



Fire Industry Association

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IONISATION CHAMBER SMOKE DETECTORS & THE RADIOACTIVE MATERIAL (ROAD TRANSPORT) REGULATIONS 2002

1. FOREWARD

Statutory Instrument 2002 No. 1093, The Radioactive Material (Road Transport) Regulations 2002, introduced new regulations pertinent to the transport of radioactive materials. These regulations, which are commonly known as **RAMRoad02**, came into force on 7th June 2002. The 2002 regulations were amended, with effect from 22nd August 2003, by Statutory Instrument 2003 No. 1867, The Radioactive Material (Road Transport) (Amendment) Regulations 2003. The introduction of the 2002 Regulations revokes the 1996 Regulations.

International Regulations

Statutory Instrument 2002 No. 1093 implements the international agreement on the Regulations for the Safe Transport of Radioactive Material (1996 Edition (Revised)) published by the International Atomic Energy Authority ("IAEA1996"). It also covers the European Agreement concerning the international carriage of dangerous goods by road ("ADR") with any amendment up to 1st July 2001 and the Council Directives 96/29/EURATOM and Commission Directive 2001/7/EC.

2. INTRODUCTION

The regulations covered by RAMRoad02 affect many BFPSA members who either manufacture or use ionization chamber smoke detectors (ICSDs). In order to raise the awareness of the changes and the implications that the new regulations have on the way that companies operate their businesses, this document summarises the key requirements that apply to the Fire Detection and Alarm Industry and what companies have to do to comply with the requirements for packaging ICSDs and transporting them.

3. PACKAGING REQUIREMENTS OF RAMRoad02 Requirements

Under regulation 41, ion detectors in packages (i.e. a box or a pallet of boxes if bound together) whose total Am²⁴¹ activity is less than 1GBq (or less than 30,000 ion detectors at 33.3kBq each) can be transported as 'excepted packages'. Under this regulation, the dose rate on any surface must not exceed 5 μ Sv/h. The following conditions also apply to excepted packages:

- 1) Each package must be legibly and durably marked on the outside of the packaging with an identification of either or both the consignor or consignee (Schedule 6).

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- 2) The outside of the package must be marked with “UN2911” but does not require an indication of the presence of radioactive material within (no trefoil need be present).
- 3) The package must however include a warning, visible when the package is opened, to the effect that it contains radioactive material.
- 4) The package must be accompanied by a signed “transport document”, (Schedule 6, paragraph 17), which:
 - a. Includes a heading or reference to The Radioactive Material (Road Transport) Regulations 2002;
 - b. Lists the consignor's name and address, and provides an emergency telephone number;
 - c. Lists the consignee's name and address;
 - d. Include the UN class and UN number and proper shipping name assigned to the material transported, i.e. “Class 7, UN2911 RADIOACTIVE MATERIAL, EXCEPTED PACKAGE – INSTRUMENTS”.
- 5) The transport document must include a declaration (Schedule 6, paragraphs 18 to 21), which:
 - a) States “Contents are fully and accurately described by the proper shipping name and are classified, packed, marked and labelled, and are in all respects in proper condition for transport by road according to applicable international and national regulations.”
 - b) Has provision for a dated, authorised signature (a facsimile signature is acceptable).

Under regulation 42, empty packages that have previously contained radioactive material may be transported as an excepted package only if:

- 1) The re-used package is in a well-maintained condition and is securely closed.
- 2) Contamination, when averaged over any area of 300 cm² of any part of the surface, does not exceed 40 Bq/cm².
- 3) Any label(s) that may have been displayed in conformity with the labelling requirements of the regulations are no longer visible.

Recommendations

- 1) Make sure that your company's Dispatch department is equipped with the means of marking cartons containing ICSDs with the mandatory “UN2911” marking. This must be legible and durable.
- 2) The text specified for a “transport document”, together with the declaration and provision for authorization should be added to the company's specific shipping documents.
- 3) Individuals within the company involved with shipping should be authorized to sign the declaration printed on the shipping documents.
- 4) Arrange to have a double-sided sheet printed with “WARNING – RADIOACTIVE MATERIAL” printed on it. The radioactive trefoil may be included on this sheet. This should be placed in the bottom and at the top of any carton containing ionisation detectors.

4. TRANSPORT OF ICSDs IN A VEHICLE

Requirement

In Schedule 1, the RAMRoad02 regulations include nuclide specific quantities below which the transport of radioactive material is exempt from the regulations. For Am²⁴¹ the activity limit for an exempt consignment is 10 kBq, therefore the transporter of a single ICSD has duties under RAMRoad02.

Implications

This means that anyone carrying a single ICSD in a vehicle is subject to the RAMRoad02 regulations.

Requirement

When carrying excepted packages, drivers of vehicles, and any assistant present in the vehicle, must have received general training to enable them to understand the hazards presented by the goods they are transporting and the actions to be taken in the event of an emergency.

The Regulations apply to company vehicles, private vehicles, hired vehicles and public transport vehicles.

Implications

The implications of this legislative requirement are far reaching for BFPSA members; some of the limitations it imposes are listed below:

- a) Sales Managers cannot have samples of ion detectors in their cars unless they comply with the RAMRoad02 requirements.
- b) Technical sales staff cannot have samples of ion detectors in their cars when going on a site visit unless they comply with the RAMRoad02 requirements.
- c) Engineers dealing with third party approvals cannot take samples of ion detectors to BRE, or any other external laboratory, by car unless they comply with the RAMRoad02 requirements.
- d) Staff cannot move ion detectors around in the local area using a company vehicle unless that vehicle complies with the RAMRoad02 requirements.
- e) Sales staff cannot give out samples of ion detectors to customers while they are on the company premises when it is obvious that the customer will drive off in a non-compliant vehicle.
- f) Sales staff cannot sell ion detectors to customers that come to the company premises when it is obvious that the customer will drive off in a non-compliant vehicle.

Requirement

In Schedule 7, the 'Responsibilities of carriers', the RAMRoad02 Regulations states that vehicles must be equipped in accordance with the provisions of paragraph 8.1.4 of ADR (the European Agreement concerning the international Carriage of Dangerous Goods by Road) in respect of fire fighting equipment.

Implications

- 1) For vehicle carrying **non-excepted** packages the vehicle must be equipped as follows:
 - a. Vehicles of 3.5 tonnes or less must carry one portable dry powder (or equivalent) 2kg fire extinguisher suitable for fighting a fire in the engine or in the cab, and a second 2 kg extinguisher for other fires.
 - b. For vehicles greater than 3.5 tonnes but less than 7.5 tonnes, the additional extinguisher must have a capacity of 6 kg.
 - c. For vehicles greater than 7.5 tonnes, the second extinguisher must have a capacity of 10 kg.
- 2) The 1996 Transport Regulations included a clause that allowed the transport of (only) **excepted** packages without the needs to carry any fire extinguishers. A UK derogation was issued for ADR to allow this clause from the 1996 Regulations to be used and Regulations 5 (4) (d) of the 2002 Transport Regulations (RAMRoad02) allows this derogation to continue.

Hence, there is no requirement for fire fighting equipment to be carried on vehicles carrying only excepted packages.

However, it is recommended, for good practice, that a vehicle transporting excepted packages is equipped with at least one suitable fire extinguisher (although this is not a mandatory requirement).

AMENDMENT 2003

The 2003 amendment does not significantly change the 2002 Regulations and the requirements and recommendations set above continue to apply.

5. HOW TO OBTAIN A COPY OF THE REGULATIONS

- a) Statutory Instruments can be obtained by visiting the HMSO web site at <http://www.legislation.hmso.gov.uk/stat.htm> and then by selecting the year and number of the publication wanted.

- b) Alternatively, publications may be purchased from:
The Stationery Office Ltd (TSO)
PO Box 29
St Crispins
Duke Street
Norwich
NR3 1GN
Phone: 0870 600 5522
Fax: 0870 600 5533
Email: book.orders@tso.co.uk
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OCTOBER 2004

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