STATUTORY INSTRUMENTS

1996 No. 1350

The Radioactive Material (Road Transport) (Great Britain) Regulations 1996

Citation and Commencement

1. These Regulations may be cited as the Radioactive Material (Road Transport) (Great Britain) Regulations 1996 and shall come into force on 20th June 1996.

Interpretation

2.—(1) In these Regulations, unless the context otherwise requires—

"A_1" means the maximum activity of special form radioactive material permitted in a Type A package, calculated in accordance with Schedule 1;

"A_2" means the maximum activity of radioactive material other than special form radioactive material permitted in a Type A package, calculated in accordance with Schedule 1;

"accident conditions of transport" means conditions of transport involving more than minor mishaps;

"ADR" means the 1995 edition of the "European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)" (1995) produced by the Department of Transport and published by HMSO (ISBN 011-551265-9);

"the Act" means the Radioactive Material (Road Transport) Act 1991;

"carrier" means a person undertaking the transport of radioactive material, and includes both a carrier for hire or reward and a carrier on own account;

"competent authority" means the Secretary of State, or any national authority of a state other than the United Kingdom or any international authority designated or otherwise recognised as a competent authority for any purpose in connection with the International Safety Regulations as they apply to road transport;

"competent authority identification mark" means a mark assigned by a competent authority in accordance with Schedule 23;

"consignee" any person who receives a consignment;

"consignment" means any package or packages, or load of radioactive material, presented by a consignor for transport;

"consignor" means any person who presents a consignment for transport and who is named as consignor in the transport documents, or a freight forwarder acting as agent for such a person;

"containment system" means the assembly of components of the packaging specified by the designer as intended to retain and form the boundary of the radioactive material during transport;

"contamination" means the contamination of any surface or any part of absorbent material by any radioactive material, and "contaminated" and "decontaminated" shall be construed accordingly;

"conveyance" means any vehicle, any seagoing vessel or inland waterway craft used for carrying cargo, any hold, compartment or deck area of any such vessel or craft, or any aircraft;

"the Dangerous Goods Recommendations" means the eighth revised edition of the "The United Nations Recommendations on the Transport of Dangerous Goods" prepared by the United Nations Committee of Experts on the Transport of Dangerous Goods published by HMSO (ISBN 92-1-139042-7);

"depleted uranium" means uranium containing a lesser mass percentage of uranium-235 than in natural uranium;

"design" means, in relation to any package, packaging or special form radioactive material, a description which enables that package, packaging or material to be fully identified and which may include specifications, engineering drawings, reports demonstrating compliance with regulatory requirements, and other relevant documentation;

"driver" means, in relation to a trailer, the driver of the vehicle by which the trailer is drawn;

"excepted package" means a package which meets the requirements of paragraphs 1 to 9 and 12 of Schedule 2 and—

(a) is a package containing radioactive material of limited activity which meets the requirements of Schedule 3;

(b) is a package containing instruments or manufactured articles which meets the requirements of Schedule 4; or

(c) is an empty packaging which meets the requirements of Schedule 5.

"exclusive use" means the sole use, by a single consignor, of a conveyance or of a large freight container with a minimum length of 6 metres, in respect of which all initial, intermediate, and final loading and unloading is carried out in accordance with the directions of the consignor or consignee;

"fissile material" means uranium-233, uranium-235, plutonium-238, plutonium-239, plutonium-241, or any combination thereof, and does not include unirradiated natural uranium, unirradiated depleted uranium, or natural uranium or depleted uranium which has been irradiated in thermal reactors only;

"fissible package" means a package which meets the requirements of Schedule 7;

"fixed contamination" means contamination which is not non-fixed contamination;

"freight container" means an article of transport equipment designed to facilitate the transport of goods, either packaged or unpackaged, by one or more modes of transport without intermediate reloading, which is of a permanent enclosed character, rigid and strong enough for repeated use, and fitted with devices facilitating its handling particularly in transfer between conveyances and from one mode of transport to another;

"goods compartment" means a part of a vehicle intended or adapted for the transport of goods or burden;

"industrial package" means an industrial package Type 1 (IP-1), an industrial package Type 2 (IP-2) or an industrial package Type 3 (IP-3);

"industrial package Type 1 (IP-1)" means a package meeting the requirements of Schedule 9, Part I;

"industrial package Type 2 (IP-2)" means a package meeting the requirements of Schedule 9, Part II;

"industrial package Type 3 (IP-3)" means a package meeting the requirements of Schedule 9, Part III;

"the International Safety Regulations" means the "Regulations for the Safe Transport of Radioactive Material 1985 edition (As amended 1990)" published by the International Atomic Energy Agency, Vienna 1990, Safety Series No. 6 (ISBN 92-0-123890-8);

"the ISO classification document" means the International Organisation for Standardisation document, "Sealed radioactive sources—Classification" published by the British Standards Institution and HMSO (Reference No. ISO 2919-1980 (E));

"the ISO freight containers document" means the International Organisation for Standardisation document, "Series 1 Freight Containers—Specifications and Testing—Part 1: General Cargo Containers" published by the British Standards Institution and HMSO (Reference No. ISO 1496/1-1978);

"the ISO leak test document" means the International Organisation for Standardisation document, "Sealed Radioactive Sources—Leak Test Methods" published by the British Standards Institution and HMSO (Reference No. ISO/TR 4826-1979 (E));

"large freight container" means a freight container which is not a small freight container;

"low specific activity material" means radioactive material which by its nature has a limited specific activity, or for which limits of estimated average specific activity, disregarding external shielding materials surrounding the radioactive material, apply;

"LSA material" means low specific activity material;

"LSA-I" means LSA material comprising—

(i) ores containing naturally occurring radionuclides (such as uranium and thorium), and uranium or thorium concentrates of such ores;

(ii) solid unirradiated natural uranium or depleted uranium or natural thorium or their solid or liquid compounds or mixtures; or

(iii) radioactive material, other than fissile material, for which the A_2 value is unlimited;

"LSA-II" means LSA material comprising—

(i) water with tritium concentration up to 0.8 TBq/L; or

(ii) other material in which the activity is distributed throughout and the estimated average specific activity does not exceed 10^{-4} A_2/g for solids and gases, and 10^{-5} A_2/g for liquids;

"LSA-III" means LSA material comprising solids (such as consolidated wastes and activated materials) in which:

(i) the radioactive material is distributed throughout a solid or a collection of solid objects, or is essentially uniformly distributed in a solid compact binding agent (such as concrete, bitumen, ceramic, etc.);

(ii) the radioactive material is relatively insoluble, or it is intrinsically contained in a relatively insoluble matrix; and

(iii) the estimated average specific activity of the solid, excluding any shielding material, does not exceed 2×10^{-3} A_2/g;

and which is of such a nature that if the entire contents of a package containing the material were subjected to the test specified in Part I of Schedule 15 the activity in the water used in the test would not, at the end of the test, exceed 0.1 A_2;

"low toxicity alpha emitter" means thorium-228 in ores or physical or chemical concentrates, natural uranium, depleted uranium, natural thorium, uranium-235, uranium-238, thorium-232, or an alpha emitter with a half-life of less than ten days;

"maximum normal operating pressure" means the maximum pressure above atmospheric pressure at mean sea level that would develop in the containment system in a period of one

year under the conditions of temperature and solar radiation corresponding to environmental conditions of transport in the absence of venting, external cooling by an ancillary system, or operational controls during transport;

"multilateral approval" means approval by the competent authority both of the state of origin of the design or shipment and of each state through or into (but not by air over) which the consignment is to be transported;

"naturally occurring distribution of uranium isotopes" means approximately 99.28% uranium-238 and 0.72% uranium-235 by mass, but including a very small mass percentage of uranium-234;

"natural uranium" means chemically separated uranium containing the naturally occurring distribution of uranium isotopes;

"non-fixed contamination" means contamination that can be removed from a surface during normal handling;

"normal conditions of transport" means conditions of transport including minor mishaps;

"the Northern Ireland Regulations" means regulations for the time being in force for Northern Ireland under an Order in Council under paragraph 1(1)(b) of Schedule 1 to the Northern Ireland Act 1974(**1**) which contains the statement specified in section 8 of the Act;

"overpack" means an enclosure, such as a box or bag, which is used by a single consignor to consolidate into one handling unit a consignment of two or more packages for convenience of handling, stowage and transport;

"package" means packaging with the radioactive contents thereof as presented for transport;

"packaging" may, in particular, include service equipment for filling, emptying, venting and pressure relief, and devices for cooling, for absorbing mechanical shocks, for providing handling and tie-down capability, for thermal insulation and service devices integral to the package, and may be a box, drum or similar receptacle, or a freight container or tank;

"personnel compartment" means a driver's compartment in a vehicle or a part of a vehicle intended or adapted for the carriage of persons in the vehicle;

"quality assurance programme" means a systematic programme of controls, inspections and training applied by any organisation or body involved in the transport of radioactive material, including designers and manufacturers of packagings, consignors and carriers, to ensure compliance with the requirements of the International Safety Regulations applicable to packages and consignments;

"radiation level" means the corresponding dose equivalent rate expressed in millisieverts per hour ("mSv/h");

"radioactive contents" means radioactive material together with any contaminated solids, liquids and gases within the packaging;

"radioactive material" does not include radioactive material which is an integral part of the means of transport of that material;

"road": (a) in relation to England and Wales, means any highway and any other road to which the public has access, and (b) in relation to Scotland has the same meaning as in the Roads (Scotland) Act 1984(**2**);

"routine transport" means incident free conditions;

"shipment" means the specific movement of a consignment from origin to destination where that movement includes transport in Great Britain;

(**1**) 1974 c. 28.
(**2**) 1984 c. 54; the definition of "road" in section 151(1) was amended by the New Roads and Street Works Act 1991 (c. 22), section 168(1) and Schedule 8.

"small freight container" means a freight contrainer which has either any overall outer dimension less than 1.5 metres, or an internal volume of not more than 3.0 m^3;

"special arrangement" means provisions approved under regulation 15;

"special form radioactive material" means an indispersible solid radioactive material or a sealed capsule containing radioactive material, which meets the requirements of Schedule 6;

"specific activity" means the activity of a radionuclide per unit mass of that nuclide, the specific activity of a material in which the radionuclide is essentially uniformly distributed being the activity per unit mass of that material;

"surface contaminated object" means a solid object which is not itself radioactive but which has radioactive material distributed on its surfaces;

"SCO" means a surface contaminated object;

"SCO-I" means an SCO on which:

(i) the non-fixed contamination on the accessible surface averaged over 300 cm^2 (or the area of the surface if less than 300 cm^2) does not exceed 4 Bq/cm^2 for beta and gamma emitters and low toxicity alpha emitters, or 0.4 Bq/cm^2 for all other alpha emitters; and

(ii) the fixed contamination on the accessible surface, averaged over 300 cm^2 (or the area of the surface if less than 300 cm^2) does not exceed 4×10^4 Bq/cm^2 for beta and gamma emitters and low toxicity alpha emitters, or 4×10^3 Bq/cm^2 for all other alpha emitters; and

(iii) the non-fixed contamination plus the fixed contamination on the inaccessible surface, averaged over 300 cm^2 (or the area of the surface if less than 300 cm^2) does not exceed 4×10^4 Bq/cm^2 for beta and gamma emitters and low toxicity alpha emitters, or 4×10^3 Bq/cm^2 for all other alpha emitters;

"SCO-II" means an SCO on which either the fixed or non-fixed contamination on the surface exceeds the applicable limits specified for SCO-I in the definition of that term and on which:

(i) the non-fixed contamination on the accessible surface averaged over 300 cm^2 (or the area of the surface if less than 300 cm^2) does not exceed 400 Bq/cm^2 for beta and gamma emitters and low toxicity alpha emitters, or 40 Bq/cm^2 for all other alpha emitters; and

(ii) the fixed contamination on the accessible surface, averaged over 300 cm^2 (or the area of the surface if less than 300 cm^2) does not exceed 8×10^5 Bq/cm^2 for beta and gamma emitters and low toxicity alpha emitters, or 8×10^4 Bq/cm^2 for all other alpha emitters; and

(iii) the non-fixed contamination plus the fixed contamination on the inaccessible surface averaged over 300 cm^2 (or the area of the surface if less than 300 cm^2) does not exceed 8×10^5 Bq/cm^2 for beta and gamma emitters and low toxicity alpha emitters, or 8×10^4 Bq/cm^2 for all other alpha emitters;

"tank" means a tank container, portable tank, a road tank vehicle, a rail tank wagon or a receptacle with a capacity of not less than 450 litres to contain liquids, powders, granules, slurries or solids which are loaded as gas or liquid and subsequently solidified, and not less than 1000 litres to contain gases;

"tank container" means a container capable of being carried on land or on sea and of being loaded and discharged without the need of removal of its structural equipment, possessing stabilising members and tie-down attachments external to the shell, and capable of being lifted when full;

"transport" means transport by road and includes all operations and conditions associated with and involved in the movement of radioactive material by road, including—

(a) the design, fabrication and maintenance of packaging,

(b) the preparation, consigning, handling, carriage, storage in transit and receipt at the final destination of packages,

(c) normal and accident conditions of transport by road encountered in carriage and in storage during transit, and

(d) transport by road which is incidental to the use of the radioactive material;

"Transport Index (TI)" means a single number determined in accordance with Schedule 17 and assigned to a package, overpack, tank or freight container, or to unpackaged LSA-I or SCO-I;

"Type A package" means a package containing an activity up to A_1, if special form radioactive material, or up to A_2 if not special form radioactive material, meeting the requirements of Schedule 11;

"Type B package" means a package containing an activity that may be in excess of A_1, if special form radioactive material, or in excess of A_2 if not special form radioactive material, which is either a Type B(M) package or a Type B(U) package;

"Type B(M) package" means a package meeting the requirements of Schedule 14;

"Type B(U) package" means a package meeting the requirements of Schedule 13;

"uncompressed gas" means gas at a pressure not exceeding ambient atmospheric pressure at the time the containment system is closed;

"unilateral approval" means an approval of a design which is required to be given by the competent authority of the state of origin of the design alone;

"unirradiated thorium" means thorium containing not more than 10^{-7} g of uranium-233 per gram of thorium-232;

"unirradiated uranium" means uranium containing not more than 10^{-6} g of plutonium per gram of uranium-235 and not more than 9 MBq of fission products per gram of uranium-235;

"vehicle" means a road vehicle, including an articulated vehicle, and, except for the purposes of regulation 34, each trailer shall be considered as a separate vehicle;

"visiting force" means any such body, contingent or detachment of the forces of any state to which the provisions of the Visiting Forces Act 1952(**3**) apply by virtue of section 1(1)(a) or section 1(1)(b), and any Order in Council under section 1(2), of that Act.

(2) These Regulations give effect to the International Safety Regulations and, unless the context otherwise requires, other expressions used in these Regulations which are also used in those Regulations have the meaning they bear in those Regulations.

(3) In these Regulations, unless the context otherwise requires, any reference to—

(a) a numbered regulation or a numbered schedule is a reference to the regulation or schedule bearing that number in these Regulations;

(b) a numbered paragraph is a reference to the paragraph bearing that number in the regulation or schedule in which the reference appears;

(c) a numbered table is a reference to the table bearing that number in Schedule 36.

Application of the Regulations

3.—(1) Subject to paragraph (2), these Regulations apply to the transport in Great Britain of any radioactive material.

(**3**) 1952 c. 67.

(2) These Regulations do not apply to—

(a) the transport of radioactive material contained in the body of any person as a result of the implantation in that person of a radioisotopic cardiac pacemaker or other device, or the diagnosis or treatment of that person with radiopharmaceuticals;

(b) the transport of radioactive material in a vehicle which—

(i) is engaged in an international transport operation within the meaning of ADR,

(ii) complies with the conditions contained in Annexes A and B to ADR, and

(iii) is certified pursuant to ADR as complying with it;

(c) a transport operation which is subject to a special bilateral or multilateral agreement under the terms of Article 4 of ADR to which the United Kingdom is a Contracting Party;

(d) the transport of radioactive material which is or forms part of an instrument of war or is required for research into or development or production of any such instrument or part of such an instrument or is produced in the course of or in connection with such a development or production, when the transport is on behalf of a Department of the Government of the United Kingdom or is in connection with the execution of a contract made with any such Department;

(e) the transport of radioactive material which is or forms part of an instrument of war when the transport is on behalf of a visiting force or is in connection with the execution of a contract made with any such force;

(f) the transport of luminous devices worn by a person or luminous devices as part of the vehicle;

(g) the transport in any one vehicle of no more than 500 smoke detectors for domestic use with an individual activity not exceeding 40 KBq;

(h) the transport of gaseous tritium light devices with an individual activity not exceeding 10 GBq when no more than five such devices are transported in the vehicle.

Knowledge of radioactivity

4. These Regulations shall not apply to a person in relation to radioactive material if that person does not know or does not have reasonable grounds to believe that the material is radioactive.

General prohibitions

5. No person shall transport or cause to be transported any radioactive material except in accordance with these Regulations.

6. No person shall—

(a) transport radioactive material in a vehicle which is a public service vehicle within the meaning of the Public Passenger Vehicles Act 1981(**4**) or a tramcar or trolley vehicle within the meaning of the Road Traffic Act 1988(**5**); or

(b) transport radioactive material in a vehicle which is carrying any explosive substance within the meaning of the Road Traffic (Carriage of Explosives) Regulations 1989(**6**) except under special arrangement in accordance with regulation 15; or

(**4**) 1981 c. 14; the definition of "public service vehicle" in section 1 was amended by the Transport Act 1985 (c. 67), section 139(3) and Schedule 8.
(**5**) 1988 c. 52; the definition of "trolley vehicle" in section 192(1) was amended by the Road Traffic Act 1991 (c. 40), section 48 and Schedule 4.
(**6**) S.I. 1989/615.

(c) transport any package in a vehicle if he knows or has reason to believe that the package has or may have been damaged, unless the consignor of the package or his agent has made a declaration in the terms set out in paragraph 20 of Schedule 20 after the incident giving rise to the damage or possibility of damage, and that declaration is transported with the package; or

(d) transport in a vehicle any packaging bearing a label described in Schedule 18 which does not correspond to the contents of that packaging.

7. No person shall be a carrier of radioactive material unless—

(a) he is the consignor of that material; or

(b) he holds transport documents for that material issued in accordance with regulation 27; or

(c) the material is in the course of its first transport in Great Britain since being imported into Great Britain from Northern Ireland, and he knows, or has reasonable grounds to believe, that it meets the requirements of the Northern Ireland Regulations as to its labelling and transport documents.

8. Subject to regulation 15, no person shall transport or cause to be transported any radioactive material except—

(a) in a package which is—

(i) an excepted package,

(ii) an industrial package,

(iii) a Type A package, or

(iv) a Type B package,

and which is also, if the radioactive material is fissile material and the package does not fall within Schedule 8, a fissile package; or

(b) unpackaged LSA-I or SCO-I, in accordance with the conditions prescribed in paragraph 3 of Schedule 10.

(a) (a) No person shall transport or cause to be transported any other goods in a tank which is being or has at any time been used for the storage or transport of radioactive material.

(b) No person shall transport or cause to be transported any liquid radioactive material in a tank unless—

(i) the tank opening is above the level of the liquid; and

(ii) the piping or pipe connections of the shell walls are below the level of the liquid.

General obligation

10. The consignor and the carrier of radioactive material in a vehicle, and the driver of the vehicle, shall exercise reasonable care to ensure that the material shall not, in the course of transport, cause any injury to health, or any damage to property or to the environment.

Tampering with, and securing of, packages

11.—(1) No person shall wilfully damage, or open without reasonable cause, any package in the course of transport.

(2) No person other than the carrier of radioactive material shall remove the material from the vehicle transporting it while in the course of transport, or alter the position of any package in the vehicle, except in accordance with the instructions of the carrier, the consignor or the consignee, or for reasonable cause.

(3) The carrier of any package shall exercise all reasonable care to ensure that the package is secured against unlawful removal from the vehicle transporting it and is securely stowed in the vehicle during transport.

Tampering with labels

12. No person shall—

(a) remove without reasonable cause from a package in the course of transport any label attached to or warning sign or mark displayed on or within the package in accordance with the requirements of these Regulations, or wilfully deface any such label, sign or mark; or

(b) remove without reasonable cause from a vehicle carrying radioactive material any label, notice, placard or plate carried by that vehicle in accordance with the requirements of these Regulations, or wilfully deface any such label, notice, placard or plate.

Contents limits

13. Subject to regulation 15, no person shall transport or cause to be transported any package unless the quantity of radioactive material in the package is within the contents limits specified for that type of package in Schedule 16.

Transport Index (TI) limits

14.—(1) No person shall transport or cause to be transported any package, overpack, tank, freight container or unpackaged LSA-I or SCO-I unless the Transport Index (TI) for that item has been determined by the consignor in accordance with Schedule 17.

(2) Subject to regulation 15, no person shall transport or cause to be transported any package or overpack with a Transport Index (TI) greater than 10 except under exclusive use.

(3) No person shall transport or cause to be transported in a conveyance any radioactive material (other than a consignment consisting entirely of LSA-I material) if the total sum of the Transport Indexes (TI) of the packages, overpacks, tanks and freight containers aboard that conveyance is greater than 50, except under exclusive use.

(4) No person shall transport or cause to be transported in a conveyance under exclusive use any packages or overpacks containing fissile material if the total sum of the Transport Index (TI) of such packages or overpacks is greater than 100.

Special arrangement

15.—(1) Radioactive material whose transport is otherwise prohibited by regulation 8 or 13 or prohibited except under exclusive use by regulation 14(2) may be transported under special arrangement with multilateral approval.

(2) Approval may not be given by the Secretary of State to the transport of a consignment by special arrangement unless the provisions for such transport are adequate to ensure that the overall level of safety in transport and in-transit storage is at least equivalent to that which would have been achieved if all the applicable requirements of these Regulations had been met.

(3) Application for approval by the Secretary of State of a shipment under special arrangement shall be made in accordance with the provisions of Schedule 28.

(4) The approval of a shipment by the Secretary of State under this regulation shall be given by the issue of a special arrangement approval certificate.

(5) The approval by the competent authority of another state of a shipment under special arrangement shall be evidenced by a special arrangement approval certificate issued by that competent authority.

Radiation level limits for consignments under exclusive use

16. No person shall transport or cause to be transported any consignment under exclusive use unless the radiation level of the consignment is within the limits specified in Schedule 32.

Special form radioactive material

17.—(1) No person shall transport or cause to be transported any special form radioactive material without unilateral approval of the design for that material.

(2) Where the design for special form radioactive material originates in the United Kingdom, application for the approval of the design by the Secretary of State shall be made in accordance with Schedule 22.

(3) The approval by the Secretary of State of a design for special form radioactive material shall be given by the issue of a special form radioactive material approval certificate.

(4) Where the design for special form radioactive material originated in a state other than the United Kingdom, unilateral approval of the design shall be evidenced by a special form radioactive material approval certificate issued by the competent authority of the state of origin of the design.

Fissile material

18.—(1) No person shall transport or cause to be transported any fissile material, other than fissile material contained in a package falling within Schedule 8, without multilateral approval of the package design for that material.

(2) Application for the approval of a package design for fissile material by the Secretary of State shall be made in accordance with Schedule 24.

(3) The approval by the Secretary of State of a package design for fissile material shall be given by the issue of a certificate, and the approval by another competent authority of a package design for such material shall be evidenced by a certificate issued by that authority.

Type B(U) packages

19.—(1) No person shall transport or cause to be transported any Type B(U) package without unilateral approval of the package design for that package or, in the case of a package containing fissile material and requiring approval under regulation 19(1), multilateral approval of the package design for that package.

(2) Application for approval of a package design for a Type B(U) package by the Secretary of State shall be made in accordance with Schedule 25.

(3) The approval by the Secretary of State of a package design for a Type B(U) package shall be given by the issue of a certificate stating that the package design meets the requirements of Schedule 13.

(4) The approval by a competent authority other than the Secretary of State of a package design for a Type B(U) package shall be evidenced by a certificate issued by that authority stating that the package design meets requirements equivalent to those of Schedule 13.

Type B(M) packages

20.—(1) No person shall transport or cause to be transported any Type B(M) package without multilateral approval of the package design for that package.

(2) Application for approval of a package design for a Type B(M) package by the Secretary of State shall be made in accordance with Schedule 26.

(2) The approval by the Secretary of State of a package design for a Type B(M) package shall be given by the issue of a certificate stating that the package design meets the requirements of Schedule 14.

(4) The approval by a competent authority other than the Secretary of State of a package design for a Type B(M) package shall be evidenced by a certificate issued by that authority stating that the package design meets requirements equivalent to those of Schedule 14.

Contamination levels

21.—(1) The non-fixed contamination on the external surfaces of package shall be kept as low as reasonably practicable and, under conditions likely to be encountered in routine transport, shall not exceed the levels spedified in Table III of Schedule 36.

(2) Except as provided in paragraph (5), the level of non-fixed contamination on the external and the internal surfaces of overpacks, freight containers and tanks shall not exceed the limits specified in Table III of Schedule 36.

(3) A conveyance and equipment used routinely for the transport of radioactive material shall be periodically checked to determine the level of contamination. The frequency of such checks shall be related to the likelihood of contamination and the extent to which radioactive material is transported.

(4) Except as provided in paragraph (5), any conveyance, or equipment, or part thereof which has become contaminated above the limits specified in Table III of Schedule 36 or which shows a radiation level in excess of 5 μ Sv/h, in the course of the transport of radioactive material shall be decontaminated as soon as possible and shall not be re-used unless the non-fixed radioactive contamination does not exceed the levels specified in Table III of Schedule 36, and the radiation level resulting from the fixed contamination on surfaces after decontamination is less than 5 μ Sv/h.

(5) An overpack, freight container or conveyance dedicated to the transport of LSA material or SCO under exclusive use shall be excepted from the requirements of paragraphs (2) and (4) solely with regard to its internal surfaces and only for as long as it remains under that specific exclusive use.

Saving and transitional provision for designs approved under earlier international regulations or under previous Regulations

22.—(1) Subject to the following provisions of this regulation, notwithstanding the provisions of regulations 18 to 20, or regulation 41, packaging whose construction begins before 1st January 1996 and which is manufactured to a design approved by a competent authority under the 1973 edition of the "Regulations for the Safe Transport of Radioactive Material" published by the International Atomic Energy Agency, Vienna 1973, Safety Series No. 6 (STI/PUB 323), the 1973 (as amended) edition of those Regulations, published by the International Atomic Energy Agency, Vienna 1979, Safety Series No. 6 (ISBN 92-0-623179-0), or the Regulations revoked by these Regulations may continue to be used in the transport of radioactive material.

(2) The use of any packaging falling within paragraph (1) shall require multilateral approval.

(3) Before use, any packaging falling within paragraph (1) shall be legibly and durably marked with a serial number assigned in accordance with the provisions of paragraph 3 of Schedule 18.

(4) Paragraph (1) shall not apply where changes which have been made in the design of the packaging or in the nature or quantity of the authorised radioactive contents are likely to affect safety.

Shipments requiring approval

23.—(1) No person shall send or make a shipment of any of the following without multilateral approval of the shipment:

(a) a Type B(M) package especially designed to allow controlled intermittent venting;

(b) a Type B(M) package containing radioactive material with an activity greater than 3×10^3 A_1 or 3×10^3 A_2, as appropriate, or 1000 TBq, whichever is the lower;

(c) packages containing fissile materials if the sum of the Transport Indexes (TI) of the individual packages exceeds 50.

(2) Application for approval by the Secretary of State of a shipment falling within paragraph (1) shall be made in accordance with Schedule 27.

(3) The approval of a shipment by the Secretary of State under this regulation shall be given by the issue of a certificate.

(4) The approval of the competent authority of another state of a shipment shall be evidenced by a certificate issued by that competent authority.

Quality assurance programmes

24.—(1) It shall be the duty of the designer, manufacturer, consignor, carrier and user of any package, packaging or special form radioactive material to establish and maintain an adequate quality assurance programme to ensure that he complies with the requirements of these Regulations in relation to the design, manufacture, testing, documentation, use, maintenance, inspection, transport and in-transit storage of that package, packaging or material.

(2) Where these Regulations require a design or a shipment to be approved by the Secretary of State, no such approval shall be given until the Secretary of State is satisfied as to the adequacy of the quality assurance programme for that design or shipment.

(3) It shall be the duty of the designer, manufacturer, consignor and user of any package design, when so requested by the Secretary of State:

(a) to provide the Secretary of State with facilities to inspect the packaging during construction and use;

(b) to demonstrate to the Secretary of State that the construction methods and materials used for the construction of the packaging are in accordance with the approved design specifications; and

(c) to demonstrate to the Secretary of State that all packagings or special form radioactive material built to an approved design are periodically inspected and, as necessary, repaired and maintained in good condition so that they continue to comply with all the requirements of these Regulations, even after repeated use; and

(d) in the case of a design specification which has been fully implemented, to produce a certificate to that effect to the Secretary of State.

Test procedures

25.—(1) Any test required of a package or special form radioactive material by or under these Regulations shall be made in accordance with the provisions of paragraphs 1 to 5 of Part III, and Part IV, of Schedule 15.

(2) The Secretary of State may require such additional tests as he considers necessary to be made on any package or special form radioactive material required by these Regulations to be tested.

Retention and production of information

26.—(1) The consignor of any consignment shall retain for 2 years from the date on which the transport of that consignment begins any information in his possession derived from measurements of contamination of that consignment.

(2) The designer, manufacturer, owner and user of any package, packaging or special form radioactive material shall retain any information in his possession relating to the design, manufacture, testing, use and maintenance of that package, packaging or material, including (without prejudice to the generality of the foregoing) specifications, calculations, test results, quality assurance programmes and manufacturing records, for so long as the package, packaging or material is in use for the transport of radioactive material.

(3) An inspector may require the designer, manufacturer, owner, consignor or user of any package, packaging or special form radioactive material to produce such information in his possession relating to that package, packaging or material as the inspector may specify.

Transport documents

27.—(1) The consignor of any consignment for transport, other than a consignment comprising excepted packages only or a consignment in respect of which he holds a regular consignment certificate under regulation 28, shall, before the transport begins, give to the carrier of the consignment or, where the consignor is the carrier, to the driver of the vehicle in which the consignment is to be transported, the following transport documents:

(a) a document meeting the requirements of Schedule 20; and

(b) a statement for the carrier in accordance with Schedule 21, covering all the radioactive material in the consignment.

(2) The consignor of a consignment comprising excepted packages only shall, before the transport begins, give to the carrier of the consignment or, where the consignor is the carrier, to the driver of the vehicle in which the consignment is to be transported a document containing the information listed in paragraphs 2, 3, 7 and 15 of Schedule 20 and the declaration listed in paragraph 20 of that Schedule covering all the radioactive material in the consignment.

(3) The consignor of any consignment shall, on request, make available to the carrier for inspection before the loading, unloading or any transshipment of the consignment all certificates of approval required by these Regulations for the transport of the consignment.

(4) No consignor shall prepare a package for shipment until he has in his possession a copy of each certificate of approval required by these Regulations for the shipment, and a copy of the instructions for the proper closing of the package and other preparations for shipment.

(5) The consignor of any consignment falling within paragraph (1) or (2) shall retain a copy of the document described in paragraph (1)(a) or, as the case may be, paragraph (2), or a record of the number and type of packages and the total number of transport indexes for each package type consigned for 2 years from the date on which the transport of that consignment begins.

Transport documents for regular consignments

28.—(1) Where the same packaging with the same radioactive contents is consigned as a package on a regular basis by the same consignor, who is also the carrier of that package, the Secretary of State may issue a regular consignment certificate for that package in accordance with the provisions of Schedule 35.

(2) The consignor of any package in respect of which he holds a current regular consignment ceritificate issued under paragraph (1) shall carry in the vehicle in which the consignment is transported a document containing a statement that the consignment is covered by a regular consignment certificate issued under this regulation, the date and contents of that certificate, a record

(including destinations and dates) of all consignments made under that certificate, and an expiry date for the document not later than 3 months after the date of the declaration contained in that certificate.

(3) The consignor of any package falling within paragraph (2) shall retain a copy of the document described in paragraph (2), or a complete record of the contents of that document, for 2 years from the date on which the transport of that package begins.

Production of documents

29. An examiner, an inspector or a constable in uniform may require the carrier of any radioactive material or the driver of any vehicle transporting radioactive material to produce for inspection such documents relating to that material and required by these Regulations as the examiner, inspector or constable may specify.

Marking, labelling and placarding

30.—(1) Except where the consignment consists solely of excepted packages, the consignor of any consignment for transport shall comply with the requirements of paragraphs 1 to 8 of Schedule 18 and the carrier of the consignment shall comply with paragraphs 9 to 16 of that Schedule.

(2) Any placards or plates required by paragraph (1) to be displayed on the vehicle shall be removed when the vehicle is no longer transporting the consignment to which they relate.

Package inspection prior to shipment

31.—(1) No person shall send or make the first shipment of any package unless the package meets the requirements of Schedule 29.

(2) No person shall send or make any shipment of any package unless the package meets the requirements of Schedule 30.

Stowing for transport

32.—(1) The carrier of any consignment shall comply with the requirements of Schedule 33 as to stowing for transport.

(2) No carrier shall load a conveyance for transport in such a way that the radiation level under conditions likely to be encountered in routine transport exceeds 2 mSv/h at any point on, or 0.1 mSv/h at 2 metres from, the external surface of the conveyance.

Notification of competent authorities

33.—(1) No consignor shall make the first shipment of any package requiring the approval of any competent authority under these Regulations until copies of each approval certificate required for the package design of that package have been submitted to the competent authority of each state through or into which the consignment is to be transported.

(2) No consignor shall make any shipment:

(a) of a Type B(U) package containing radioactive material with an activity greater than 3×10^3 A_1 or 3×10^3 A_2, as appropriate, or 1000 TBq, whichever is the lower;

(b) of a Type B(M) package; or

(c) comprising transport under special arrangement, without giving notice in accordance with Schedule 31 to the competent authority of each state through or into which the consignment is to be transported.

Restrictions on travel in vehicles transporting radioactive materials

34.—(1) No person shall travel in a vehicle which is transporting radioactive material unless:

(a) he is the carrier of the material or travels with the permission of the carrier of the material;

(b) he travels in a personnel compartment; and

(c) the material is transported in a goods compartment.

(2) No person except the driver and his assistant or assistants may travel in a vehicle transporting a package, overpack, tank or freight container bearing category II-YELLOW or III-YELLOW labels in accordance with Schedules 18 and 19.

(3) In this regulation reference to travelling in a vehicle transporting a package, overpack, tank or freight container shall, where the vehicle transporting the package, overpack, tank or freight container is a trailer, include reference to the vehicle by which the trailer is drawn.

(4) Except where a vehicle is solely transporting a consignment of excepted packages, to which the provisions of marginal 10 240 (1)(a) shall apply, no person shall travel in a vehicle which is transporting radioactive material unless the vehicle is equipped with firefighting appliances in accordance with marginal 10 240 of ADR.

(5) Paragraph (4) shall not apply where no more than 10 packages are transported in one vehicle at any one time and the sum of the Transport Indexes (TI) for the packages does not exceed 3.

Storage in transit

35. The carrier of any consignment shall comply with the requirements of Schedule 34 as to storage of the consignment in transit.

Duties of driver during transport

36. The driver of a vehicle transporting radioactive material:

(a) shall exercise reasonable care to ensure that none of the material shall in the course of transport be lost, or escape or be unlawfully removed from the vehicle or from any package;

(b) shall not without reasonable cause leave the vehicle unattended in a place to which the public has access;

(c) shall not park the vehicle for a continuous period of longer than one hour in any place, unless when it is parked there is a clear space of at least 2 metres on both sides and at both ends of the vehicle, or unless the only radioactive material in the vehicle is contained in excepted packages, industrial packages or Type A packages bearing category I-WHITE labels in accordance with Schedules 18 and 19; and

(d) keep on the vehicle the transport document issued in accordance with regulation 27 or 28 until the package to which the document relates has been delivered to the consignee.

Undeliverable consignments

37. The carrier of any consignment which proves to be undeliverable shall place it in a safe location, inform the Secretary of State as soon as possible and ask for his approval of further action.

Duties of driver and carrier in the event of an incident

38.—(1) The driver of a vehicle transporting radioactive material who discovers or has reason to believe that:

(a) any of that material has been lost, escaped or unlawfully removed from the vehicle; or

(b) any package carried by the vehicle has been opened or otherwise damaged whether or not the package is still in or on the vehicle; or

(c) the vehicle has overturned (including being turned on its side), or has suffered serious damage, or is involved in a fire,

shall immediately notify the police and the consignor.

(2) A carrier of radioactive material in a vehicle who becomes aware of an incident falling within paragraph (1) shall immediately notify the police, the Secretary of State and the consignor of the incident (unless the driver of the vehicle has already done so) and shall as soon as reasonably practicable arrange for the examination of the load carried in the vehicle so as to determine whether radioactive contamination has occurred, and if it has, arrange for the safe disposal of any part of the load which has been contaminated and cause the vehicle to be decontaminated.

(3) A package which has been involved in an incident falling within paragraph (1) shall not be transported or caused to be transported unless the consignor or his agent has examined it, he is satisfied that it still complies with the requirements of these Regulations and he issues a certificate to that effect.

Notification and registration of serial numbers

39.—(1) The manufacturer of any packaging manufactured after the date of these Regulations to a design approved by the Secretary of State under regulation 18(3), 19(3) or 20(3) or falling within regulation 22(1) shall promptly notify the Secretary of State of the serial number assigned to that packaging.

(2) The owner of any other packaging manufactured to a design approved by the Secretary of State under regulation 18(3), 19(3) or 20(3) or falling within regulation 22(1) shall promptly notify the Secretary of State of the serial number assigned to that packaging.

(3) The Secretary of State shall maintain a register of the serial numbers notified to him under paragraphs (1) and (2).

Evaluation of radiation emissions

40. For the purpose of ensuring that the transport of radioactive material does not cause any injury to health, or any damage to property or to the environment, the Secretary of State shall arrange for periodic assessments to be carried out to evaluate the radiation emissions arising from such transport.

Revocation of existing Regulations

41. The Radioactive Substances (Carriage by Road) (Great Britain) Regulations 1974(**7**) and the Radioactive Substances (Carriage by Road) (Great Britain) (Amendment) Regulations 1985(**8**) are hereby revoked.

(**7**) S.I. 1974/1735.
(**8**) S.I. 1985/1729.

Signed by the authority of the Secretary of State

Steven Norris
Parliamentary Under Secretary of State,
Department of Transport

20th May 1996