

Proposals for the Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 200[]

This consultative document is issued by the Health & Safety Commission in compliance with its duty to consult, under Section 50(3) of the Health and Safety at Work etc Act 1974, bodies that appear to it to be appropriate, before submitting proposals for the making of Regulations.

Comments should be sent by [xx] September to:

Transport Safety Policy Division 3
Health & Safety Executive
5 South Wing
2 Southwark Bridge
London SE1 9HS
e-mail: cdgpolicy.spda@hse.gsi.gov.uk
Fax: 020 7717 6670

The Commission tries to make its consultation procedure as thorough and open as possible. Responses to this consultation document will be lodged in the Health & Safety Executive's Information Centres after the close of the consultation period where they can be inspected by members of the public or be copied to them on payment of the appropriate fee to cover costs.

Responses to this consultation document are invited on the basis that anyone submitting them agrees to their being dealt with in this way. Responses, or part of them, will be treated confidentially and, therefore, withheld from the Information Centres referred to in paragraph 12 only at your express request (under for example the Code of Practice on Access to Government Information; Environmental Information Regulations 1992 or the Data Protection Act 1998). In such cases a note will be put in the index to the responses identifying those who have commented and have asked that their views, or part of them, be treated as confidential.

Many business e-mail systems now automatically append a paragraph stating the message is confidential. If you are responding to this consultative document by e-mail and you are content for your response to be made publicly available, please make clear in the body of your response that you do not wish any standard confidentiality statement to apply.

CONSULTATION DOCUMENT

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INTRODUCTION

Background

1. This Consultation Document (CD) sets out regulatory proposals to implement European Directives relating to the carriage of dangerous goods, namely:
 - (i) Commission Directive 2003/29/EC of 7 April 2003 adapting for the fourth time to technical progress Council Directive 96/49/EC of 23 July 1996 on the approximation of the laws of the Member States with regard to the transport of dangerous goods by rail (RID Framework Directive); and
 - (ii) Commission Directive 2003/28/EC of 7 April 2003 adapting for the fourth time to technical progress Council Directive 94/55/EC of 21 November 1994 on the approximation of the laws of the Members States with regard to the transport of dangerous goods by road (ADR Framework Directive), excluding parts relating to the carriage of radioactive material by road which is the responsibility of the Department for Transport (DfT).
 - (iii) Completion of Council Directive 1999/36/EC of 29 April 1999 on transportable pressure equipment (TPED) insofar as it relates to tanks, pressure drums and bundles of cylinders within scope of the Directive.

A number of other Directives related to the carriage of dangerous goods are listed in appendix 1. These have previously been implemented into UK law and relate or are now included in RID/ADR and so are being brought forward in these Regulations.

2. In implementing these Directives, we have taken the opportunity to consolidate the existing portfolio of GB regulations governing the carriage of dangerous goods, directly referencing for technical detail the 2003 texts of two documents: Regulations concerning the International Carriage of Dangerous Goods by Rail (RID)¹; and the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)². We have also carried forward a number of existing requirements, particularly those in relation to transportable pressure equipment. This CD explains all these proposals and asks for views both on this general approach and on specific issues that arise.

3. **In considering the CD and the draft Regulations, respondents will need access to the 2003 texts of the agreements** and associated corrigenda as it is these versions of the texts to which we refer both in the CD and draft Regulations. The text of RID is available on-line from HSE Direct and the text of ADR is available from the United Nations website at <http://www.unece.org/trans/danger/publi/adr/adr2003> or on cd-rom. Reference copies of both agreements are also available at HSE information centres (details in paragraph 12) or they can be bought from The Stationery Office or accredited agents (ISBN 92-1-139078-8 for ADR; 0-11-552553-X for RID).

4. Developing these draft Regulations has not been easy. The direct referencing of international agreements within domestic regulations is unusual and has presented the challenge of having to frame the Regulations to be consistent with the definitions

¹ Reglements Internationales Relatif au Transport des Marchandises Dangereuses par Chemin de Fer

² Accord Européen Relatif au Transport International des Marchandises Dangereuses par Route

and other terminology used in the agreements. We have had to ensure that we are clear about the scope and application of the draft Regulations, defining terms clearly, placing duties correctly on duty holders and conferring functions arising from RID/ADR accurately on the GB Competent Authority. We have had to meet the challenging task of completing the implementation of TPED and clarifying the relationship of those requirements with the related requirements in RID/ADR. And we have had to provide for the exemptions and derogations allowed by the Directives.

5. Our original intention was to put in place Regulations by the end of 2002 that fully implemented the 2001 EC amending Directives, referencing the 2001 texts of the RID/ADR agreements. But because of the complexities involved, we were unable to meet this deadline and so, with Ministerial approval, we have taken the step of rolling together implementation of the 2001 and 2003 amending Directives thereby moving directly to referencing the 2003 texts of the agreements.

6. A number of questions are posed throughout the CD asking for views on certain issues. We also include some broader questions seeking observations of how RID/ADR affect industry more generally. While answers to these latter questions may not directly influence the development of these proposals, comments will be fed to the Department for Transport (DfT) which, as the Competent Authority for international land transport of dangerous goods, leads on international negotiations on the agreements.

Why we are consulting you

7. The Health and Safety Commission (HSC) has a statutory duty to seek the views of stakeholders on any new proposals. This promotes an open and transparent approach to decision-making, essential if policies and decisions are to have widespread ownership and reflect the needs of those they will affect. So we welcome comments from anyone with an interest in this subject. However, it needs to be borne in mind that where the implementation of European Directives is concerned, the opportunity to make changes will be restricted to those parts of the Directives which afford some discretion to the Member States as to the manner of the implementation.

8. There is a questionnaire at the back of the document that you may like to use when replying. If you wish to expand your comments or address other issues in the proposals please use additional sheets of paper. We will acknowledge responses.

What we would like you to do

9. Please send your comments on the proposals by [xx] September 2003 to:

Transport Safety Policy Division 3
Health & Safety Executive
5 South Wing
2 Southwark Bridge
London SE1 9HS
E-mail: cdgpolicy.spda@hse.gsi.gov.uk
Fax: 020 7717 6670

Any other enquiry regarding the CD should also be sent to the above address.

10. If you reply to this CD in a personal capacity rather than as a post holder of an organisation, you should be aware that the information you provide may constitute “personal data” in terms of the Data Protection Act 1998. For the purposes of this Act, HSE is the “data controller” and will process the data for health, safety and environmental purposes. HSE may disclose this data to any person or organisation for the purposes for which it was collected, or where the Act allows disclosure. You have the right to ask for a copy of the data and to ask for inaccurate data to be corrected.

11. You can obtain an additional copy of the CD free of charge by contacting HSE Books at PO Box 1999, Sudbury, Suffolk CO10 2WA (tel: 01787 881165, fax: 01787 313995). If you require more than one copy there may be a charge to cover postage.

Open Government

12. To make the consultation process as thorough and open as possible we will make the comments we receive available to view at our information centres in Bootle, London and Sheffield, details of which are shown below. Alternatively, you can ask for a copy of the comments to be sent to you. There will be a small charge to cover the cost of a mail order copy or a copy to take away from an information centre. **If you do not want your comments to be made public you must make this clear in your written response to us.**

Health & Safety Executive Bootle Information Centre Magdalen House Stanley Precinct Bootle Merseyside L20 3QZ (tel: 0151 951 4000)	Health & Safety Executive London Information Centre Rose Court 2 Southwark Bridge London SE1 9HS (tel: 020 7717 6000)	Health & Safety Executive Sheffield Information Centre Broad Lane Sheffield S3 7HQ (tel: 0114 289 2330)
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During and after consultation

13. We will review comments as they are received. Given the requirement to implement these proposals as soon as possible, respondents are asked to send their comments in as early as possible. We may contact you if we have a query. When the consultation is finished, HSC, having fully considered the substance of arguments in the development of the proposals, will decide on the best way to proceed based on an interpretation and analysis of results. In due course we will provide a summary of the consultation exercise.

Complaints procedure

14. If you are not satisfied with the way in which this consultation exercise has been conducted, you should contact Eddie Bailey at the address shown on the front cover of the CD. Every effort will be made to respond to your complaint within 10 working days. If you are not satisfied with the way your complaint has been handled you may raise the matter with [Vic Coleman], Head, Transport Safety Policy Division, at the Rose Court address.

BACKGROUND TO THE PROPOSALS

UN Recommendations and the RID/ADR Agreements

15. A framework of international agreements on the carriage of dangerous goods has existed for many years, particularly in relation to railways which in one form or other dates back over a hundred years. More formal regulations were gradually introduced for each mode of transport, often independently from one another, to address specific modal conditions. This lack of uniformity led to inconsistencies and confusion, particularly for operators undertaking multi-modal journeys.

16. To address this, in 1956 the United Nations (UN) Economic and Social Council's Committee of Experts on the Transport of Dangerous Goods published recommendations aimed at consolidating the modal requirements on issues such as classification, packaging and labelling. These UN Recommendations on the Transport of Dangerous Goods - Model Regulations, underpinned by the UN Manual of Tests and Criteria, became the basis of a global classification system for the carriage of dangerous goods. The UN Recommendations are currently in their 12th Revised Edition and form the basis for the current modal requirements (the 13th edition is due to be published in July 2003).

17. Over time the various modal regulations, which today exist as RID (rail), ADR (road), IMDG Code (sea³) and ICAO Technical Instructions (air⁴) have been adapted to align more fully with the UN Recommendations. The modal agreements, however, go further than the UN Recommendations in that they set out additional requirements relevant to the mode of carriage.

RID and ADR Framework Directives

18. As part of its policy to promote the single market and harmonise safety requirements across the European Union, during the mid-1990s the European Commission (EC) adopted the RID and ADR Framework Directives that set out the terms under which EC cross-border and domestic transport of dangerous goods should operate for journeys by road and rail. In broad terms, the Framework Directives forbid the carriage of dangerous goods that are prohibited by the RID/ADR agreements and require that other dangerous goods are carried in compliance with the requirements in RID/ADR. The Annexes to the Framework Directives comprise the Annexes to the RID/ADR agreements. The agreements are updated every two years to take account of revisions to the UN Recommendations and subsequent debate within the RID/ADR UN modal bodies before being adopted as amending directives by the EC for implementation by Member States, usually with a six-month implementation period.

19. The EC has also adopted other Directives relating to the carriage of dangerous goods for transposition into domestic law, for example on dangerous goods safety advisers, implemented in 1999, requiring the appointment and vocational qualification of safety advisers for the carriage of dangerous goods by road, rail and inland

³ International Maritime Dangerous Goods Code 2002 edition ISBN 92-801-5140-1

⁴ International Civil Aviation Organisation Technical Instructions for the Safe Transport of Dangerous Goods by Air: 2003/4 edition ISBN 92-9194-010-0

waterway. In general these requirements are now included in the RID/ADR Framework Directives. In 1999 the EC published Council Directive 1999/36/EC on transportable pressure equipment (TPED). These requirements were part implemented in GB during 2001 as the Transportable Pressure Vessels Regulations (TPVR). The remaining requirements of TPED are included in these proposals, covering tanks, pressure drums and bundles of cylinders.

Current Legislation

20. Current domestic legislation relating to the carriage of dangerous goods consists of requirements based on RID/ADR, the UN Recommendations and purely domestic provisions. This legislation is contained in substantial portfolio of regulations, supported by Approved Documents⁵. A suite of guidance material explains the requirements.

21. The table below lists the principal regulations relating the carriage of dangerous goods or use of transportable pressure receptacles currently in force and for which HSE is responsible, all of which (except CLER) will be revoked and replaced by these proposed Regulations:

- The Classification and Labelling of Explosives Regulations 1983 (SI 1983/1140) (CLER);
- The Gas Cylinders (Pattern Approval) Regulations 1987 (SI 1987/116)
- The Pressure Vessels (Verification) Regulations 1988 (SI 1988/896)
- The Packaging of Explosives for Carriage Regulations 1991 (SI 1991/2097) (PEC);
- The Carriage of Dangerous Goods (Classification, Packaging and Labelling) and Use of Transportable Pressure Receptacles Regulations 1996 (SI 1996/2092) (CDGCPL2);
- The Carriage of Dangerous Goods by Road Regulations 1996 (SI 1996/2095) (CDGRoad);
- The Carriage of Dangerous Goods by Rail Regulations 1996 (SI 1996/2089) (CDGRail);
- The Carriage of Explosives by Road Regulations 1996 (SI 1996/2093) (CER);
- The Carriage of Dangerous Goods by Road (Driver Training) Regulations 1996 (SI 1996/2094) (DTR2);
- The Carriage of Dangerous Goods (Amendment) Regulations 1998 (SI 1998/2885);
- The Transport of Dangerous Goods (Safety Advisers) Regulations 1999 (SI 1999/257) (TDGSA);
- The Carriage of Dangerous Goods (Amendment) Regulations 1999 (SI 1999/303);
- The Transportable Pressure Vessels Regulations 2001 (SI 1999/1426) (TPVR);
- The Packaging, Labelling and Carriage of Radioactive Material by Rail Regulations 2002 (SI 2002/2099) (RAMRail 2002).

⁵ L88: Approved Requirements and Test Methods for the classification and packaging of dangerous goods for carriage ISBN 0-7176-1221-X

L89: Approved vehicle requirements ISBN 0-7176-1680-0

L90: Approved Carriage List (Third Edition) ISBN 0-7176-1681-9

L91: Approved Code of Practice: Suitability of vehicles and containers and limits on quantities for the carriage of explosives ISBN 0-7176-1224-4

L92: Approved requirements for the construction of vehicles intended of explosives by road ISBN 0-7176-1679-7

L93: Approved Tank requirements ISBN 0-7176-1226-0

L94: Approved Requirements for the packaging, labelling and carriage of radioactive material by rail ISBN 0-7176-1227-9

Referencing RID and ADR

22. The spread and complexity of the existing regulatory system prompted HSE and DfT, with the support of stakeholders, to look at other ways of implementing future EU legislation. Work had ended in 1999 on the restructuring of RID and ADR and to align them with the UN Recommendations with the intention of providing a more consistent framework of rules across all modes. The restructuring had involved replacing the old marginal reference numbers by a format of parts, chapters, sections and sub-sections. This presented a good opportunity to change from the existing method of implementing the RID/ADR Framework Directives into domestic law through various sets of regulations, to a single set of regulations, setting out the basic duties and functions and cross-referring to the detail in RID/ADR.

23. This approach has clear advantages: all the requirements relating to carriage by road and rail, except those governing the carriage of radioactive material by road, would be in one set of Regulations, thereby reducing the difficulty in cross-checking requirements across a number of Regulations; by directly referencing the provisions in RID/ADR, consignors and carriers would be able to benefit from fewer differences when transporting goods nationally or in the wider EU; and the two-yearly cycle of amendments to the agreements would more readily be adopted into domestic legislation.

THE DRAFT REGULATIONS

General

24. The draft Regulations are at Annex 1, with supplementary annex (a) containing the conformity marking symbol and annex (b) an example hazard warning panel. They are entitled the Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 200x. As indicated, the greatest changes brought about by these proposals stem from their consolidation of existing requirements, the implementation of the remaining parts of the TPED Directive and the approach of referencing RID/ADR for technical detail. The draft Regulations are lengthy, primarily as a result of the need to express clearly the obligations that fall on duty holders; to confer the competent authority functions on the relevant GB competent authority; the need to bring forward substantial existing requirements relating to transportable pressure equipment and the difficult task of merging existing regulations implementing TPED with related requirements in RID/ADR governing similar equipment.

25. Some changes to existing carriage practices will come about as a result (see paragraphs 40 et seq). But much more will remain the same. The general principles concerning the classification, packaging, labelling and carriage of dangerous goods are unaltered. And there are no changes, for example, to driver training requirements or the role of dangerous goods safety advisers. Existing administrative and enforcement arrangements will be maintained.

Question 1: our new approach in regulating the carriage of dangerous goods by road and rail is not to amend the extensive number of existing regulations but to consolidate them, cross-referencing to RID/ADR for specific compliance requirements. Are you content with this overall approach? If not, please say why.

Understanding the draft Regulations – a Part-by-Part outline

Part I

26. Part I covers introductory provisions, including in regulation 2, the list of definitions used in the proposed regulations. Here we define those terms referred to in the Regulations, generally bringing into one place the various definitions spread throughout RID/ADR (noting, however, that a number of definitions are by cross-reference to RID/ADR). Some other definitions relating to particular Parts, Schedules or regulations are set out in the relevant place of the Regulations.

27. Regulation 3 covers the general application provisions of the Regulations, importing by cross-reference the exemptions and transitional arrangements in RID/ADR. The proposals provide for a number of disapplications relating to all parts of the Regulations, for example in relation to types of vehicle or some flowing from national derogations, with the broad aim being to maintain the scope of the current provisions so far as possible. Regulation 4 provides for the application of the Regulations to international carriage. Regulation 5 provides for the application of the Regulations to tanks and other pressure equipment as required by both RID/ADR and TPED and how these provisions relate to each other, including relevant disapplications and transitional periods (see paragraphs 58 to 72). Regulation 6 provides for the application of the Regulations to the armed forces. Regulation 7 sets out exemptions to certain requirements in the Regulations, most of which stem from derogations under articles 6.9 and article 6.10 of the ADR and RID Framework Directives respectively (see paragraphs 73 to 75).

28. Regulation 8 provides for the split in GB Competent Authority (CA) functions. In broad terms, the Secretary of State is the GB Competent Authority subject to the exceptions listed in regulation 8(2) to (4). Our approach is to specify that these functions are exercised through DfT which acts as the CA for all functions except that HSE acts as the CA for the classification and conditions of carriage of dangerous goods except radioactive materials (for which DfT act), military explosives (for which the Ministry of Defence acts), and for the construction and use of pressure receptacles. This regulation needs to be considered in conjunction with Part III and Schedule 3 of the Regulations, which confer the competent authority functions referred to in RID/ADR on the GB competent authority identified under regulation 8.

Part II

29. Part II implements the primary requirements under RID/ADR using cross-reference. The Regulations generally follow the order of the parts set out in the agreements, so referencing RID/ADR for requirements covering, among other things, training; safety obligations; safety advisers; incident reporting; classification; the dangerous goods list and special provisions; use of packagings; use of tanks, consignment; construction and testing of packagings and tanks; carriage, loading,

unloading and handling; vehicle crews, equipment, operation and documentation; and construction and approval of vehicles.

30. The majority of respondents will want to look very carefully at Part II, and with the application and exemption provisions in Part I and the additional and alternative requirements in Part V in mind, consider both the extent to which the Regulations, and hence RID/ADR, apply to them and whether we have placed the obligations on the right duty holders. In so doing, respondents should bear close attention to the definitions set out in Regulation 2 and those in chapter 1.2 of RID/ADR to which regulation 2 cross-refers, noting that direct referencing means a change to some of the meanings of defined terms historically used in the carriage of dangerous goods regulations. It needs to be borne in mind that where RID/ADR specify that duties should be placed on a particular person, we cannot provide otherwise unless there is a specific provision allowing us to do so.

31. Cross-referring to the duty holders in RID/ADR also means that some duties are imposed on different persons from the equivalent duties under the current Regulations. For instance, in current Regulations, many duties are imposed on the 'operator', whereas Parts II and III of these Regulations impose duties largely on carriers, consignors, fillers, loaders, packers and manufacturers, reflecting the approach in RID/ADR. Furthermore, in relation to regulations 10 and 11 we have included the clause "insofar as they are matters within his control" as our interpretation of RID/ADR is that this is what is intended. In the round, we consider these changes to be of marginal effect as although the definitions of the dutyholders are different, many obligations will fall on the same persons. But we would welcome views.

Question 2: do you think we have placed the right duties on the right people in the draft Regulations? If not, please say why?

Part III

32. Read in conjunction with regulation 8, Part III bestows certain functions on the GB CA. Legally, these proposals must confer all the functions to be performed by a CA in RID/ADR except where these functions exist in other legislation we are not replacing. As a result, this Part provides for the CA to grant approvals, appoint persons, recognise approvals, tests and standards, impose requirements, issue certificates and carry out other miscellaneous functions as set out in RID/ADR, with regulations 31 and 32 providing for the functions in relation to safety adviser vocational training certificates and driver training certificates (allowing for those certificates issued under existing regulations to continue to be recognised). The detailed RID/ADR references giving rise to the functions are laid out in Schedule 3.

33. The split in the CA role between government departments - DfT, HSE and MoD - complicates the provisions in relation to the designation of the GB competent authority for RID/ADR functions and we shall be examining this further during the consultative phase. However, respondents will wish to note that, in essence, the current administrative arrangements for functions in the current suite of regulations will continue unchanged but be extended to cover various new functions, for example in relation to the appointment of persons, testing bodies and monitoring procedures

(and regulation 28 provides for those who wish to become appointed or notified bodies to submit an application to the CA).

Part IV

34. Part IV covers the regulation of transportable pressure equipment to be placed on the market or used at work and implements TPED in full. It includes requirements on conformity assessment and reassessment generally to the construction requirements in RID/ADR, periodic inspection and repeated use, including provisions on the appointment of notified and approved bodies to carry out conformity assessment and reassessment and on conformity marking. These mirror current provisions in the Transportable Pressure Vessels Regulations 2001 and should be considered in conjunction with the application provisions in regulation 5.

35. Respondents will wish to consider these requirements in conjunction with Schedules 1-2 that bring forward the existing regulatory regime for tanks used for the carriage of dangerous goods and for pressure receptacles which are used, or carried, or intended to be carried by road or rail at work; and Schedules 4-8 which largely replicate existing requirements implementing the Transportable Pressure Equipment Directive, on conformity assessment, reassessment and periodic assessment procedures. During the consultative period, we shall be considering whether the requirements in the Schedules can be brought into force by cross-references to TPED rather than reproduce them in the regulations, so removing over 24 pages from the Regulations.

36. A number of issues arise from the provisions on tanks and transportable pressure equipment. These are discussed more fully in paragraphs 58 to 72 and some questions are posed.

Part V

37. Part V - additional and alternative requirements to RID/ADR - comprises ten Regulations that generally bring forward existing regulations, principally security-related in respect of the carriage of explosives by road, as well as precautions to be taken when marshalling trains, the keeping of information by carriers and alternative measures on emergency marking.

Part VI

38. Part VI comprises miscellaneous regulations: on fees including new provisions in relation to applications for appointments to carry out certain tests and inspections in RID/ADR and other inspections arising from other parts of the Regulations and for the approval of standards; and provisions for HSE to authorise exemptions to extend derogations allowed by RID/ADR multilateral agreement or where permitted under the RID/ADR Framework Directives when issued in relation for a limited period and for a particular purpose.

39. This Part also includes standard clauses on defence against proceedings being taken and on consequential amendments listed in Schedule 12 (these will need to be provided for when the Regulations come into force, including amendment to the Schedules of the Pressure Systems Safety Regulations 2000 and consequential

amendments to the list of Statutory Instruments listed in appendix 2); the saving of certain provisions in the old suite of Regulations, for example allowing for the appointment or approval of persons, permitted under current regulations, to be carried forward. We are considering whether further provision is needed in relation to the keeping of records. Schedule 13 lists the 14 sets of regulations that will be revoked when these Regulations come into force.

40. We recognise that some further editorial work is needed to the proposed Regulations, for example to ensure consistency in the way we refer to UN numbers and corresponding Proper Shipping Names. And we are considering whether to provide for representations to be able to be made by duty holders against decisions made by the various competent authorities and persons appointed under the proposed Regulations (such provision exists in relation to conformity assessment procedures in Schedule 4). Lastly, we are considering whether to include further detailed provision to what we have already provided for in regulation 2(7) on how documents should be submitted to the competent authorities.

SIGNIFICANT CHANGES

RID/ADR 2003

41. Paragraphs 42 to 51 below identify a number of significant issues arising from the direct referencing of RID/ADR and we then ask a general question; paragraphs 52 to 57 focus on two particular issues - emergency marking and incident reporting on which we seek specific views; and paragraphs 58 to 72 focus on regulatory requirements on tanks and transportable pressure equipment, again seeking views on particular questions arising. For the RID/ADR 2003 changes, these have been highlighted from commissioned research and our own analysis. As many of the changes are editorial or technical adjustments, we summarise here only what we consider to be the principal changes (with RID/ADR references provided), namely:

- summarising in chapter 1.4 of RID/ADR the duties of the main participants in the transport chain;
- on classification in Part 2, changes are mostly to harmonise with the UN Model Regulations, with some amendments to proper shipping names (PSN), flexibilities with regard to adding technical names and clarification of some classification criteria;
- new classification criteria, UN numbers and PSNs and new carriage requirements for ammonium nitrate;
- new classification and carriage requirements for lithium batteries;
- new UN numbers for desensitised explosives and diagnostic specimens;
- in Parts 4 and 6, new requirements for the construction, testing and inspection of tanks and the revision to requirements on the use of tanks for the carriage of dangerous goods; and new provisions on UN certified pressure receptacles;
- new provisions in Part 4 on certain unpackaged articles, minor changes to both packaging and limited quantities requirements and on labelling;
- clarification in Parts 4 and 6 to ensure that repaired/remanufactured intermediate bulk containers are fully compliant;
- mandatory additional reporting requirements in chapter 1.8 in relation to incidents involving dangerous goods;

- new requirements in Part 7 on fire extinguishers, including a transitional period for compliance;
- revised format on transport documentation in Part 5; and
- minor changes on vehicle and wagon marking, also in Part 5.

42. We recognise, however, that we may have omitted changes that some respondents might consider significant to their business so we have included a question seeking views on any issue of concern. Those respondents who wish to examine the changes in more depth can log on to our website address www.hse.gov.uk/spd/cdg⁶ for our summary of the ADR 2003 changes, and the report we commissioned into the effect of changes brought about by RID 2003.

Changing from UN-based requirements to RID/ADR

Limited Quantities

43. By directly referencing RID/ADR, these proposals will alter the current threshold levels for the carriage of dangerous goods in limited quantities provided for in regulation 6(3)(c) and Schedule 3 of the Carriage of Dangerous Goods (Classification, Packaging & Labelling) and Use of Transportable Pressure Receptacles Regulations 1996. From our analysis comparing these thresholds with those in table 3.4.6 of RID/ADR, we conclude that these thresholds will rise in relation to an increased number of dangerous goods than will decrease although some sectors transporting particular goods where the thresholds have decreased may be disadvantaged. Our initial analysis can be accessed on our website at www.hse.gov.uk/spd/cdg.

Load thresholds

44. A similar picture of swings and roundabouts arises from an examination of the changes on load limit thresholds in comparing regulation 2(4) and Table 2 of Schedule 1 in the Carriage of Dangerous Goods by Road Regulations 1996 and the Carriage of Dangerous Goods by Rail Regulations 1996 with those set out in draft regulation 3(6) and (7) and paragraph 1.1.3.6.3 of RID/ADR. For class 1 goods, a derogation has been agreed allowing an increase in threshold for transport categories 1 and 2 (see paragraph 74 and appendix 4).

Packaging

45. Similarly, packaging requirements will now rely on RID/ADR rather than the UN Recommendations for their basis. However, we consider that this will make little difference in practice and not have much of a cost impact for industry. Although possibly more prescriptive than previously, the majority of the UN numbers affected will be subject to more flexible packing instructions. The remaining UN numbers tend to be those that, at present, are the subject of special packing arrangements and which, if anything, will benefit from a slightly more relaxed regime in the future.

⁶ Wherever we refer to our website for information, respondents can also obtain hard copies of the information by getting in touch with us via our contact details on the front cover of this document.

Explosives not subject to RID/ADR

46. In addition to implementing the RID/ADR requirements, Part V and Schedule 11 of these draft Regulations deal with a number of existing national security measures for explosives that we propose to carry forward, some in amended form. The classification of explosives will continue to be formally approved by HSE's Explosives Inspectorate in accordance with the Classification and Labelling of Explosives Regulations 1983 (CLER), but the duty will be changed to require classification for carriage/import purposes only in accordance with carriage agreements across all the modes ie RID, ADR, IMDG Code and ICAO Technical Instructions. It will no longer be necessary for approval of classification under CLER for keeping or supply.

47. We propose to delete the general labelling of explosives for carriage in accordance with the international agreements from CLER. This will be dealt with in the relevant modal carriage regulations. However, the additional security labelling requirements will be retained and will continue to apply to carriage, keeping and supply. We are considering whether to retain the requirements on duration of carriage and delivery currently in regulation 27 of the Carriage of Explosives by Road Regulations 1996.

48. ADR no longer requires an attendant to accompany the driver of explosives vehicles. However, we propose to retain this provision. Attendants will have a security role and will need to have training appropriate to their duties. They will not need to hold a Driver's Certificate, unless they are given additional responsibilities requiring them to take over the duties of the driver at any time. This requirement will apply to all explosives vehicles including non-UK registered vehicles while carrying explosives in Great Britain. There will be an exemption where the load falls below the thresholds set out in ADR 1.1.3.6.

49. At present, our current suite of regulations applies to private individuals carrying explosives for their own use whereas RID/ADR do not. Following informal consultation with interest groups and the Home Office we propose to retain simplified requirements in regulation 3 (8) and Part V of the proposed Regulations.

Diesel oil, gas oil or heating oil (UN 1202)

50. Under current domestic legislation, dangerous goods of UN 1202 with a flashpoint up to and including 60.5 °C are considered dangerous for carriage. Under RID/ADR, however, items of UN 1202 are considered dangerous for carriage if the flashpoint is up to and including 100 °C. As a result of aligning our domestic legislation with RID/ADR some transport operations, mainly affecting the carriage of these goods in tanks, currently not subject to the regulatory carriage provisions, will find they are now subject to the relevant requirements of RID/ADR.

Small containment systems ("Bowsers") for the carriage of liquid fuel

51. There is a wide variety of bowsers for sale on the UK market designed for the carriage of dangerous goods such as liquid fuels. Under current GB regulations they need to be "fit for purpose" if they are tanks or be UN-certified if they are intermediate bulk containers (IBCs). When these Regulations come into force, new

browsers, designed to carry dangerous goods on public roads, will need to be constructed, tested and inspected to ADR requirements for tanks or IBCs as appropriate. It is likely that many existing bowser types will not meet ADR requirements and will need to be redesigned. It is the view of DfT that new metal browsers with a capacity above 450 litres will need to meet ADR tank requirements. Alternatively, metal and plastic browsers with a capacity of up to 3000 litres may be considered as IBCs, providing they meet the appropriate ADR IBC requirements.

Question 3: the direct referencing of RID/ADR introduces a number of changes to existing requirements that apply to the carriage of dangerous goods. Some have been highlighted in the above paragraphs, notably changes in the scope to threshold levels, load limits and packaging requirements. To what extent do these benefit or hinder your operations? Are there others not highlighted that are of concern?

Vehicle/wagon marking – emergency scheme

52. Under current legislation, it is mandatory for those transporting dangerous goods in bulk or in tanks to display orange coloured panels bearing the appropriate UN number, emergency action code (EAC) and, for carriage in tanks, an emergency telephone number. These requirements apply to UK registered vehicles on journeys within GB. Those carrying such goods on an international journey within GB or operating non-UK registered vehicles or wagons within GB must comply with the RID/ADR Hazard Identification Number (HIN) marking system.

53. Our policy of referencing RID/ADR in these draft regulations would introduce alternatives to the current regime, allowing carriers to placard their transport units, tank vehicles, tanks, containers or wagons using either the EAC or HIN systems. As a positive point this would offer some flexibility in marking arrangements, recognising that an increasing number of these movements in GB are part of an international journey. However, concerns have been expressed that the HIN system is less safe because it only identifies the hazard, whereas the EAC system identifies the action required to contain an incident and, for tanks, provides an emergency telephone number where further urgent enquiries can be directed. The emergency services in particular are concerned that allowing for these alternatives on placarding could hinder their ability to respond effectively to incidents, although in practice they would need to continue to understand both marking systems.

54. We have drafted the Regulations to allow duty-holders the option of using either the EAC or HIN marking system for journeys wholly within GB. The EAC is set out in the “hazchem” list published by the Government’s Fire Services Inspectorate, as amended from time to time. Regulation 19 requires duty holders to comply with the requirements of RID/ADR to placard relevant vehicles and wagons appropriately while regulation 53 allows for the alternative of marking in line with the requirements of Schedule 9, that is the EAC system. We are not necessarily wedded to this approach and would welcome views.

Question 4: what is your view on whether we should continue to maintain the mandatory EAC system for journeys taking place wholly within GB, or offer a choice of using either the EAC system or the HIN system for domestic carriage operations?

Dangerous Goods Reporting Requirements

55. Draft regulation 13 references paragraph 1.8.5 of RID/ADR that introduces new additional reporting requirements for incidents involving dangerous goods. Subject to a number of criteria set out in RID/ADR, reports will need to be submitted to the Competent Authority where dangerous goods are released or where there is an imminent loss of product; if personal injury, material or environmental damage has occurred; or where the authorities are involved. These requirements will be in addition to those under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (RIDDOR) that include general reporting duties and specific provisions concerning incidents involving dangerous goods⁷.

56. We are proposing to keep RID/ADR reporting requirements separate from those under RIDDOR because the criteria for reporting include important distinctions, the forms, methods and timings of submissions are different and any further amendments to the RID/ADR reporting procedure and design of the model report form could be more readily accommodated.

57. So far as the administrative arrangements for completing and submitting the RID/ADR report forms are concerned, DfT and HSE will produce short guidance to explain procedures that in essence mean that RID/ADR report forms will need to be submitted to DfT as the Competent Authority while RIDDOR report forms should continue to be sent to HSE and Local Authorities. For some incidents, this will mean that two separate reports will be required. However, this new reporting requirement will apply only to incidents involving dangerous goods and not to any kind of reportable incident.

Question 5: there are new requirements for reporting incidents involving the carriage of dangerous goods. We are proposing to keep the administrative arrangements for making such reports separate from RIDDOR reporting requirements. Are you content with the approach? If not, please say why.

Tanks and pressure receptacles

RID and ADR

58. The proposals implement, for the first time, the requirements in RID/ADR that relate to the construction, testing, inspection and use of new tanks and pressure receptacles and their valves and other equipment. Until now, we have taken advantage of a derogation in article 6.4 of the RID/ADR Framework Directives deferring implementation of these requirements and retaining our national provisions, which require that:

- (i) tanks are constructed to be safe and suitable for purpose and tested and inspected both initially and periodically by a competent person in accordance with a suitable written scheme;

⁷ For details of reportable dangerous occurrences involving dangerous goods see *A guide to the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995* L73 (Second edition) HSE Books 1999 ISBN 0 7176 2431 5

- (ii) pressure receptacles are constructed to meet specifications approved by HSE; initially inspected for conformity with these specifications by a body appointed by HSE; and periodically inspected and tested by a competent person to ensure they remain safe.

59. We can no longer take advantage of this derogation. These proposals therefore require that, where the Directives authorise the use of tanks or pressure receptacles for the carriage of dangerous goods, they will need to be constructed, tested, inspected and used in accordance with the relevant requirements of Parts 4 and 6 of RID/ADR. That is, tanks and pressure receptacles built on or after the date the regulations come into force will need to be:

- (i) constructed to meet either standards referenced in RID/ADR or those approved by the competent authority as meeting the minimum requirements of RID/ADR;
- (ii) tested and inspected, both initially to verify conformity with the appropriate standards, and periodically to ensure they remain in conformity with an approved standard. These activities must generally be carried out by bodies appointed by the relevant competent authority; and
- (iii) used in accordance with the relevant requirements of Part 4 of RID/ADR.

60. Appendix 3 sets out the construction standards for tanks that DfT are proposing to approve under the power provided in the Regulations for the GB competent authority to approve standards. As there are few construction standards referenced in RID/ADR, building to standards approved by DfT will be the principal route through which manufacturers of tanks comply with the construction requirements of the Regulations for the foreseeable future.

61. For pressure receptacles, Chapter 6.2 of RID/ADR references a substantial number of standards. However, the Regulations also provide a power for HSE to approve standards meeting the requirements of RID/ADR. HSE has already approved a number of such standards under Transportable Pressure Vessels Regulations 2001 (TPVR) which can be accessed via www.hse.gov.uk/a-z/t.htm#transportable_pe. The inclusion of these standards does not preclude the approval of further standards for tanks and pressure receptacles and dutyholders will be able to apply to DfT or HSE (as appropriate) for the approval of additional standards at any time. As standards are replaced, DfT or HSE will withdraw those that are out of date.

Question 6: Are you content with the standards already approved by HSE for pressure receptacles and those DfT propose to approve for tanks? If not, please say why. Are there other standards you would like DfT or HSE to consider for approval?

Transportable Pressure Equipment Directive (TPED)

62. The implementation of the tank and pressure receptacle requirements of RID/ADR is complicated by the additional need to fully implement the requirements of TPED. It applies to a restricted range of pressure receptacles and tanks used for the carriage of dangerous goods ie those classified as gases or three “near” gases. Although TPED refers to the construction requirements in RID/ADR for new transportable pressure equipment, its requirements for the initial and periodic inspections are different as it requires such inspections to be carried out in line with

specific procedures by bodies appointed by competent authorities in accordance with specific criteria. It also allows for the reassessment of existing transportable pressure equipment and for the conformity marking of all new and reassessed equipment with a pi-mark to facilitate free movement throughout the EU.

63. A partial implementation of TPED was completed in 2001 when TPVR came into force in respect of transportable pressure equipment where RID/ADR already included references to construction standards (cylinders, tubes and cryogenic receptacles). These proposals extend the requirements of TPVR to cover those types of transportable pressure equipment not already covered (tanks, pressure drums and bundles of cylinders within scope of TPED). Part IV of the proposed regulations therefore carries forward the requirements currently in TPVR extending these to all transportable pressure equipment while making some changes to take account of the general referencing approach we have taken.

64. We also propose modifying draft regulation 39(2) to allow for the carriage of items of transportable pressure equipment overdue for their periodic inspection for the sole purpose of taking it to be inspected. This is to take account of the relaxation in 4.1.6.5 of RID/ADR.

'Old' tanks and pressure receptacles

65. These proposals also cater for 'old' tanks and pressure receptacles constructed before the coming into force date of the regulations. Because of their potentially long life, we need to ensure that they continue to be used in accordance with the requirements that currently apply to them. The proposals therefore bring forward, in Schedules 1 and 2 to the proposed Regulations, the requirements currently applying to old pressure receptacles in the Carriage of Dangerous Goods (Classification, Packaging and Labelling) and Use of Transportable Pressure Receptacles Regulations 1996; and to old tanks in the Carriage of Dangerous Goods by Road Regulations 1996 and the Carriage of Dangerous Goods by Rail Regulations 1996.

66. These requirements are brought forward with two modifications: on TPED transitional provisions and in relation to periodic inspection of tanks and pressure receptacles. The transitional provisions in TPED allow a period over two years where dutyholders can:

- (i) manufacture new transportable pressure equipment within scope of TPED either to the requirements of TPED or the existing "pre-TPED" requirements (ie those brought forward in Schedule 1 and 2 to the draft Regulations); and
- (ii) reassess existing transportable pressure equipment in accordance with TPED or continue to comply with existing "pre-TPED" requirements.

67. This choice was allowed for in TPVR in respect of cylinders, tubes and cryogenic receptacles covered by those Regulations. Beyond 1 July 2003, this choice is no longer available in respect of those types of transportable pressure equipment. However, these Regulations will apply a similar choice to the types of transportable pressure equipment newly covered – pressure drums, bundles of cylinders and tanks – until 1 July 2005.

68. On periodic inspection, we propose to phase out the competent person periodic inspection regime in favour of inspections by bodies appointed by the competent authority. We consider that this will strengthen inspection arrangements and minimise the potential confusion from having three separate periodic inspection regimes: one for transportable pressure equipment; one for “non-TPED” tanks and pressure receptacles and one for old tanks and pressure receptacles. From 1 July 2005, the proposals therefore envisage that the periodic inspection of all pressure receptacles to ensure their continued safety and compliance with the construction standards to which they were built will be carried out by inspection bodies appointed by DfT or HSE as appropriate.

Question 7: do you agree the proposal to phase out the competent person periodic inspection regime in favour of inspections by bodies appointed by the competent authority by 1 July 2005? If not, please say why.

69. In addition to the above changes we are also considering making the following changes to requirements on old pressure receptacles:

- (i) extend the scope of Schedule 2 so that it covers dangerous goods (such as UN 1052 Hydrogen Fluoride, Anhydrous) other than gases for which pressure receptacles are used as the method of containment. This change is needed to carry forward requirements for pressure receptacles contained in existing regulations and approved documents;
- (ii) allow the carriage and use of non-refillable old pressure receptacles built before the coming into force of these Regulations; and
- (iii) strengthen the requirements in Schedule 2 to provide for clearer marking of periodic inspection dates, plus the stricter regulation of filling procedures and the use and carriage of old pressure receptacles after the expiry of the time-limit for the next periodic inspection.

70. The last proposed change above is to address an increase in the number of serious incidents arising from unsafe filling procedures or what appears to be the current practice of returning pressure receptacles for periodic inspection only when they need to be refilled. We propose to modify the provisions in paragraphs 4 and 5 of Schedule 2 to these draft Regulations to prohibit the use (including filling) or carriage of old pressure receptacles overdue for their next periodic inspection. We propose to make clear that the examination at appropriate intervals means those intervals specified in the relevant packing instruction in Part 4 of RID/ADR. This prohibition would nevertheless be relaxed to allow the transport of “out of test” cylinders for the sole purpose of taking them for periodic inspection. We also propose to introduce more specific requirements for the order in which the month and year of the periodic inspection date is marked on the cylinder. This is to minimise the potential confusion in the years 2001 to 2012 where, for example, 03/06 might mean March 2006 or June 2003.

Question 8: are you content that we modify Schedule 2 to the proposed Regulations along the lines suggested in paragraphs 69 to 70? If not, please say why.

71. DfT is responsible for appointing tank inspection bodies under the proposed Regulations and it is intended that their current scheme for approving and appointing international RID/ADR tank inspection bodies will continue. The scheme will be

expanded to cover appointments of domestic tank inspection bodies for new tanks; for old tanks when the competent person regime ends; and for TPED notified and approved bodies. The approval scheme will be administered by the United Kingdom Accreditation Service (UKAS) on behalf of DfT (visit www.ukas.com for more information). Information about the new appointment scheme will shortly be posted of the DfT website at www.roads.dft.gov.uk

72. HSE is the competent authority responsible for appointing pressure receptacle inspection bodies under the proposed Regulations. The current scheme covering the initial inspection of old pressure receptacles under Schedule 2 (which will need to be retained until the TPED transition period lapses in 1 July 2005) and the initial and periodic inspection of pressure receptacles in scope of TPED, will be expanded to take account of the need to inspect non-TPED pressure receptacles such as breathing bottles and for old pressure receptacle when the competent person periodic inspection regime is phased out. HSE will continue to take the advice of UKAS in appointing applicants to become inspection bodies. Further information on the appointment of inspection bodies can be accessed via www.hse.gov.uk/a-z/t.htm#transportable_pe.

Derogations, multilateral agreements and certificates of exemptions

73. Article 6 of the RID and ADR Framework Directives, as amended, allows for the granting of certain derogations from the requirements of RID/ADR. Article 6.5 permits the retention of national provisions with regard to reference temperatures for filling certain tanks and pressure receptacles intended for the carriage of liquefied gases. Article 6.9 allows Member States to agree permanent derogations with the EC for national carriage operations where the dangerous goods are being carried in small amounts by road or rail, or where the transport by road is deemed to be a local journey.

74. The list of national derogations under article 6.9 agreed by the EC in December 2002 is at Appendix 4. These have largely been taken forward either in the application provisions (regulations 3 and 5) or exemption provisions (regulation 7). The derogation from article 6.5 has been taken forward in regulation 29(2) in relation to construction and regulation 30(3) in relation to filling. Other derogations currently permitted under national legislation will fall as they either fail to meet the small amount or local journey criteria permitted under the Directives or we have considered them to be sufficiently provided for under RID/ADR.

75. There is also the opportunity for Member States or signatories to RID/ADR to sign multilateral agreements in order to transport dangerous goods under conditions which are different from those specified in RID/ADR; and/or national competent authorities to issue certificates of exemption for ad hoc journeys (see www.hse.gov.uk/spd/cdg for the current list of exemption certificates). These discretions have been exercised in regulation 55, allowing for the Executive to approve such exemptions, relating to journeys within GB, by way of letter of approval rather than a certificate of exemption. Existing certificates of exemption made under current powers are being reviewed; all will fall with the coming into force of these Regulations with some being replaced by letters of approval.

Fees

76. The provisions in regulation 54 and Schedule 10 set out new or extended provisions for the charging of fees in relation to tanks and pressure receptacles. These are:

- (i) a fee which is reasonable in the light of the actual work performed for the approval of standards for pressure receptacles by HSE and tanks by DfT which meet the construction requirements of RID/ADR;
- (ii) a fee of £283 for the administrative processing of any new application for the appointment by HSE of an inspection body for the initial or periodic inspection of pressure receptacles or any extension of an existing appointment;
- (iii) a fee that is reasonable in the light of the actual work performed in relation to any assessment of an application by UKAS, on behalf of the Secretary of State, by a body wishing to carry out initial or periodic inspections of tanks or pressure receptacles under these regulations; or directly by UKAS, on behalf of the Secretary of State, to the applicant being assessed;
- (iv) a provision allowing inspection bodies to charge reasonable fees for carrying out their duties under these regulations

77. In addition, Schedule 10 of these proposals amends the Fees Regulations 2003 so that its provisions in relation to the charging of fees for the classification of explosives, the examination and vocational qualification of DGSA's and the approval of initial and annual training courses for drivers of dangerous goods vehicles refer to the relevant provisions in the new regulations.

Petroleum-related issues

78. There are two petroleum-related issues that require further consideration because the current requirements will not be carried forward in the new regulations. First, Regulation 20 of Carriage of Dangerous Goods by Road Regulations 1996 (CDGRoad) (as amended by the Dangerous Substances and Explosive Atmosphere Regulations 2002 (DSEAR), Schedule 6 Pt 2, paragraph 10), prohibits the direct filling of fuel tanks or a portable container with petrol from road tankers. Second is the power, through Regulation 5(1)(c) of CDGRoad for the HSC to approve and publish Approved Tank Requirements - L93, which deals with the provisions for bottom loading and vapour recovery systems of mobile containers carrying petrol. In addition to giving the basic specification for petrol tanks which has to be met to comply with CDGRoad, L93 implements that part of EC Directive 94/63/EC on the control of volatile organic compound emissions resulting from the storage of petrol and its distribution from terminals to service stations, which applies to mobile containers.

79. We propose to carry these requirements forward. Separate proposals will be developed and issued for consultation by HSE's Chemical and Flammables Policy Division in the near future. The proposals will seek views on the future legislative location of these requirements that could be DSEAR or other appropriate legislation.

REGULATORY IMPACT ASSESSMENT

80. A Regulatory Impact Assessment (RIA) on these proposals is at Appendix 5. In it, we have highlighted those changes that we consider will involve significant costs or bring benefits to industry. Some measures, for example on new packaging or in relation to limited quantities, have been assessed as cost-benefit neutral and so have been omitted although we recognise that costs could fall disproportionately on certain sectors or businesses.

81. The total costs to industry are estimated at £360 million over ten years in present value terms. Of this, cost £57 million is incurred in the first year after the proposals come into force. The total cost to industry of the reclassification of diesel and other fuel oils is estimated at around £75 million over ten years in present value terms. HSE believes that these costs can reasonably be set against the £2.8 billion operational benefit to industry from the recent increase in the maximum axle weight limit from 38 tonnes to 44 tonnes. However, we are conscious that some of our estimates are based on imprecise data and we would welcome comments on the RIA to help us develop more accurate figures after the consultation period has ended.

Question 9: we have included a pre-consultation Regulatory Impact Assessment at Appendix 5. How well do you think this has assessed the relevant cost and benefits? What would you like us to consider further?

GUIDANCE

82. Our existing suite of advisory material was designed to guide stakeholders through the current carriage requirements as provided for in the extensive portfolio of Regulations. Our new approach of consolidating the Regulations into one set, identifying duties on those in the transport chain, and then directly referencing RID/ADR for technical compliance requirements, renders the suite of guidance redundant. We intend to replace it with a short introductory leaflet (in effect a replacement of the current free leaflet “are you involved in the carriage of dangerous goods by road or rail?”) to guide people in assessing whether the Regulations apply to them, what they have to do to comply and to steer readers through RID/ADR to understand what how the agreements are laid out and what steps they need to take in considering the actions needed in their particular circumstances.

83. We consider that a widely-available free leaflet (together with a revised one on the safe use of gas cylinders) would provide sufficient introduction for duty holders to understand broadly what is required under the new Regulations and RID/ADR; and one that would be easy to revise to reflect future amendments stemming from the two-yearly updates to RID/ADR. We believe that specific industry sectors should consider developing their own material, targeted at their own needs in relation to the carriage of particular dangerous goods. Some have already started this process and we will assist as much as we can (but without formally endorsing particular publications). We will review and add to material on our website in order to keep industry up to date with developments and issues of interpretation as best we can.

Question 10: we propose to publish a general introductory guidance leaflet on how to comply with the Regulations and RID/ADR, leaving it to industry sectors to

determine and, if necessary, produce their own of specific guidance. Are you content with this approach? If not, please say why.

LOOKING FORWARD

84. Once in force, these proposals will represent a significant streamlining of the Regulations governing the carriage of dangerous goods by road and rail in this country; and, by directly referencing RID/ADR for many of the compliance requirements, a substantial change to what has gone before. We anticipate that this new approach should aid compliance and ease the process of implementing future amending Directives. It needs to be borne in mind that future versions of RID/ADR will not change the requirements of these proposed Regulations until brought into effect by amending Regulations.

Question 11: looking to the future and bearing in mind that any amendments to the carriage of dangerous goods by road and rail stem from and are subject to international negotiations, what changes to RID/ADR would you welcome?

The consultative exercise

85. In order to help us assess the effectiveness of this consultative exercise, please answer the following questions.

Question 12: how well does the CD represent the different policy issues involved in this matter?

Question 13: is there anything you particularly liked or disliked about this consultative exercise?

List of Directives

Council Directive 94/55/EC on the approximation of the laws of the Member States with regard to the transport of dangerous goods by road (the ADR Framework Directive)

Council Directive 96/49/EC on the approximation of the laws of the Member States with regard to the transport of dangerous goods by rail (the RID Framework Directive)

Council Directive 96/35/EC on the appointment and vocational qualification of safety advisers for the transport of dangerous goods by road, rail and inland waterway

Council Directive 1999/36/EC on transportable pressure equipment (part implemented by the Transportable Pressure Vessels Regulations 2001)

Directive 2000/18/EC of the European Parliament and of the Council on minimum examination requirements for safety advisers for the transport of dangerous goods by road, rail and inland waterway

Directive 2000/61/EC of the European Parliament and of the Council amending Council Directive 94/55/EC on the approximation of the laws of the Member States with regard to the transport of dangerous goods by road

Directive 2000/62/EC of the European Parliament and of the Council amending Council Directive 96/49/EC on the approximation of the laws of the Member States with regard to the transport of dangerous goods by rail

Commission Directive 2001/2 adapting to technical progress Council Directive 1999/36/EC on transportable pressure equipment

Commission Directive 2001/6/EC adapting for the third time to technical progress Council Directive 96/49/EC on the approximation of the laws of the Member States with regard to the transport of dangerous goods by rail (partially implemented by the Packaging, Labelling and Carriage of Radioactive Material by Rail Regulations 2002 which came into force on 9 September 2002)

Commission Directive 2001/7/EC adapting for the third time to technical progress Council Directive 94/55/EC on the approximation of the laws of the Member States with regard to the transport of dangerous goods by road (partially implemented by the Radioactive Material (Road Transport) Regulations 2002, prepared by DfT, which came into force on 7 June 2002)

Commission Directive 2002/50 adapting to technical progress Council Directive 1999/36/EC on transportable pressure equipment, being implemented through the Carriage of Dangerous Goods and Transportable Pressure Vessels (Amendment) Regulations 2003

List of consequential amendments
(not otherwise referred to in main text of CD)

Petroleum Consolidation Act 1928, s.18(4) contains a brief cross reference to Carriage of Dangerous Goods by Road Regulations 1996

Dangerous Substances (Notifications and Marking of Sites) Regulations 1990 which picks up a number of definitions from Carriage of Dangerous Goods (Classification, Packaging & Labelling) and Use of Transportable Pressure Receptacles Regulations 1999 and the definition of class 1 now being deleted from Classification and Labelling of Explosives Regulations 1983

Control of Explosives Regulations 1991 includes references to the definitions of 'Division' and 'Compatibility Group S' now being deleted

Coal and other Safety-Lamp Mines (Explosives) Regulations 1993, regulations 5(10)

Notification of New Substances Regulations 1993, Schedule 2A

Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995, regulation 59, Schedule 2, Part 1, paragraph 17A, Schedule 2, part IV where there are a number of cross-referring definitions

Health and Safety (safety Signs and Signals) Regulations – regulation 2(1)

Producer Responsibility Obligations (Packaging Waste) Regulations 1997, Schedule 3, Part III, paragraph 3

Radiation (Emergency Preparedness and Public Information) Regulations 2001 – regulation 2(1) and 3

Chemicals (Hazard Information and Packaging for Supply) Regulations 2002 – regulation 2 (1), 7(3)(a), 8(1), 9(2), 18(2) dealing with the interface between CHIP and the carriage regulations

Control of Asbestos at Work Regulations 2002/2675 – regulation 23(3)(a), 23(3)(b) and Schedule 2 dealing with the interface between asbestos regulations, CHIP and the carriage regulations

Control of Lead at Work Regulations 2002 – regulation 2(1), Schedule 2

Control of Substances Hazardous to Health Regulations 2002, Schedule 7

List of tank standards

STANDARD	TITLE	NOTE
BS 7122	British Standard Specification for welded steel tanks for the road transport of liquefiable gases (BSI)	<p>1. Must be used in conjunction with BS5355 and PD 5500.</p> <p>2. The requirements of 6.8.2.1.18 of ADR must be considered.</p> <p>3. In addition to the requirements of paragraph 14.4, shells intended for the carriage of UN1053 hydrogen sulphide, UN1064 methyl mercaptan, UN1017 chlorine, UN 1076 phosgene or UN1079 sulphur dioxide shall not have an opening below the surface level of the liquid. However, for UN 1017 chlorine and UN 1079 sulphur dioxide, shells may have filling and discharge openings below the surface level of the liquid, provided the valves are recessed inside the contours of the shell protected by a valve chest. This valve chest shall be protected by doors affording protection against external damage at least equivalent to that afforded by the shell. The doors shall be capable of being securely closed during carriage.</p>
PD 5500	Specification for Unfired fusion welded pressure vessels	The requirements of 6.8.2.1.1 of RID/ ADR shall also be applied.
ASME VIII	Boiler and Pressure Vessel Code	The requirements of 6.8.2.1.1 of RID/ADR shall also be applied.
AD 2000 - MERKBLATTER	Technical Rules for Pressure Vessels	The requirements of 6.8.2.1.1 of RID/ADR shall also be applied.
CODAP 2000	Code for Construction of Unfired Pressure Vessels	The requirements of 6.8.2.1.1 of RID/ADR shall also be applied.
STOOMWESEN	Rules for Pressure Vessels	The requirements of 6.8.2.1.1 of RID/ ADR shall also be applied.
BS EN 12493	Welded Steel tanks for liquefied petroleum gas (LPG) – Road tankers – Design and Manufacture	To include all Annexes.
PD 13094	Design and Construction of Low Pressure Metallic Tanks for the Transport of Dangerous Goods	
BS EN 12972	Tanks for transport of dangerous goods – Testing, inspection and marking of metallic tanks	
BS EN 1432	Swap bodies – Swap tanks – Dimensions, requirements, test methods, operation conditions.	<p>1. An approved PV code shall be used for detailed design criteria of the tank shell.</p> <p>2. The principles of construction in 6.8.2.1 of RID/ADR shall also be applied.</p>
CSC	The International Convention on Safe Containers 1972	<p>1. An approved PV code shall be used for detailed design criteria of the tank shell.</p> <p>2. The principles of construction in 6.8.2.1 of RID/ADR shall also be applied.</p>
GM/RT 2101 VERSION 2*	Railway Group Standard: Requirements for the Design, Construction, Test and Use of the Tanks of Rail Tank Wagons	<p>1. An approved PV code shall be used for detailed design criteria of the tank shell.</p> <p>2. In clause 5.1.9 of this standard the equivalent wall thickness shall be obtained from the formula given in 6.8.2.1.18 of RID and the definition of mild steel from RID 1.2.1</p>

National Derogations to be implemented in The Carriage Regulations

The following permanent derogations from EC directives were agreed by the EC in December 2002 and will be taken account of in the consolidated regulations:

ROAD: CROSSING PUBLIC ROADS [draft regulation 3(16)+(18)]

The present disapplications relating to moving goods across public roads will be carried forward. The disapplication allows carriage between one part of private premises and another part of those premises situated in the immediate vicinity of that first part where both parts are occupied by the same person.

[CDGRoad Sch 2 (3)(b); CER Reg 3(3)(b); DTR Sch 1 para (g); DGSA Sch 1 Para 1(f)]

ROAD: OPENING PACKAGES [draft regulation 7(5)(a)]

The present provisions permitting the driver and vehicle crew to open packages only when authorised to do so by the vehicle operator will be carried forward.

[CDGRoad Reg 12(3)] and CER Reg 19(4)]

ROAD + RAIL: CARRIAGE OF STORAGE TANKS [draft regulation 5(14)+(17)]

The present disapplication relating to the movement of storage tanks subject to taking suitable safety measures will be carried forward.

[CDGRoad Sch 2 para 4 and CDGRail Reg 2(3)]

ROAD + RAIL: CLASS 1 EXPLOSIVES: HIGHER EXEMPTION THRESHOLDS [draft regulation 3(7)(b)]

The present higher GB exemption thresholds for a number of requirements are linked to CER Schedule 5 Part II. Similar thresholds will be achieved by increasing two corresponding thresholds in RID and ADR 1.1.3.6.3. The threshold for Transport Category 1 explosives is increased from 20kg to 50kg and for Transport Category 2 explosives from 333kg to 500kg. The increased thresholds will apply to all relevant explosives requirements.

[CER Reg 15, 20, 21, 25 and Sch 5; DTR Sch 2, Part II(d); DGSA Sch 1, Para 2(a)]

ROAD + RAIL: CLASS 1 EXPLOSIVES: MIXING RULES [draft regulation 7(1)+(2)]

Some of the present additional GB mixing rules will be carried forward. The provisions allow greater flexibility for carrying different types of explosives and explosives with other dangerous goods.

[CER Sch 4, Paras 6(a) + (c); 7(c), (d) + (f); CDGRail Sch 9, Paras (a) + (c)(ii)]

ROAD: CLASS 1 EXPLOSIVES: MAXIMUM LOAD [draft regulation 7(3)]

Presently in GB the carriage of up to 5,000kg of explosive articles of 1.1C, 1.1D, 1.1E and 1.1J is permitted in an EX/II vehicle. This provision will be carried forward.

[Table I of Approved Code of Practice L91]

ROAD: CLASS 1 EXPLOSIVES: SUPERVISION REQUIREMENTS [draft regulation 7(5)(c)+(d)]

The present supervision requirement for explosives vehicles are being retained [CER Reg 20(1)(b), (3)+(4)]

ROAD: CLASS 2: TRANSPORTABLE PRESSURE RECEPTACLES [draft regulation 5(15)+(16)]

Light gauge metal cylinders used for hot air balloons will be permitted to be carried by road subject to the conditions set out in ADR Multilateral Agreement M90. Carriage only between the filling and launch/landing sites. A limit of 5 cylinders per transport unit will also apply. [CDGCPL Schedule 9(1)(a)(iii)]

ROAD: CLASS 3 FLAMMABLE LIQUIDS: ALCOHOL [draft regulation 3(14)]

The provisions of paragraph 102 of Approved Document L88 Approved Requirements and Test Methods relating to carriage on UN 3065 will be carried forward. The provisions permit the carriage of alcoholic beverages with alcohol of not more than 70% by volume to be carried in 1,000 litre wooden casks that are not type approved.

ROAD + RAIL: CLASS 7: LOW HAZARD RADIOACTIVE MATERIALS [draft regulation 3(9)]

The present provisions relating to disapplications for certain luminous devices; smoke detectors; and gaseous tritium light devices will be carried forward [RAMRail Reg 4(1); DGSA Sch 1, Para 1(c) to (e)]

ROAD: TRANSPORT DOCUMENT [draft regulation 3(7)(a)]

The provisions disapply the requirement to carry the Transport Document for small quantities of dangerous goods will be carried forward. [CDGRoad Sch 2, Para 5; CER Reg 3(4)]

ROAD: DISTRIBUTION OF GOODS IN INNER PACKAGINGS [draft regulation 7(4)]

There will be an exemption for distribution of small quantities of dangerous goods in inner packagings to retailers or users, provided they initially meet the requirements for limited quantities (excluding those of Classes 1 and 7) from local distribution depots or users and from retailers to end users.

RAIL: PLACARDS AND PLATE MARKINGS FOR PIGGYBACK TRANSPORT [draft regulation 22(9)]

The present provisions relating to wagon marking for piggyback transport (wagons carry vehicles loaded with dangerous goods) [CDGRail Sch 5, Paras 6 and 9]

Derogations relating to road carriage of Class 7 Radioactive Materials will be dealt with by the Department for Transport.

Proposed Regulations for the Carriage of Dangerous Goods and Use of Transportable Pressure Equipment (Other than Radioactive Materials) - alignment with RID/ADR

Regulatory Impact Assessment (pre-consultation)

PURPOSE AND INTENDED EFFECT

Issue

1. Great Britain (GB) is required to harmonise regulations concerning the carriage of dangerous goods across the European Union (EU) boundaries according to the technical specifications hereafter referred to as RID/ADR.

Risk assessment

2. RID/ADR harmonisation as implemented in GB regulation covers the risks associated with the carriage of dangerous goods. This section reports estimates of the overall risks associated with the carriage of dangerous goods in GB. It should be noted that these proposed regulations, in implementing amendments to RID/ADR, are expected to impact only on specific areas of the overall risk from the transport of dangerous goods. The effect of the proposed regulations is discussed in the benefits section below.

3. Table 1 presents estimates of the risk of fatalities arising from the carriage of the most commonly carried dangerous goods, as found by the Advisory Committee on Dangerous Substances⁸. We have supplemented this information with the estimated likelihood of an event causing serious injury, based on the world-wide accident record from the same source. This suggests a ratio of fatalities to injuries of roughly 1:3 for road traffic incidents not involving explosives, and 1:25 for rail traffic incidents, and any incident involving explosives⁹.

4. To uprate the figures to 2002, we assume the trend in overall risk follows that of the trend in reported dangerous occurrences and fire brigade call outs. Both these sets of statistics have seen a 40% fall between 1990/1991 and 1995 (we assume no further fall since then). We therefore reduce the expected number of fatalities and injuries with respect to road (and explosives by any mode) by 40%. We leave the injuries predicted for rail (excluding explosives) unchanged, given the nature of the industry.

⁸ "Major hazard aspects of the transport of dangerous substances", HSC, HMSO, 1991

⁹ The large difference in these ratios reflects the nature of road traffic incidents, in which widespread injuries are generally more limited than rail, but fatalities amongst road users are relatively more common.

Table 1: Estimated injury risk for GB carriage of dangerous goods

	Expected number of injury events per year, 1991		Estimated expected number of injury events per year, 2002	
	Fatalities	Injuries	Fatalities	Injuries
Transport by Road	1.90	5.70	1.14	3.42
Transport by Rail	0.40	10.00	0.40	10.00
Transport of Explosives by Road or Rail	0.02	0.50	0.01	0.30
TOTAL	2.32	16.20	1.55	13.72

5. There are many other costs incurred with an incident involving dangerous goods. Any non-injury event normally requires attendance by the emergency services, whether or not the goods actually escape or combust. If the goods do escape or combust, clean up costs and disruption can be considerable. We assume that costs are likely to vary between £10,000 and £100,000 depending on the nature of the incident. Existing figures suggest we might expect 500 emergency service call-outs each year of which 100 (allowing for some under-reporting) might be notifiable under Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR). We assume that fire brigade call-outs requiring attendance but little action cost £1,000 in manpower and resources; those incidents notifiable under RIDDOR cost £10,000 including any damage to the conveying vehicle; and a subsample of 5% of 'RIDDOR incidents' (ie a total of five each year) involving escape or combustion of a dangerous goods cost £100,000 in mitigation, vehicle damage, lost product, disruption and environmental damage.

6. An estimate of the annual cost in injuries and fatalities, and in damage and remedial action is presented in Table 2. To calculate the cost of injuries, we use Department for Transport's (DfT) valuations based on the willingness to pay to avoid a marginal increase in risk to the public, adjusted by HSE to allow for additional workplace (or carriage) related detriments. We make no explicit correction to this figure to allow for catastrophic incidents resulting in large scale loss of life, although it should be noted that this risk is a large component of the total risk set out in Table 2. The valuations we use are £1.2 million for the prevention of a fatality (in 2002 prices), and £1,500 for injury prevention, this latter figure being a combination of the likelihood of workplace (or carriage) injuries of varying severity and their associated loss of welfare cost¹⁰.

7. The figures above give a total annual cost of £3.7 million, being the maximum quantified cost of all - except the very worst - accidents involving the carriage of dangerous goods. Table 2 also displays total recurring costs over ten years, which is £34 million, rounded to two significant figures. Some areas of the cost (potential benefits if the accidents are prevented) of accidents involving the carriage of dangerous goods remain unquantified. These include loss of cargo, the cost of the potential of widespread damage to the environment, and any damage concerning road

¹⁰ Based on standard unit costs to society from "The costs to Britain of workplace accidents and work-related ill-health in 1995/96" - Davies-Teasdale.

or rail infrastructure, although we believe that the most significant areas of cost have been quantified.

8. The safety benefits of RID/ADR will impact on all elements of this loss, although the package of changes outlined below would only be expected to have a marginal effect. This is discussed in the comparison of costs and benefits section below.

Table 2: Estimated annual detriment from the carriage of dangerous substances

	Annual detriment (£)	Present value cost over ten years (£)
Fatalities	£1,860,000	£17,040,000
Injuries	£20,600	£190,000
Emergency call-outs etc	£1,850,000	£16,950,000
TOTAL	£3,730,600	£34,180,000

Objectives

9. The objective is to consolidate existing carriage-related regulations into a single set of Regulations that will list the duties and make a direct reference to RID/ADR for all other information, such as the dangerous goods list and packaging requirements. The Regulations will also bring in those requirements of the Transportable Pressure Equipment Directive that have yet to be implemented.

Options considered

10. There were two possible options. Firstly, to continue with the present system and amend the existing regulations every two years in line with the revisions to RID/ADR. This would be technically complex as there are several sets of regulations and Approved Documents, which might lead to confusion and compromise health and safety. It could also cause difficulty with enforcement.

11. The second option was to have a single set of goal-setting Regulations containing duties that align with, and reference, RID/ADR for technical detail. Where there were differences from RID/ADR (eg as a result of a derogation or to carry forward requirements from existing legislation on tanks and transportable pressure receptacles) these provisions would be contained within the Regulations or in Schedules to them. This is the option taken under these proposals. It was considered that this would aid duty holders in determining what the Regulations require and also simplify enforcement.

12. Our original intention was to put in place regulations by the end of 2002 that implemented the 2001 European Commission amending Directives, referencing the 2001 texts of the RID/ADR agreements. But because of the complexities involved, we were unable to meet this deadline and with ministerial approval we have rolled together implementation of the 2001 and 2003 amending Directives and are directly referencing the 2003 texts of the agreements.

13. Information about the effect of these proposals on industry practice was obtained through informal consultation with industry associations and company representatives. Information about training requirements was obtained from a training provider. This Regulatory Impact Assessment (RIA) also uses estimates of numbers of vehicles and associated costs from previous RIA analysis of RID/ADR changes.

BENEFITS

Health and safety benefits

14. A major cost is the increase in shell-thickness for tanks. An industry consultant has expressed the view that this could bring significant benefit. This person cited several cases of tankers overturning and the shell rupturing. In his view, the loss of payload would have been prevented in some instances for a tank with the increased shell thickness. This could lead to considerable savings in clean up costs and the reduced chance of any safety risk or environmental damage being caused by the escaped substance. It is not possible to quantify the extent to which the increased shell thickness will prevent accidents or limit their consequences. It is therefore not possible to estimate safety benefits in monetary terms.

Other benefits

15. Another benefit that should be viewed as an operational cost saving relates to the increase in axle weight limits from 38.5 tonnes to 44 tonnes that was introduced two years earlier under general GB road traffic legislation. These are estimated to equal £2.8 billion in present terms over the appraisal period (paragraphs 40-41 provide more details on these operational cost savings).

16. As noted below, HSE's preferred proposals will lead to cost savings through a simplification and rationalisation of some administrative requirements of RID/ADR. For example, being able to use electronic forms of documentation may lead to particular cost savings. There are also likely to be cost savings from bringing together many of the existing requirements covering the transport of dangerous goods into a single set of regulations. This will simplify the process of familiarisation with the requirements of RID/ADR. It has not been possible to quantify the extent of these cost savings in monetary terms.

COSTS

Business sectors affected

17. Regulations implementing RID/ADR potentially affect all industries involved in the movement of dangerous goods, including suppliers of these goods, those transporting the goods (largely haulage firms) and those receiving goods (consignees). The principal suppliers affected will be chemical and explosive manufacturers and the oil industry. Many wholesale distributors of chemicals who load quantities of dangerous goods above the minimum amounts are also potentially affected by RID/ADR requirements.

18. Costs under various headings are considered below. The headings refer to the generally distinct areas of RID/ADR, namely construction, certification and testing, and other operational costs. Costs by business sector are also discussed below.

Familiarisation, and changes to the regime

19. Industry will need to become familiar with the revised requirements. Familiarisation costs are likely to be low as the Regulations will bring together many existing requirements into a single set (at present spread over a number of statutory requirements), as well as bring in the remaining requirements of TPED covering new pressure tanks, pressure drums and bundles of cylinders. Balanced against these small familiarisation costs are several changes to the regime which should simplify and

rationalise administrative requirements and lead to cost savings. A few of the other changes are listed below.

- ◆ Introduction of tank codes into RID/ADR will rationalise the tank selection procedure for consignors/operators. The administrative procedure of obtaining a B3 certificate (confirming suitability for purpose) will also be simplified.
- ◆ Electronic methods of providing documentation will now be permitted by RID/ADR providing certain conditions are met.
- ◆ A form will now be included in RID/ADR which can be used as a combined dangerous goods declaration and container packing certificates for multimodal carriage.
- ◆ The packaging requirements in RID/ADR have been made clearer. Some new definitions have been introduced, primarily to clarify a consignee's duties in relation to safety obligations.

Alignment with ADR road tank construction requirements and initial certification

20. From 1 July 2003 all gas and non-gas tanks will have to be built to ADR construction requirements whether operating domestically or internationally. This will affect different sectors of the dangerous goods industry in various ways, depending on the type of tank used in the sector and how often these tanks are used for international carriage.

21. The principal issues affecting domestic carriage are a new shell thickness requirement, and also new requirements to do with baffling of tanks of a specified (generally greater) thickness and providing compartments of a specified minimum volume. In addition new gas tanks (etc) fitted with safety valves must now be fitted with a bursting disc placed before the valve, and a pressure gauge (or similar) between the disc and the valve, in order to detect a leak or rupture. Finally, in terms of manufacture, a tank code reference must be inscribed onto the tank itself, or on a plate secured to the tank.

Semi-trailers and rigid petroleum tanks.

22. We have previously estimated that there are a total of around 11,500 semi-trailers used to carry dangerous goods in the 32.5 tonne plus class. This includes semi-trailers operated by road hauliers and also those owned and operated by the chemical industry. Including some smaller semi-trailers (for which we have less information) this would suggest a GB total of around 15,000 semi-trailers of all sizes. Semi-trailer tanks last typically for fifteen years, so we assume around 1,000 semi-trailer tanks are replaced each year at the present time.

23. The total size of the GB petroleum tanker fleet has been estimated by the UK Petroleum Industry Association (UKPIA) at around 3,500. The vast majority of these vehicles are rigid steel tankers in the 32.5 tonne plus class, and are not currently certified as being to ADR standard. Again, we assume that the tank lasts around fifteen years on average, so that some 230 new tanks are purchased each year.

24. The majority of semi-trailers and petroleum tanks are made of steel (although some semi-trailers are made of aluminium). We have been advised by specialist manufacturers that new rigid tanks able to operate to the maximum weight limits ie

those fitted with a baffle would require some 500 kg more steel than currently used. This should also be true of semi-trailers, and would lead to an additional material cost of around £1,300.

25. Research has suggested that the additional elements of the initial certification to ADR standard of new tanks will amount to some £1,000. This is lower than an estimate provided by a manufacturer of rigid tanks (see below) but we believe it is reasonable. We have also been advised that the new requirements relating to valves required for gas tanks (see para. 21) and the fitting of a metal plate will add a further £150 to costs. The total additional cost of a tank fully meeting ADR standards as compared to one which does not but which is of the same loaded weight will therefore be around £2,500. This represents some 3-5% of the cost of the new tank.

26. In terms of new tanks purchased each year, this would indicate total costs of $1,233 * £2,500 = £3$ million (rounded). This is an annual cost, as old tanks are continually replaced by ADR certified tanks. The ten year cost is £23 million in present terms, using standard government discounting procedures.

Rigid tanks (excluding carriage of petroleum)

27. In the 1996 RIA when the process of aligning domestic requirements with RID/ADR was started, we estimated that there was a total of around 6,000 non-petroleum rigid tankers in operation in GB, the majority of which carried fuel and gas oil. This was an approximate estimate based on information from industry sources, which we take to be current today. These tankers are mostly operated by specialist industries, for example supplying domestic oil, refuelling mobile work machinery or power facilities, or collecting waste. Some of these tanks may not carry goods currently classified as dangerous for carriage, although we believe the majority will be in scope of these proposals, as explored below. Given an average life of 15 years, this indicates that some 400 tanks will be replaced each year under normal replacement schedules.

28. Rigid tankers are usually made of mild steel. As a consequence of this, the industry contends that the move to ADR standards will have a more severe effect than for aluminium tanks. Since these tankers are generally smaller than 38 tonnes (typically 18 to 32 tonnes), the tanks are not weight limited under general GB road traffic legislation.

29. In terms of shell-thickness, one manufacturer estimates the ADR specifications will lead to a one-third increase in the amount of steel required for the shell. The manufacturer estimates that this increase in material, together with more stringent testing to ADR certification standards, would lead to an increase of some 10-15% onto the cost of a new steel tank. Tanks come in many sizes and may be top or bottom loading, but the average cost of a new tank at present, given the sizes of tank currently used, would be around £40,000. The increase is therefore equivalent to some £4,000 to £6,000 on the average cost of a tank.

30. This is a considerably higher estimate than the 3-5% we have established for larger tanks. Of the lower estimate of cost, some £2,500 relates to testing, and some £1,500 to materials. The material cost is consistent with estimates supplied by other manufacturers. Testing costs are higher. Initial tests required for ADR certification include radiographic and ultrasound testing (which has to be carried out under controlled conditions) and pressure testing, and these costs will vary depending on the nature of the tank. The £2,500 figure may also not be additional, compared to current

testing. Nevertheless, we apply the lower estimate of additional cost to newly purchased tanks used for carriage of dangerous goods.

31. The number of rigid tanks that will now need to satisfy ADR standards will be lower than the total numbers needing to be replaced, for two main reasons. Firstly, it is possible that the costs themselves may result in a greater propensity to re-mount existing tanks. Secondly, some tanks may be dedicated to carrying non-dangerous goods. The effect of remounting, if it is realised in practice, would be to reduce the numbers of new ADR standard tanks being purchased each year, although we cannot take account of this tendency at present.

32. We assume that three-quarters of the 400 tanks replaced each year will be built to ADR standards, suggesting industry costs of $300 * £4,000 = £1.2$ million. Assuming a constant replacement rate, ten year costs would be £9.4 million, which we round up to £10 million, given the uncertainty in the estimates.

Ongoing operating costs associated with ADR certified road tankers

33. Industry has maintained that the increase in shell-thickness will lead to a capacity loss compared to existing non ADR-certified tankers. However, this has to be interpreted with care. In the short term, increased shell thickness may have some practical effect. However, unless the tank is weight limited in the long run we would not expect any reduction in tank capacity from the increased shell thickness.

34. This is because tanks are available in a range of sizes, and we would expect that the decision over the size of the ADR tank to be purchased in the future would take account of its capacity. The new tank would be more expensive, but we have already accounted for this cost. In the same way that the new general vehicle weight limits make no operational difference for lower than maximum weight tanks, then the capacity change also makes no operational difference.

35. Another way of looking at this issue is to suppose that the new ADR standard tanks were constructed to the same internal capacity as the ones they were replacing, instead of the weight limits. In this case, there is no long term operational cost associated with operating the new tankers, once the initial cost has been taken into account. The only remaining cost is where the trailer has greater wear because of the increased weight at a given capacity. This cost will be relatively small.

36. The exception is where all road vehicles, including tanks, are affected by the axle weight limit under general GB road traffic legislation. This has recently been increased from 38 tonnes to 44 tonnes. Many, though not all, semi-trailers would be affected. Under ADR, the internal capacity of a weight limited tank would be lower than that of a non-ADR tank, since some additional weight would be taken by the tank, rather than the payload. However, the rise in weight limits will have resulted in a significant benefit to all hauliers. Although this change is not attributable to ADR, it has been made to align GB domestic regulations with those in operation in the rest of Europe, the 44 tonne maximum being set by an EU Directive.

37. For new ADR certified semi-trailers and petroleum tanks operating to the new weight limits, the 500 kg of extra steel required would represent an equivalent loss in the total volume of product that could be carried. Industry advisers have estimated that the total operating costs associated with 1 kg of petroleum product works out to be approximately £10 per year. Costs are higher to hauliers carrying different products, and another industry specialist has suggested a figure of £20 per kg per year. Compared to existing tankers under the new general weight limits, the loss in

maximum capacity represents a cost to the industry of around £5,000 per year for each petroleum tanker that is affected, and £10,000 for other tanks.

38. If half of all tanks (other than small rigid tanks) are affected in this way - ie are in fact weight limited - this would suggest additional *cumulative* costs of:

$$[233 * £5,000] + [1,000 * £10,000] * \frac{1}{2} = £5.6 \text{ million each year.}$$

39. These costs are cumulative, in the sense that the loss is re-incurred each year, and builds up as tankers are replaced each year with new ones built to ADR standards. The annual loss at the ten year point - relating to all the tanks replaced in the previous nine years - is therefore $9 * £5.6 \text{ million} = £50 \text{ million}$ (rounded). Total costs over a ten year period are £175 million in discounted terms.

40. The losses represent the cost of not being able to replace existing tanks with new non-ADR certified ones at the new weight limit of 44 tonnes. In this sense they are 'opportunity costs'. However, the increase in axle weight limits from 38.5 tonnes to 44 tonnes has already been in place for two years, and we would expect that around half of all new non-ADR certified semi-trailers and petroleum tanks are now built to this weight (since we have assumed that half of existing tanks are weight limited). Using the same yearly operating cost/kg figures as above, this means that the industry will now be benefiting (and will continue to benefit) by a cumulative amount:

$$\{ [233 * £10 * 5,500 \text{ kg}] + [1,000 * £20 * 5,500 \text{ kg}] \} * \frac{1}{2} \text{ (trailers weight limited)}$$
$$= £60 \text{ million each year (cumulative)}$$

41. These are significant operating gains, which are equal to £2.8 billion in present terms over the appraisal period. HSE believes it is appropriate to place this future operational gain against the operational loss of around £175 million that arises from satisfying ADR requirements, since both are the result of European agreement.

42. Both industry specialists and industry manufacturers have highlighted the fact that tank operators will have a strong incentive to re-mount their existing non-ADR certified tanks - especially ones constructed to the new weight limits. This would, of course, limit costs. However, it would also reduce safety benefits. Our cost estimates are based on the premise that there will be no increase in the propensity to re-mount existing tanks.

43. Industry consultants have also pointed to the significant gains that could be made if there is a general move in the direction of aluminium tanks rather than mild steel. As a typical example, an aluminium petroleum tank constructed to new weight limits would be able to carry some 600 kg more product than an equivalent steel tank, a saving equivalent to some £6,000 each year. This saving would offset the losses from greater shell thickness and baffling thickness (or numbers). In absolute terms, it would repay the additional material costs of the tank within a year, and the whole cost of the tank itself within ten years.

44. However, the haulage industry has expressed reluctance to move to using aluminium tanks. This is partly on structural grounds, although new aluminium tanks will be constructed to a greater shell thickness than existing steel tanks. Part of the operational gains will not be realised if the aluminium tanks do in fact have a slightly shorter life, or require greater expenditure to achieve the same life span as a steel tank, however industry advisers suggest this is not necessarily the case. We cannot anticipate any such change in our costings, but would welcome more information.

Alignment with RID/ADR and TPED inspection regimes

45. Currently, the ongoing inspection of existing road and rail tanks is undertaken by a competent person, who specifies conditions and frequency of the testing depending on the type of tank and load carried. Inspections are carried out either by an in-service specialist, or on a 'third party' basis (as with 'RID/ADR inspection', this is again usually done in conjunction with an insurance company). All GB operators of tanks will therefore have to become familiar with the new requirements and consider if there are any implications for their own testing regimes.

46. In order for operators to become familiar with the proposed scheme, we allow a total of $\frac{1}{2}$ day's management time to the estimated 800-1,000 road tanker operators, 130 to 180 tank-container operators and ten rail tanker operators in the industry. This suggests one-off familiarisation costs of around £100,000.

47. Ongoing inspection costs are currently met in full by the tank operators. In most cases under the proposed scheme, the first full inspection of new tanks would be required some five to eight years after initial inspection. There are differing views in the industry over whether compliance with the requirements of RID/ADR will result in a greater frequency of inspection. Views ranged from no increase in frequency, to an increase of double the current amount. We assume a 50% increase in inspection frequency, which would be commensurate with tanks being inspected typically every four years, compared with the current six years.

48. RID/ADR standards may require hydraulic pressure testing ('leakproofness' testing) to be done at more frequent intervals than is currently undertaken by some operators. Currently, leakproofness testing is generally undertaken during the periodic inspection of tanks as deemed necessary by the competent person appointed to carry out inspection. RID/ADR would require this to be "normally" undertaken in the course of inspection. However, alternative methods of inspection may be acceptable under RID/ADR, and industry contacts have noted a general move away from leakproofness testing within the industry. We require more information before estimating the scale of these additional costs, if any are in fact incurred.

49. Manufacturers have advised that the functional full economic costs of an inspection in general will be around £500, including an allowance for lost productivity whilst the tank is off the road. Given a global total of around 20,000 tanks generally dedicated to carrying dangerous goods, this would suggest an additional expenditure of £2.7 million over a ten year period, or £1.9 million discounted to current values.

Tank containers and portable tanks

50. UN fibre reinforced plastic tank containers have been introduced into RID/ADR. These are not widely used in GB, and industry has confirmed that there will be no cost or benefit considerations at present from this change, although there may well be some benefit from increased flexibility in future.

51. UN portable tanks will now be able to be used for any mode of transport (including sea transport). We have been advised by industry specialists that there are no major implications of this change at present, although there may be a positive benefit from greater flexibility in the future.

UN certified multiple-element gas container (MEGC)

52. Multiple-element gas containers will now come under scope of the regulations. This will mean compliance with the requirement to use a formal approval body

scheme for initial and periodic inspections (rather than the existing informal approved person scheme). There will also be additional placarding requirement for MEGCs where there are multiple compartments.

53. According to industry sources there are only two MEGCs being operated by UK companies, both of which are outside the UK. Therefore the costs to Britain of MEGCs coming under scope are likely to be negligible.

Minimum Vacuum Rating for Rail Tanks

54. A new requirement has been added that shells designed to be equipped with vacuum valves shall be able to withstand an external differential pressure of not less than 0.21 bar. For shells not designed with vacuum valves this value shall not be less than 0.4 bar.

55. In Britain tank wagons are designed to be fitted with vacuum valves but are not generally fitted with vacuum support rings. To meet the 0.21 bar vacuum requirements on a typical UK wagon design would need to fit two additional internal stiffening rings. Industry estimates that fitting these to a new build wagon would add about £1,000 to the cost of the wagon. The rings would add about 400kg to the weight of the wagon, which in many cases would reduce the payload by the same amount. Assuming a freight cost of £5 per tonne and an average utilisation of three loaded trips per week, the annual cost of the additional weight would be £312 per wagon per annum. The current UK requirement for new tank wagons is estimated at 50 wagons per year. The total policy cost would therefore be approximately £50,000 + £15,600 = £65,600 per year.

56. Although the new transitional measures would permit the continued use of existing tanks and those built before 1 January 2003, tanks wagons built after this date would need to meet these new requirements unless RID were amended or a derogation sought.

Alignment with RID rail tank wagon etc requirements (other than inspection)

57. Rail tank wagons have historically been constructed close to RID standards. For example, RID minimum shell thickness requirements are currently met due to the nature of the mode of transport involved. In addition, rail tanks have very long operating lives. Of the 4,166 registered rail tankers in 1996, 1,768 were in long-term storage and none were built during that year. Since it is almost certain that any new build after 1999 would have met RID standards, we do not expect any additional costs to rail tank manufacturers or operators.

58. RID now requires placards at each end as well as both sides of inter modal tanks or containers being transported by rail. Around 5% (at most) of all rail goods movement are thought to involve dangerous goods. This would indicate a total of around 2 million train miles of carriage, representing something in the order of 10,000 train movements involving dangerous goods, assuming an average journey length of 200 miles. If we further assume each tank or container makes 100 journeys per year, this suggests further placarding would be required for around a thousand trains, involving containers carrying dangerous goods of various numbers and types.

59. Actual costs will depend on the number of tanks or containers involved. An upper cost of re-placarding would be around £1,000 for each train. This suggests that one-off costs will be less than £1 million, and recurring costs less than £100,000. Costs could be significantly less, since some train movements will consist of one tank

or container. We carry forward a cost of £1 million in present terms into the ten year totals, recognising that this is a very approximate estimate.

60. A new change to RID allows either reflectorised or non-reflectorised plates to be used. This will result in some nominal savings to rail carriers in certain circumstances.

RID/ADR placarding, marking and other operational issues

Emergency Action Codes/Emergency Telephone Number (EAC/ETN)

61. The current GB requirement to display hazard warning panels which include an EAC or an EAC & ETN may cease to be mandatory, and consignors may in future have the option of using the alternative Hazard Identification Number (HIN) system that is mandatory for international transport.

Intermediate bulk containers (IBCs)

62. Under RID/ADR, any IBC (whether carried by rail or not) of more than 450 litres capacity will need to be marked and labelled on two opposite sides. This requirement will affect almost all metal or composite IBCs used for carrying dangerous goods. The industry has previously advised there are around 200,000 composite and metal IBCs in use at any one time. Assuming half are used to carry dangerous goods, and applying a unit cost of £50, this would suggest initial costs of around £5 million, and annual recurring costs of around £500,000 thereafter. Total present value costs over ten years would be around £8 million.

Hazard labels

63. All hazard labels, whether primary or secondary, will now have to show the class number in the bottom corner. Hazard labels generally have a short life because of wear and tear. Industry will incur some cost if it has to abandon existing stocks of labels. However there has been an exemption in force since 1.7.01 allowing industry to start using the 'new' subsidiary hazard labels, so presumably not too much old stock will be left. We are therefore expecting any changes to do with existing (rather than additional) labelling to be small.

64. Orientation labels on certain (liquid) packages will now be mandatory. Applying a nominal cost of £2 for two sticky labels to 10% of the total population of IBCs in domestic use (around 15 million) suggests costs of £3 million. This cost will be re-incurred on a yearly basis, if the labelling lasts on average for one year. Total costs over ten years would be in the region of £20 million in present terms, although this is a very approximate estimate.

UN 1202 (Gas oil, diesel etc) - differences in scope under the international agreements

65. In line with requirements of RID/ADR, substance UN 1202 will be in scope of dangerous goods legislation at a flashpoint of less than 100°C. Compounds affected include gas oil, diesel fuel and light heating oil. Current domestic legislation aligns with the UN Recommendations which has a flashpoint at less than 61°C.

66. Suppliers of petroleum products are potentially affected by this change. Firstly, oil companies supplying petroleum retailers (either their own or others) will also supply diesel fuel for use in motor vehicles. The UKPIA has advised that in the vast majority of cases, the delivery vehicle will be carrying a mixed load of petroleum

and diesel in a tanker already suitable for the lower flashpoint compound. Since there are very few cases where a delivery consisting solely of diesel is made, any additional costs will be very limited.

67. The second area of the industry affected is in the supply of gas oil, fuel oil and heating oil, principally to commercial concerns (for example for use in machinery or electrical generators). This is done by specialist suppliers, predominately using the smaller rigid steel tankers identified above.

Petroleum industry

68. The UKPIA have expressed an informal view that there are very few existing tanks not constructed to ADR standards. This is because the vast majority of carriers also carry kerosene in the same load as diesel oil, and in any case all tanks are compliant with current regulations to enable the consignment of dangerous substances (the operator would be at a commercial disadvantage if this is not the case). As with petroleum retailers, we are therefore expecting no (or very limited) costs in meeting ADR design requirements.

69. However, suppliers, general freight transporters and the construction (and utility) industry as a whole are likely to be affected by operational changes (the latter two industries routinely dispense their own diesel fuel for use in road vehicles or construction work equipment).

Road Haulage industry

70. The Freight Transport Association (FTA) has pointed to two additional issues. More drivers would scope into the requirement to have ADR certificates, and more companies would now have to appoint a Dangerous Goods Safety Adviser (DGSA). In addition, the flashpoint for UN 1202 of up to 100°C will mean that more drivers would be required to hold vocational training certificates and more companies will need to appoint DGSAs than currently.

71. The number of road haulage companies is around 20,000. We have previously estimated the number of distributors already involved in the carriage of dangerous goods at around 6,000 (this was considered a high estimate, although a small proportion of these would be principally road tanker operators). The FTA has advised that many (we assume one-third) of the remaining 14,000 companies would now need to employ DGSAs.

72. The RIA for the Dangerous Goods Safety Advisers Directive estimated that the typical cost of employing an outside DGSA would be around £2,000 per year in current prices. However, we would expect costs concerning standard operations with just one substance to be significantly lower, and we use a figure of £800 (broadly representing one day's consultant's time on a yearly basis). This suggests an ongoing annual cost to the road haulage companies of $14,000 * 1/3 * £800 = £3.7$ million. Total costs over ten years are estimated at £29 million in present values.

73. The FTA highlighted further costs to construction and plant hire companies, which are now examined in more detail. Apart from these costs, some (general) road haulage companies may consign diesel for use by their own vehicles, but we would require more details to estimate costs.

Construction and plant hire industries

74. The construction industry - including the plant hire industry - has also provided information about costs. Three of the largest GB construction companies were contacted, two of whom are involved in road maintenance operations and other mobile construction sites. These companies reported that they very rarely consigned diesel between sites, although this could happen on some large road projects. Diesel is consigned to the site either by the plant hire company, or (if the plant is owned) by a diesel supplier. The companies reported that only a very few large operators consigned their own diesel. From the information supplied, grossing up the reported number of diesel tanks (the vast majority of which are rigid trailers) owned and used by construction companies gives a GB figure of around 100 tanks.

75. In terms of construction requirements and hazard labelling, costs to these construction companies are subsumed in our overall total of 6,000 rigid tanks estimated in the first section. Simply applying these costs to 100 existing tanks would suggest an additional recurring cost of around £25,000 as new tanks are replaced to ADR standard, and a further £10,000 for placarding etc. Training costs are discussed below, and would total around £15,000 for drivers of these tanks.

76. The association representing the vast majority of GB plant hire companies expects much more significant costs. The Association reports their membership total of 1,150 plant hire companies represents some 80% of the GB total, suggesting a total industry figure of 1,400. The fuel for the equipment hired out by these companies is generally delivered in small quantities in towed bowsers or portable bundled tanks. It is therefore unlikely that costs relating to these tanks are already covered in our estimates. The vast majority of the diesel transported is outside the scope of current regulations.

77. These tanks will now have to be replaced with ADR compliant tanks, and the drivers trained. The Association reports that most of its members are small and medium size enterprises. For simplicity we assume two tanks per company *on average*, giving a total of around 3,000 small diesel tanks needing replacement. From information already supplied, we would expect the cost of a new small tank to be around £10,000, however the replacement cost will be the loss in value of the existing tank, which we take to be £5,000. This indicates total initial costs of around £30 million, incurred at the time these proposals come into force.

78. Drivers of the vehicles towing these tanks will also need to be trained. Training in the ADR requirements relating to a specific substance (rather than a range of substances) has been examined in previous RIAs, and we have been advised that this should take no longer than one day at a full economic cost (including fees) of around £150. Assuming one driver per vehicle for each trailer (and one tank per trailer) suggests additional training costs of $3000 * £150 = £450,000$ initially and around £45,000 annually thereafter.

79. In addition, using the estimates above, placarding and other operational costs would total around £500,000 initially. Also from above, the formal appointment and use of Dangerous Goods Safety Advisers would cost each of the 1,400 companies affected some £800 each year, giving a recurring cost of around £1 million. Total present value costs to this industry are therefore estimated at around £40 million over ten years.

80. Finally utility companies (especially electricity companies) undertake the routine refuelling of portable generators. Costs on a unit basis will be similar to those incurred by diesel suppliers (if the tank is large) or plant hire companies (if the tank is small). A total of several hundred vehicles used by utility companies for this purpose would suggest additional costs in the order of £5 million to £10 million. We would welcome more information in order to be able to estimate costs more accurately.

Costs to the explosives industry

81. The requirement for double-manning of explosives vehicles has been removed from RID/ADR. The Committee of Experts removed this requirement as they considered it was no longer justified in the light of other improvements to safety. However GB authorities believe the requirement is still necessary for reasons of national security and will be applying a derogation under article 5.1 of the ADR directive which allows Member States to regulate/prohibit transport for reasons other than safety. Double-manning of explosives vehicles is current practice for domestic transport and retaining the requirement will not impose any additional costs on industry.

82. Several other requirements covering explosives that are out of scope of RID/ADR are being carried forward in these proposals (eg carriage by private individuals) or being retained in other explosives legislation (eg security labelling). Some of these former requirements have been simplified which may lead to minor benefits to the industry.

Incident/accident reporting under RID/ADR

83. This is a new requirement that will be in addition to, and separate from, the existing system under the RIDDOR Regulations. It will potentially 'catch' everybody involved in transporting dangerous goods. It is difficult to accurately estimate the costs of this requirement, but it is expected that they will be negligible.

Compliance costs for a 'typical' business

84. These are widely variable, depending on the nature of the company affected. Unit costs to different types of companies are generally detailed in the text.

Total costs to industry

85. The total policy costs to industry are estimated at £360 million over ten years in present value terms using a discount rate of 3.5%. Of this, £57 million is incurred in the first year after the proposals come into force. The total policy cost to industry of the reclassification of diesel and other fuel oils is estimated at around £75 million over ten years in present value terms.

Table 3 : Total costs to industry (£m)

Requirement	Initial costs	Ten year discounted cost
Replacement Tankers		
- Semi Trailers & Petroleum	3.1	27
- Other Rigid tanks	1.2	10
On-going operational costs	0	203

Certification/inspection	0.1	2
Re-placarding rail tanks	1	1
Placarding IBCs	5	9
Hazard labels	3	26
<i>Reclassification of diesel and gas oil</i>		
- Haulage industry	3.7	32
- Plant Hire industry	32	43
- Electricity and utility industry	~7.5	~7.5
TOTAL COST TO INDUSTRY	57	360

Impact on small and medium sized businesses

86. The proposals relating to increased shell thickness of tanks are unlikely to result in any disproportionate impact on SMEs. The increase in the cost of the tank due to the new requirements would typically only be a small proportion of the cost of a new tank. Total costs of the requirement would be directly related to the size of company and the number of tanks affected.

87. The proposals relating to the reclassification of diesel and other fuel oils are likely to result in some disproportionate impact on SMEs. Previous consultation has found that the requirement for around 5,500 haulage and plant hire firms (virtually all of which will be SMEs) to appoint a Dangerous Goods Safety Advisor at a cost of around £800 would impact disproportionately on the smaller firms due to the fixed nature of the cost regardless of firm size. Small firms involved in the hire of industrial plant may also incur disproportionate costs if they were required to purchase a new tank to transport diesel that would only be used occasionally, although HSE believe that this situation would be unlikely.

88. HSE would welcome comments from SMEs on the cost implications of the proposals.

Competition assessment

89. The haulage and plant hire industries are fragmented, with many small, medium and large firms operating in the market. For the plant hire industry, the nature of the equipment supplied may mean that in some cases there may be less competition in certain products or local geographical markets. The majority of the costs of these proposals are directly related to the size of the firm affected, and would not affect small firms disproportionately. The increased cost of a new ADR compliant tank means that new firms have to incur higher set-up costs that existing firms do not have to meet for a number of years. This is unlikely to affect competition as the increased costs are only a small proportion of the total cost of the tank. Firms purchasing new tanks would also be able to take advantage of the recent increase in weight limits to obtain a tank with increased capacity.

90. The reclassification of diesel oil is unlikely to lead to a sufficient number of plant-hire firms leaving the industry, or ceasing to rent certain types of equipment, to affect competition. HSE would welcome comments on the competition effects of the proposals. Overall a detailed assessment is not thought to be necessary at this stage.

Costs to HSE

92. HSE has incurred costs in developing the regulatory package, although these can be regarded as sunk costs. It is not anticipated that there will be any significant increase in enforcement costs to HSE as a result of the proposals.

Other costs

93. There are no other costs associated with the proposals.

Total costs to society

94. These are the same as the costs to industry.

Environmental impacts

95. The proposals will have a positive environmental impact. Many dangerous goods carried in existing tanks can cause significant environmental damage following a spillage. The increase in tanker shell thickness may in some instances prevent the tanker rupturing and the spillage of the payload.

Balance of costs and benefits

96. The total costs to industry are estimated at £360 million over ten years in present value terms. Of this figure approximately £200 million relates to the ongoing operating costs associated with the small capacity loss compared to existing non-ADR tanks. HSE believes that this cost can reasonably be set against the £2.8 billion operational benefit to industry from the recent increase in the maximum axle weight limit from 38 tonnes to 44 tonnes.

97. The remaining cost of £160 million, can be seen to be significantly higher than the total risk from the transport of dangerous goods estimated at £34 million over ten years. The proposals are only likely to result in a small reduction in this total risk figure. The quantified risk figure excludes certain elements of cost relating incidents involving dangerous goods such as loss of payload and possible disruption and environmental damage which in certain cases may be significant. The quantified figure also does not include any benefit that may accrue from the prevention of any very serious but rare accidents involving dangerous goods. Despite these two exclusions total costs will exceed safety benefits. Rationalisation and simplification of the regime will lead to administrative benefits although these are likely to be small in comparison to total costs.

Uncertainties

98. The preliminary figures in this RIA are based on informal consultation with trade associations and industry specialists. HSE would welcome more information on the cost and benefit implications of the proposals. Uncertainties are as detailed in the text.

Arrangements for monitoring and evaluation

99. On-going monitoring of the impact of these regulations will be performed via a number of existing enforcement and industry liaison bodies.

RESPONSE FORM

**Carriage of Dangerous Goods and Use of Transportable Pressure Equipment
Regulations 200x**

We would like you to tell us what you think about the proposals set out in this consultative document. You may wish to use this response form; please complete clearly, adding extra sheets if necessary.

Name of organisation or company	
Your name	
Address	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
Telephone number	
email address	

Which best describes your organisation's role?	<input checked="" type="checkbox"/>	Govt Department	
		Other Govt organization	
		LA Association	
		Small firm / self-employed association	
		Employee organisation / trade association	
		Trade Union	
		Training provider	
		Consultancy	
		Private company	
		Other(*)	
		*Please specify – e.g. DGSA:	

If you are a employers, how many employees are there in your organisation? If you are a trade association, how many companies do you represent?	<input checked="" type="checkbox"/>			
		0 – 50	51 – 200	> 200

Is your organisation involved in the carriage of dangerous goods by road or rail?	<input checked="" type="checkbox"/>			
		Road	Rail	Both

Is your organisation involved in the domestic or international carriage of dangerous goods?	<input checked="" type="checkbox"/>			
		Domestic	International	Both

1	Do you agree with the general approach to implementation?	<input checked="" type="checkbox"/> <table border="1" data-bbox="983 277 1136 376"><tr><th>YES</th><th>NO</th></tr><tr><td></td><td></td></tr></table> <p data-bbox="639 409 1481 443">If no, please say why:</p> <div data-bbox="639 443 1481 891" style="border: 1px solid black; height: 200px;"></div>	YES	NO		
YES	NO					

2	Do you think we have placed the right duties on the right people? (paragraphs 29 to 31)	<input checked="" type="checkbox"/> <table border="1" data-bbox="983 1037 1136 1135"><tr><th>YES</th><th>NO</th></tr><tr><td></td><td></td></tr></table> <p data-bbox="639 1169 1481 1202">If no, please say why:</p> <div data-bbox="639 1202 1481 1650" style="border: 1px solid black; height: 200px;"></div>	YES	NO		
YES	NO					

3	<p>Direct referencing of RID/ADR introduces a number of changes to existing requirements; some of these have been highlighted in (paragraphs 41 to 51) To what extent do these benefit or hinder your operations? Are there others, not highlighted, that cause you concern?</p>	<input checked="" type="checkbox"/>	<table border="1"> <tr> <td>YES</td> <td>NO</td> </tr> <tr> <td style="height: 20px;"></td> <td style="height: 20px;"></td> </tr> </table> <p>Please comment:</p> <div style="border: 1px solid black; height: 150px; width: 100%;"></div>	YES	NO		
YES	NO						

4	<p>What is your view on whether we should continue to maintain the mandatory EAC system for journeys taking place wholly within Great Britain or offer a choice for domestic carriage of either the EAC system or the HIN system? (paragraphs 52-54)</p>	<input checked="" type="checkbox"/>	<table border="1"> <tr> <td>HIN</td> <td>EAC</td> </tr> <tr> <td style="height: 20px;"></td> <td style="height: 20px;"></td> </tr> </table> <p>Please comment:</p> <div style="border: 1px solid black; height: 150px; width: 100%;"></div>	HIN	EAC		
HIN	EAC						

5	<p>Are you happy with our proposals for administering ADR accident reporting requirements separately from RIDDOR requirements? (paragraphs. 55 to 57)</p>	<input checked="" type="checkbox"/>	<table border="1"> <tr> <td>YES</td> <td>NO</td> </tr> <tr> <td style="height: 20px;"></td> <td style="height: 20px;"></td> </tr> </table>	YES	NO		
YES	NO						

		<p>If no, please say why:</p> <div style="border: 1px solid black; height: 200px; width: 100%;"></div>
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6	<p>Are you content with the standards already approved by HSE for pressure receptacles and those DfT propose to approve for tanks? Are there other standards you would like HSE or DfT to consider for approval? (paragraphs 58 to 61)</p>	<p><input checked="" type="checkbox"/></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;">YES</td> <td style="text-align: center;">NO</td> </tr> <tr> <td style="height: 20px;"></td> <td style="height: 20px;"></td> </tr> </table> <p>If no, please say why:</p> <div style="border: 1px solid black; height: 150px; width: 100%;"></div>	YES	NO		
YES	NO					

7	<p>Do you agree with the proposal to phase out by 1 July 2005 the competent person periodic inspection regime in favour of inspections by bodies appointed by the competent authority? (paragraphs 65 to 68)</p>	<p><input checked="" type="checkbox"/></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;">YES</td> <td style="text-align: center;">NO</td> </tr> <tr> <td style="height: 100px;"></td> <td style="height: 100px;"></td> </tr> </table>	YES	NO		
YES	NO					

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8	<p>Are you happy with our proposals to amend Schedule 2 of the proposed regulations as set out in paragraphs 69 to 70?</p>	<p><input checked="" type="checkbox"/></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;">YES</td> <td style="text-align: center;">NO</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;"> </td> </tr> </table> <p>If no, please say why:</p> <div style="border: 1px solid black; height: 150px; width: 100%;"></div>	YES	NO		
YES	NO					

9	<p>How well do you think that the estimates contained in the regulatory impact assessment reflect the costs and benefits to industry of implementing the proposals? What would you like to see considered further? (paragraphs 80 to 81 and appendix 5)</p>	<p><input checked="" type="checkbox"/></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;">Very well</td> <td style="text-align: center;">Well</td> <td style="text-align: center;">Not well</td> <td style="text-align: center;">Poorly</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;"> </td> <td style="text-align: center;"> </td> <td style="text-align: center;"> </td> </tr> </table>	Very well	Well	Not well	Poorly				
Very well	Well	Not well	Poorly							

Please support your view with alternative cost estimates:

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10	<p>Are you content with our proposed approach to guidance? (paragraphs 82 to 83)</p>	<input checked="" type="checkbox"/> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <th>YES</th> <th>NO</th> </tr> <tr> <td style="width: 30px; height: 20px;"></td> <td style="width: 30px; height: 20px;"></td> </tr> </table> <p>If no, please say why:</p> <div style="border: 1px solid black; height: 150px; width: 100%;"></div>	YES	NO		
YES	NO					

11	<p>Looking to the future, bearing in mind that amendments to RID/ADR are subject to international negotiations, what changes to RID/ADR would you welcome?</p>	
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12	<p>How well does the CD represent the different policy issues involved in this matter?</p>	<input checked="" type="checkbox"/> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <th>Very well</th> <th>Well</th> <th>Not well</th> <th>Poorly</th> </tr> <tr> <td style="width: 60px; height: 25px;"></td> <td style="width: 60px; height: 25px;"></td> <td style="width: 60px; height: 25px;"></td> <td style="width: 60px; height: 25px;"></td> </tr> </table>	Very well	Well	Not well	Poorly				
Very well	Well	Not well	Poorly							

13	Is there anything you particularly liked or disliked about this consultation exercise?	
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