



Transit premises used in connection with civil transport of radioactive material by road and rail

Introduction

The Radiation (Emergency Preparedness and Public Information) Regulations 2019 (REPPiR19), which replaced REPPiR 2001, establish a framework of preparedness measures to ensure that arrangements are in place to effectively respond to radiation emergencies, both on the site of the emergency situation and off-site where members of the public might be affected. The requirements of REPPiR19, the Approved Code of Practice (ACoP) and associated guidance can be found at <http://www.onr.org.uk/documents/2019/reppir-19-acop-and-guidance.pdf>

REPPiR19 does not specifically apply to the transport of radioactive materials. For road, and rail transport, in relation to transport emergencies the provisions of The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (as amended 2019) apply (CDG). The Ionising Radiations Regulations 2017 (IRR17) also apply in relation to transport of radioactive material.¹

For operators of transit sheds, depots, warehouses or other premises² where radioactive materials are stored whilst in-transit (hereafter referred to as “transit premises”) REPPiR19 could apply where non-exempt quantities of radionuclides or masses of fissile material greater than those in Schedules 1 and 2 respectively are handled or stored even on a temporary basis. Where this is the case, a subsequent evaluation of the hazards posed is required to demonstrate the magnitude of off-site consequences in terms of radiation dose. This will inform next steps. [REPPiR19 does not apply where materials handled or stored at transit premises are at or below relevant quantities detailed in Schedules 1 or 2. Details of sources and substances that are not within the scope of REPPiR19 are discussed in Regulation 3(5).]

Regulating REPPiR19 in relation to transit premises

ONR and HSE have recently signed an Agency Agreement (AA) in relation to REPPiR19 and transit premises used for the civil transport of radioactive material by road and rail. This means responsibility for regulating and enforcing in this area has now passed from HSE to ONR. Details of the AA, and the legal provisions that enable this approach, can be found at <http://www.onr.org.uk/documents/2020/agency-agreement-hse-20.pdf>

This was done to reduce the burden on industry in line with the Regulators’ Code³ principles by minimising the number of regulators involved in regulating certain operations at transit premises. ONR already regulates CDG and IRR17 in relation to transit premises used in connection with civil transport of radioactive material by road and rail. [Note that, for transport of radioactive material by road and by rail for defence purposes, HSE retains REPPiR19 transit premises regulatory responsibilities and also regulates IRR17].

¹ CDG and IRR17 are available at <https://www.legislation.gov.uk/>

² For further guidance on what constitutes ‘premises’ please refer to accompanying guidance to REPPiR19 Regulations 2(1) and 2(2). Paragraphs 55 to 64 and 80 are particularly relevant.

³ The Regulators’ Code is available at <https://www.gov.uk/government/publications/regulators-code>

Next steps

Operators of transit premises should ensure that their operations have been reviewed in line with REPP19 requirements, and all necessary actions have been taken to comply with relevant obligations. Further information has been provided in the Appendix that follows.

Updated 30 November 2020

Please note: This guidance note has been revised from an earlier version (dated September 2020) to reflect the revised paragraph numberings that the publication of REPP19, the ACoP and supporting guidance in L126 (2nd edition) has introduced.

Appendix

The obligations operators of transit premises have now in relation to REPP19 are different to those they may have had under previous REPP19 legislation. Therefore, it is appropriate for operators to thoroughly review REPP19 requirements. The following information provides some additional guidance aimed to assist operators. It is not intended to be exhaustive.

Understanding when REPP19 applies and what is required

Where an operator of the transit premises can demonstrate that the following specific exemptions apply to the inventory of radioactive substances handled or stored then REPP19 will not apply:

- the activity concentration of any radioactive substance is not more than 100 Bq/g;
- the radioactive substances concerned are special form or non-dispersible;⁴ or
- any radioactive substance is in an appropriate Type B(U), B(M) or Type C package and remains in that package whilst on the premises.

Where the quantities of radioactive substances that are in the premises at any given time that are not exempt exceed thresholds in Schedule 1, or the mass of fissile material in the premises exceed Schedule 2, then REPP19 may apply.

However, where an operator can demonstrate that an inventory of material exceeding Schedule 1 or Schedule 2 thresholds is held but that it would not allow, in any radiation emergency situation, an effective dose to members of the public off-site of more than 1mSv over the period of a year following the event, assuming no urgent protective actions were taken, REPP19 will not apply (Regulation 3(2) refers.)

A hazard evaluation will be required to support use of this provision. The evaluation must clearly demonstrate that any radiation emergency is not capable of resulting in an annual effective dose off-site exceeding 1mSv. [Regulation 4(3) refers.] There are various ways of achieving this. Operators may draw on information contained in existing radiation risk assessments carried out as a result of their obligations under IRR17 (Regulation 8) to inform the evaluation work.

Alternatively, operators may make a demonstration by undertaking a simplified assessment of dose consequences using information provided by Public Health England (PHE). PHE have produced datafiles which were used to develop REPP19 Schedules 1 and 2 values. Certain baseline parameters can be refined to enable assessment of dose consequences more accurately reflecting conditions at the operators' premises. Free datafiles are available from <https://www.phe-protectionservices.org.uk/eras/reppir2019/> [Please note that the UK Government recently announced the creation of a new National Institute for Health Protection (NIHP). It is understood that all the radiation protection services currently provided by the Centre for Radiation, Chemical and Environmental Hazards (CRCE) within PHE will transfer into NIHP by 1 April 2021. For the latest position, please refer to PHE's website at <https://www.phe-protectionservices.org.uk/>

⁴ 'Non-dispersible' is defined in Regulation 2(1) of REPP19, and in accompanying guidance in paragraphs 52 to 54. Guidance in paragraphs 105 to 117 supporting Regulation 3(5) is relevant where a case is being made to demonstrate that a source is non-dispersible.

Other matters like the form the material takes are worthy of consideration in any evaluation. Further information on this and other relevant matters is provided in the ACoP and guidance to REPP19 (paragraphs 126 to 180).

It would be appropriate for operators to consult with their Radiation Protection Adviser (RPA) in relation to evaluating hazards present in relation to REPP19, with this consultation already being a necessary part of IRR17 obligations in relation to radiation risk assessment. (IRR17, Reg 14 refers.)

Where an operator concludes there are no significant off-site consequences arising from a radiation emergency in line with Reg 3(2), a justification for the conclusions drawn from the evaluation must be recorded. This must be provided to the regulator within 28 days of the date it was made (Regulation 4(7) refers.)

Further dutyholder obligations are then limited to ensuring that the hazard evaluation is reviewed where a material change is proposed or has occurred, and every 3 years updating the regulator with a revised evaluation or a declaration there is no change of circumstances. This is required within 28 days in each case.

When the full scope of REPP19 does apply – what next?

Where a hazard evaluation concludes there is potential for an effective dose to members of the public exceeding 1mSv in the year following a radiation emergency, the operator's obligations are more extensive. They involve undertaking consequence assessment work, preparing a consequence report, engaging with the local authority and regulators in a timely manner, and preparing a detailed emergency plan, co-operating with relevant others (e.g. the consignor, airport/port operators) in this process. Please note this is not an exhaustive list of requirements.

Information to include in a hazard evaluation

Irrespective of the conclusions drawn, a copy of the hazard evaluation (with any supporting evidence) should be retained by the operator, with a further copy being forwarded to the regulator within 28 days of completing the evaluation.

The evaluation should, where appropriate, contain the following:

- a) name and address of the operator
- b) the postal address of the premises where the radioactive substance will be handled/stored
- c) the date work did commence or will commence
- d) a general description of the premises
- e) a description and details of radioactive substances on the premises which is likely to exceed any quantity or mass specified in Schedules 1 or 2
- f) a plan of the premises in question and a map of the environs
- g) a summary description of any plant(s) or enclosed system(s) containing more than the quantity or mass of any radioactive substance specified in Schedule 1 or Schedule 2, and the nature of the containment for the radioactive substance
- (h) those hazards which could precipitate a release of any radioactive substance and the safety measures to be taken to prevent and control such a release
- (i) those hazards which could give rise to an incident involving the initiation of an unintended self-sustaining nuclear chain reaction or the loss of control of an intended self-sustaining nuclear chain reaction and, in either case, the safety measures to be taken to prevent and control any such incident
- (j) information concerning the management systems and staffing arrangements relevant to the control of any radioactive substance

- (k) a summary description of the hazards identified
- (l) the results of the analysis against the risk framework including for each radiation emergency identified; justification for the grouping together of any fault groups, the off-site effective dose to the most exposed persons, the likelihood for the consequences to occur, and the associated source term in a suitable form

A separate evaluation report may not be necessary. Operators can cross-reference other existing documentation as appropriate. Guidance can be found in REPPIR19 (paragraphs 176 to 180).

Where should an operator send a hazard evaluation?

If the evaluation relates to transit premises used in relation to civil transport of radioactive material by road or rail, please send relevant REPPIR19 correspondence to ONR at REPPIR19compliance@onr.gov.uk

If the evaluation relates to transit premises used in relation to defence transport of radioactive material by road or rail, please send relevant REPPIR19 correspondence to HSE at reppir-regs@hse.gov.uk

The relevant regulator will review submissions and the conclusions reached.

Further information

Further information is available from:-

- 1) REPPIR19, the Approved Code of Practice and associated guidance, which can be found at <http://www.onr.org.uk/documents/2019/reppir-19-acop-and-guidance.pdf>
- 2) ONR website
<http://www.onr.org.uk/emergency-arrangements.htm>
- 3) HSE website
<https://www.hse.gov.uk/radiation/ionising/reppir.htm#apply>

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