STATUTORY RULES OF NORTHERN IRELAND

2003 No. 533

HEALTH AND SAFETY

Packaging, Labelling and Carriage of Radioactive Material by Rail Regulations (Northern Ireland) 2003

Made - - - - 16th December 2003

Coming into operation 27th February 2004

The Department of Enterprise, Trade and Investment(**1**), being the Department concerned(**2**), in exercise of the powers conferred by Articles 2(5), 17(1) to (6), 40(2) and (4) and 55(2) of, and paragraphs 1(1) to (4), 2, 3(1), 4 to 14(1), 15, 19 and 20(a) and (b) of Schedule 3 to, the Health and Safety at Work (Northern Ireland) Order 1978(**3**) and of every other power enabling it in that behalf and for the purpose of giving effect without modifications to proposals submitted to it by the Health and Safety Executive for Northern Ireland under Article 13(1A)(**4**) of that Order after the carrying out by the said Executive of consultations in accordance with Article 46(1) and (3)(**5**) of that Order, and being a Department designated(**6**) for the purposes of section 2(2) of the European Communities Act 1972(**7**) both in relation to measures relating to informing the public about health protection measures to be taken in the event of a radiological emergency and in relation to measures relating to the basic safety standards for the protection of the general public and workers against the dangers of ionising radiation in exercise of the powers conferred by the said section 2(2) and of every other power enabling it in that behalf, hereby makes the following Regulations:

(**1**) Formerly the Department of Economic Development; *see* S.I. 1982/846 (N.I. 11), Article 3 and S.I. 1999/283 (N.I. 1), Article 3(5)
(**2**) *See* Article 2(2) of S.I. 1978/1039 (N.I. 9)
(**3**) S.I. 1978/1039 (N.I. 9); Article 17(4) was amended by S.I. 1998/2795 (N.I. 18), Article 6(1) and Schedule 1, paragraph 8; Article 17(6) was amended by S.I. 1992/1728 (N.I. 17), Article 6(2); and Article 55(2) was amended by S.I. 1998/2795 (N.I. 18), Article 6(1) and Schedule 1, paragraph 19
(**4**) Article 13(1A) was substituted by S.I. 1998/2795 (N.I. 18), Article 4
(**5**) Article 46(1) and (3) was amended by S.I. 1998/2795 (N.I. 18), Article 6(1) and Schedule 1, paragraphs 8 and 18
(**6**) S.I. 1991/2289
(**7**) 1972 c. 68

PART I

INTRODUCTION

Citation and commencement

1. These Regulations may be cited as the Packaging, Labelling and Carriage of Radioactive Material by Rail Regulations (Northern Ireland) 2003 and shall come into operation on 27th February 2004.

Interpretation

2.—(1) In these Regulations –

"the 1978 Order" means the Health and Safety at Work (Northern Ireland) Order 1978;

"A_1" means the activity value of special form radioactive material which is listed in Table 2.2.7.7.2.1 in RID sub-paragraph 2.2.7.7.2 or derived in accordance with that sub-paragraph;

"A_2" means the activity value of radioactive material, other than special form radioactive material, which is listed in Table 2.2.7.7.2.1 in RID sub-paragraph 2.2.7.7.2 or derived in accordance with that sub-paragraph;

"authorised person" means the Secretary of State or an inspector appointed under Article 21 of the 1978 Order;

"body", in relation to an intermediate bulk container, means the receptacle, including the openings and their closures, but does not include any service equipment;

"box" means a packaging with complete rectangular or polygonal faces –

(a) which is made of metal, wood, plywood, reconstituted wood, fibreboard, plastics or other suitable material; and

(b) whose integrity during carriage will not be compromised by any holes inserted for the purpose of –

  (i) making handling or opening easier; or

  (ii) meeting classification requirements;

"carriage" means the change of place of radioactive material, and includes –

(a) stops made necessary by transport conditions;

(b) any period spent by the radioactive material in wagons, tanks, and containers made necessary by traffic conditions before, during and after the change of place; and

(c) the intermediate temporary storage of radioactive material in order to change the mode of transport provided that –

  (i) transport documents showing the place of dispatch and the place of reception are presented on request by an authorised person; and

  (ii) packages and tanks are not opened during the intermediate temporary storage, except to be checked by the Secretary of State;

"closure" means a device which closes an opening;

"competent authority" means –

(a) the Secretary of State;

(b) as regards a State other than the United Kingdom, the authority designated as the competent authority in that State for any purpose in connection with RID;

"consignee" means –

(a) the person who is the consignee under the terms of the contract for the carriage in question;

(b) the person who, in accordance with the contract for the carriage in question, is designated by the person referred to in (a) to act on his behalf; or

(c) if there is no contract for carriage, the person who takes charge of the consignment in question when that consignment has arrived at its final destination;

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

"consignor of radioactive material" means –

(a) a person who –

(i) has a place of business in Northern Ireland; and

(ii) consigns radioactive material for carriage, whether as principal or as an agent for another; or

(b) as regards the radioactive material in question, if there is no such person as described in sub-paragraph (a), a person who has control over the carriage of that radioactive material in Northern Ireland;

"container" means an article of transport equipment which is –

(a) of a permanent character and strong enough to be suitable for repeated use;

(b) specially designed to facilitate the carriage of goods by one or more means of transport without breakage of load;

(c) fitted with devices permitting its ready stowage and handling, particularly when being transferred from one means of transport to another; and

(d) designed so as to be easy to fill and empty;

"contamination" means the presence of a radioactive material on a surface in quantities in excess of 0·4 Bq/cm^2 for beta and gamma emitters and low toxicity alpha emitters, or 0·04 Bq/cm^2 for all other alpha emitters;

"COTIF" means the Convention concerning International Carriage by Rail, as revised or re-issued from time to time(**8**);

"COTIF Member State" means a country which is a party to COTIF;

"criticality safety index" means a number which is used to provide control over the accumulation of packages, overpacks or containers which contain fissile material;

"dangerous goods" means substances and articles the carriage of which is prohibited by RID, or authorised only in accordance with the conditions prescribed in RID;

"demountable tank" means a tank designed to fit the special apparatus of a wagon but which can only be removed from the wagon after dismantling the means of attachment;

"depleted uranium" means uranium which contains a lesser mass percentage of uranium-235 than in natural uranium and which also contains a very small mass percentage of uranium-234;

"design", in relation to special form radioactive material, low dispersible radioactive material, a package or packaging, means a description which –

(a) enables the material, package or packaging in question to be fully identified; and

(b) may include specifications, engineering drawings, reports demonstrating compliance with regulatory requirements and other relevant documentation;

(**8**) Cmnd. 5897

"drum" means a flat-ended, or convex-ended cylindrical packaging made out of metal, fibreboard, plastic, plywood or other suitable material and includes packaging of other shapes such as round taper-necked packaging or pail-shaped packaging, but does not include a wooden barrel or a jerry can;

"emergency services" means the police, fire and ambulance services;

"factory" has the meaning assigned to it by section 175 of the Factories Act (Northern Ireland) 1965(**9**);

"fissile material" means uranium-233, uranium-235, plutonium-239, plutonium-241 or any combination of these radionuclides, but does not include natural uranium or depleted uranium which –

(a) is unirradiated; or

(b) has been irradiated only in thermal reactors;

"fixed contamination" means contamination other than non-fixed contamination;

"flexible intermediate bulk container" means a body made up of film, woven fabric or any other flexible material and, where necessary, an inner coating or liner together with any service equipment and handling devices;

"harbour area" has the meaning assigned to it by regulation 2(1) of the Dangerous Substances in Harbour Areas Regulations (Northern Ireland) 1991(**10**);

"infrastructure controller" means a person who controls railway infrastructure;

"intermediate bulk container" means a rigid or flexible portable packaging which –

(a) has a capacity of not more than $3m^3$ for radioactive material;

(b) is designed for mechanical handling; and

(c) is resistant to the stresses produced in handling and transport as determined by the tests specified in RID Chapter 6.5;

"jerry can" means a metal or plastic packaging of rectangular or polygonal cross-section with one or more orifices;

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

"light maintenance depot" means any land or other property which is normally used for or in connection with the provision of light maintenance services, whether or not it is also used for other purposes;

"light maintenance services" means services of any of the following descriptions, that is to say –

(a) the refuelling, or the cleaning of the exterior, of locomotives or other rolling stock;

(b) the carrying out to locomotives or other rolling stock of maintenance work of a kind which is normally carried out at regular intervals of twelve months or less to prepare the locomotive or other rolling stock for service;

"low dispersible radioactive material" means –

(a) a solid radioactive material; or

(b) a solid radioactive material in a sealed capsule,

which has limited dispersibility and is not in powder form;

"low specific activity material" means –

(a) radioactive material which by its nature has a limited specific activity, or

(**9**) 1965 c. 20 (N.I.); section 175(2)(n) was amended by regulation 3(1) of, and Schedule 1 to, S.R. 1984 No. 283
(**10**) S.R. 1991 No. 509, to which there are amendments not relevant to these Regulations

(b) radioactive material for which limits of estimated average specific activity, disregarding external shielding surrounding the radioactive material, apply;

"LSA-I" means low specific activity material comprising –

(a) uranium and thorium ores and the concentrates of such ores, and other ores containing naturally occurring radionuclides which are intended to be processed for the use of those radionuclides;

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

(c) radioactive material for which the A_2 value is unlimited, excluding fissile material in quantities not excepted under RID paragraph 6.4.11.2; or

(d) other radioactive material in which the activity is distributed throughout that radioactive material and the estimated average specific activity does not exceed 30 times the values for activity concentration specified in RID sub-paragraphs 2.2.7.7.2.1 to 2.2.7.7.2.6, excluding fissile material in quantities not excepted under RID paragraph 6.4.11.2;

"LSA-II" means low specific activity material comprising –

(a) water with tritium concentration up to 0·8 TBq/l; or

(b) 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 low specific activity material comprising solids, such as consolidated wastes and activated materials, but excluding powders, in which –

(a) 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 or ceramic;

(b) the radioactive material is relatively insoluble, or it is intrinsically contained in a relatively insoluble matrix, so that even under loss of packaging, the loss of radioactive material per package by leaching when placed in water for seven days would not exceed $0{\cdot}1A_2$; and

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

"low toxicity alpha emitters" means thorium-228 and thorium-230 when contained in ores or physical or chemical concentrates, natural uranium, depleted uranium, natural thorium, uranium-235, uranium-238, thorium-232 or alpha emitters with a half life of less than ten days;

"military establishment" means an establishment intended for use for naval, military or air force purposes or for the purposes of the Department of the Secretary of State having responsibility for defence;

"mine" has the meaning given in Part I of Schedule 1;

"minerals" includes stone, slate, clay, gravel, sand and other natural deposits except peat;

"multilateral approval" means approval by the competent authority both of the State of origin of the design or shipment in question and of each State through or into which the consignment in question is to be carried;

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

"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;