of GB explosives transport regulations into CDGRR permits a rationalisation and simplification of existing law that will be welcomed by most. However, it is likely that some existing provisions which could be removed from the legislative burden by adoption of ADR will instead be subject to amendments to, for instance, the Control of Explosives Regulations.

There is great need for sector specific guidance and in particular extraction of the relevant provisions of ADR for SMEs. HSE have indicated that they will not be producing such guidance directly, as all the detail that is required is within ADR itself (unlike the role of ACoPs to existing regulations). However they will assist the production of sector specific guides.

8. EXISTING ADR ARTICLE 6.10 DEROGATIONS

At present there are a number of Multilateral Special Agreements, UK derogations and proposals to ADR WP15 which will affect the implementation of ADR into domestic legislation. It is intended that these should form schedules to CDGRR. The following table, prepared by HSE, summarises the present GB derogations and submissions relating to the transport of class 1 explosives. Note that the marginal numbers given refer to the ADR 1999 text.

Table 12
Derogations

No. and Subject	Comments
8 Crossing of public roads	A number of Member States currently applied derogations from national provisions where vehicles crossed or travelled on public roads over very short distances. Whilst a 5 year derogation was agreed to, it was felt a change in the Directive at some future date would be appropriate.
12 Transport of dangerous goods to/from ports/airports	Class 1 to 9: Transport of dangerous goods to and from harbours and airports according to the provisions of IMDG-Code or ICAO-TI, for example for classification, transport documentation, packaging and labelling. <i>Marginal 2007 (Para 1.1.4.2) includes classification, packaging and labelling, but not transport documentation. May be OK now UN agreed change, but revisit if UN does a 'U' turn in December 2000</i>
19 Exemption from carrying the transport document where the load is below the 1.1.3.6 threshold	This was granted as a permanent UK derogation under Article 6.9, so all we need to do is notify EC of our intention to keep it.
62? Limited quantities - marginal 10 011	Permission to apply in advance the agreed 1999 ADR requirements in respect of marginal 10 011 for national transport. <i>New Marginal 10 011 limits not yet fully applied to Class 1</i>
65 Limited quantities (vehicle requirements) - marginal 10 011	GB can continue with national practice along the lines of its proposed amendment to ADR marginal 10 011 for up to 5 years. UK have requested permanent derogation to permit 50/500kg thresholds

No. and Subject	Comments
83 Crossing of public roads	A number of Member States currently applied derogations from national provisions where vehicles crossed or travelled on public roads over very short distances. Whilst a 5 year derogation was agreed to, it was felt a change in the Directive at some future date would be appropriate.
85 Explosives vehicles types - marginal 11 204	Derogation from requirement for 3 vehicle types, awaiting outcome of GB/N proposal to WP.15. UK have requested permanent derogation to permit 50/500kg thresholds
89 Marginal <u>11 321</u> , 41 321, 52 321, 62 321, 71 321	Extra supervision against malicious acts; these supervision requirements seemed excessive for certain dangerous goods. Commission could accept that the competent authority was the emergency services for these purposes. a proposal to amend ADR would be appropriate. <i>Paper to WP.15 Nov 2000, but postponed to May 2001</i>
90 Marginal 11 401	Maximum net mass of explosive articles of 1.1C, 1.1D, 1.1E, and 1.1J to be carried in type II vehicles under this marginal to be increased to <u>5,000kg</u> . To allow current national practice to continue, pending the GB proposal to WP.15.
91 Marginal 11 403(1)	Restriction on mixed loads of explosives. A GB proposal to WP.15, meanwhile allowing national practice to continue.
92 Restriction on transporting explosives with other dangerous goods - marginal 11 403(2)	A more flexible approach could nevertheless exclude goods of packing group 1 or those with no packing group, as well as gas cylinders. It could alternatively also only cover PG III. There was agreement to allow a more flexible approach pending a new GB proposal to the WP.15.
93 Exemption from the need for special permission to unload in a public place	Not needed. We will meet this requirement by permitting unloading in a public place only if the driver, or other competent person is present
94 Separation for convoys of vehicles carrying explosives - marginal 11 520	Agreement that the ADR provision was impractical in cases where vehicles reach traffic lights or where as few as 2 vehicles constituted a convoy. The GB proposal to WP.15 for more flexible wording such as "wherever practicable". <i>Paper to WP.15 Nov 2000, but postponed to May 2001</i>

In addition there are two Multilateral Special Agreements (M95 and M99) and related Certificates of Exemption Nos 1 and 2 of 2000. CDGRR will automatically apply MSAs signed by the UK to domestic carriage, however MSAs are time limited (5 years) so the UK delegation will present papers to WP.15 seeking a change to ADR before they expire.

The two exemptions are reproduced below for completeness.

**THE HEALTH AND SAFETY AT WORK ETC ACT 1974
THE CARRIAGE OF EXPLOSIVES BY ROAD REGULATIONS 1996
(S.I. 1996/2093)
CERTIFICATE OF EXEMPTION NO. 1 OF 2000**

1 In pursuance of the power conferred on it by regulation 29(1) of the Carriage of Explosives by Road Regulations 1996 1 ("the Regulations") and being satisfied as required by regulation 29(2) thereof, the Health and Safety Executive ("the Executive") hereby grants the following exemption subject to the conditions in paragraphs 3, 4 and 5.

Exemption

2 In respect of a vehicle which is to be used for the carriage of fireworks allocated on classification the UN Numbers 0335, 0336 or 0337

a) the operator of that vehicle shall be exempted from paragraph (2) of regulation 17 of the Regulations insofar as that paragraph requires the Transport Documentation to include the certificate specified in paragraph 1(g) of Part II of Schedule 6 to the Regulations; and

b) that vehicle shall be exempted from the requirements in paragraphs 12, 21 and 28 of the Approved Requirements for the construction of vehicles intended for the carriage of explosives by road 2 .

Conditions

3 The load which is being carried by the vehicle shall be limited to the combinations and quantities given in the following table

Articles	Load Limit
UN 0335	2,000kg
UN 0335 with UN 0336 and/or UN 0337	2,000kg
UN 0336	6,000kg
UN 0336 with UN 0337	6,000kg
UN 0337	Unlimited

4 The Transport Documentation shall be marked "carriage in accordance with Certificate of Exemption No. 1 of 2000".

5 Any electrical installation in the load-carrying compartment shall be in good condition or electrically isolated.

6 This exemption shall come into force immediately and is granted until 1 October 2004, subject to the power of the Executive to revoke the exemption at any time by a further certificate in writing, pursuant to regulation 29(1) of the Regulations.

Signed:
Richard Clifton

Head of the Transport Safety Division of the Safety Policy Directorate of the Executive who has been duly authorised by the Executive to sign in that behalf.

Date: 14 July 2000

1 S.I. 1996/2093, as amended by S.I. 1999/303.
2 2nd edition, ISBN 0-7176-1680-0.

THE HEALTH AND SAFETY AT WORK ETC ACT 1974
THE CARRIAGE OF EXPLOSIVES BY ROAD REGULATIONS 1996
(S.I. 1996/2093)
CERTIFICATE OF EXEMPTION NO. 2 OF 2000

1 In pursuance of the power conferred on it by regulation 29(1) of the Carriage of Explosives by Road Regulations 1996¹ ("the Regulations") and being satisfied as required by regulation 29(2) thereof, the Health and Safety Executive ("the Executive") hereby grants the following exemption subject to the conditions in paragraphs 3, 4, 5 and 6.

Exemption

2 The operator of an on site mixing vehicle shall be exempted from paragraph (3) of regulation 14 of the Regulations insofar as that paragraph prohibits the carriage of explosives on the same vehicle with other dangerous goods unless such carriage is permitted by paragraph 7 of Schedule 4 of the Regulations.

For the purposes of this exemption all references to vehicles shall mean a vehicle designed for the on site mixing of explosives.

Conditions

3 The load shall consist only of :

- packages containing explosive articles in Class 1 of Compatibility Group B;
- packages containing substances and articles in Class 1 of Compatibility Group D;
- packages containing detonators in Class 1 of Compatibility Group S; and
- dangerous goods in tanks of Classes 3, 5.1 and 8

4 The conditions referred to in paragraph 1 are as follows:

a) Packages containing explosive articles in Class 1 of Compatibility Group B and substances and articles in Class 1 of Compatibility Group D shall be carried in separate containers or compartments of a design approved by the Executive², such that there is:

no danger of transmission of detonation from the articles of compatibility group B to the substances and articles of compatibility group D, and

no increase in the risks associated with the carriage of the dangerous goods in Classes 3, 5.1 and 8 present over and above the risks associated with the carriage of the explosives and dangerous goods separately.

b) The containers or compartments referred to in paragraph (a) shall be used exclusively for the carriage of explosives.

c) All explosives must be classified in accordance with the Classification and Labelling of Explosives Regulations 1983³ and packaged in accordance with the Packaging of Explosives for Carriage Regulations 1991⁴;

d) Only those explosives necessary for the operation of the on-site mixing vehicle may be carried, subject to a maximum quantity of;

explosives of compatibility group D - 100 Kg net mass

explosives of compatibility group B - 200 units, and

detonators of compatibility group S, which shall be carried in the same container or compartment with those of compatibility group B, and the total of both shall not exceed a maximum of 200 units;

e) All due precautions are to be taken to ensure that the interior of any container or compartment used for the carriage of explosives is kept clean and free from exposed explosive. In the event of a spillage or leakage of explosives, the container or compartment is to be thoroughly decontaminated before any further carriage is permitted;

f) Explosives are only to be loaded onto the vehicle once the loading of other dangerous goods has been

g) No explosives are to be present on the vehicle during any mixing, augering or pumping operations; explosives are to be removed to a suitable and safe location, at least 25 metres from the vehicle, prior to commencement of operations;

h) The containers or compartments referred to in paragraph (a) shall be welded or otherwise securely fixed to the body of the vehicle and shall be locked and secured whenever explosives are being carried;

i) The vehicle shall be designed and constructed so as to meet the Type III vehicle requirements specified in the Approved Document *Approved Requirements for the construction of vehicles intended for the carriage of explosives by road*⁵. Where explosives are to be carried exclusively on a trailer, the requirements for the design and construction shall apply to the trailer alone.

j) All other requirements of the Regulations shall be complied with.

For the purposes of this exemption, the term 'units' referred to in paragraph (c) shall mean the number of detonators or non-electric detonator assemblies.

5. The Transport Documentation shall be marked "carriage in accordance with Certificate of Exemption No. 2 of 2000".

6. This exemption shall come into force immediately and is granted until 31 December 2005, subject to the power of the Executive to revoke the exemption at any time by a further certificate in writing, pursuant to regulation 29(1) of the Regulations.

Signed:

Richard Clifton

Head of the Transport Safety Division of the Safety Policy Directorate of the Executive who has been duly authorised by the Executive to sign in that behalf.

Date: 17 October 2000

¹ S.I. 1996/2093, as amended by S.I. 1999/303.

² Applications for approval should be submitted to HM Chief Inspector of Explosives, Merton House, Stanley Road, Bootle, Merseyside, L20 3DL

³ S.I. 1983/1140, as amended by S.I.s 1994/670, 1996/2093 and 1999/303

⁴ S.I. 1991/2097, as amended by S.I.s 1996/2092 and 1999/303

⁵ *Approved Document L92 (second edition): ISBN 0-7176-1679-7*

9. ISSUES OF MAJOR CONCERN

The following issues have been identified in the above tables and notes as areas of major concern.

Table 13
Issues of major concern

Issue	Comment
1 Application to MOD	MOD have indicated that they will comply with the requirements of ADR. However there are a number of areas (eg transport of nuclear devices) which ADR deliberately does not address which will need separate treatment by MOD/ESTC
2 Application to “non-work” activities	ADR does not apply to non-work activities (1.1.3.1). HSE have indicated that they wish to retain the elements of CLER, PEC, CER etc for such activities and presumably these will form part of CDGRR. However, it is possible that such an approach will be challenged as not being for any security grounds.
3 Double-manning provisions	HSE have indicated that they wish to retain the double manning provisions of CER and this has been the subject of much debate. Industry accept that double manning is appropriate for transport of security attractive explosives (those not included in schedule 1 of COER) but not for other explosives. It has been suggested that either CDGRR or legislation brought by the Home Office will require double manning in the GB. There is, however, the question of ADR journeys with a single man originating outside the GB requiring a second man on arrival at GB ports. Such a requirement would be extremely difficult to defend or enforce.
4 Fireworks	UN 0335 (1.3G) fireworks are only subject to exemptions under 1.1.3.6 upto 20 Kg. UN 0336 (1.4G) fireworks are subject to exemptions under 1.1.3.6 upto 333 kg (see below)
5 Small quantity exemptions	ADR has no provision for small quantity exemptions from the majority of requirements except under the general provisions of 1.1.3.6. Small quantities of non-specified explosives (eg items for classification) and special items (eg “one-off” theatrical devices which currently are transported without explicit classification) are not exempt from the requirements of ADR.
6 Type 1 vehicles	ADR makes no provision for carriage of explosives in Type 1 vehicles, indeed ADR does not include Type 1 vehicles at all. This is in part due to the expectation within ADR that all movements of explosives “at work” will be done in dedicated explosives vehicles, whilst “non-work” transport is excluded anyway. The only exemptions for carriage in non Type II/III vehicles is by virtue of 1.1.3.6. There are situations, particularly for organised firework displays where UN 0335

Issue	Comment
	and UN 0336 are presently carried in mixed loads that would not be subject to the 1.1.3.6 exemptions
7 Reductions to exempt quantities	There are significant differences here (50 kg -> 20 kg and 500 kg -> 333 kg) identified in table 11 above which will need examination and possible transitional relief.
8 UN 1942	Although it is now not common practice in the UK to carry 1942 with 0241 it is a provision that we may need to allow for when considering the mixed loading rules under derogations 91 & 92

10. ABBREVIATIONS

CLER	Classification and Labelling of Explosives Regulations 1983
PEC	Packaging of Explosives for Carriage Regulations 1991
CER	Carriage of Explosives by Road Regulations 1996
COER	Control of Explosives Regulations 1991
TDGSA	Transport of Dangerous Goods (Safety Advisers) Regulations 1996
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CDGRR	Carriage of Dangerous Goods by Road and Rail Regulations (2002)
EA75	The Explosives Act 1875
MOD	Ministry of Defence , taken to imply all operations applicable to transport by armed forces as exempt in GB regulations
DGSA	Dangerous Goods Safety Adviser
HSE XI or just XI	Health and Safety Executive (Explosives Inspectorate)
DETR	Department of Environment, Transport and the Regions
SME	Small and Medium Enterprises

11. ACKNOWLEDGEMENTS

The assistance of the following in preparing this report is gratefully acknowledged:-

HSE Transport of Dangerous Goods policy section
Explosive Safety and Transport Committee (ESTC) of MOD
Explosive Industry Group (EIG) of the CBI
Black Cat Fireworks
Orica



MAIL ORDER

HSE priced and free
publications are
available from:
HSE Books
PO Box 1999
Sudbury
Suffolk CO10 2WA
Tel: 01787 881165
Fax: 01787 313995
Website: www.hsebooks.co.uk

RETAIL

HSE priced publications
are available from booksellers

HEALTH AND SAFETY INFORMATION

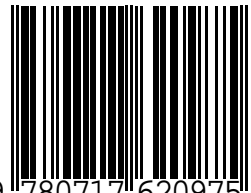
HSE InfoLine
Tel: 08701 545500
Fax: 02920 859260
e-mail: hseinformationservices@natbrit.com
or write to:
HSE Information Services
Caerphilly Business Park
Caerphilly CF83 3GG

HSE website: www.hse.gov.uk

CRR 366

£10.00

ISBN 0-7176-2097-2



9 780717 620975