

Health and Safety
Executive

REPPIR Regulations 14(2), (3) & (4):

Provisional HSE Internal Guidance on Dose Levels for Emergencies

Scope

1. Comprehensive guidance on REPPIR has been published in reference 1, and further fully open internal guidance is given in reference 2. In consideration of notifications and directions under regulations 14(2), 14(3) and 14(4), that guidance is to be primarily relied upon. The guidance in this note relates only to the appropriateness of specific numerical dose levels identified in Operators' and Carriers' notifications.
2. This guidance applies only where a "radiation emergency" as defined in regulation 2(1) of REPPIR could occur, i.e. it does not cover, for example, intervention in radiation accidents which have no significant impact on members of the public.
3. The guidance is for application only within the constraints imposed by REPPIR and the published guidance.
4. The topic of this guidance is currently the subject of consultation outside HSE, and should be regarded as provisional for the present.

Guidance

5. Notifications should recognise the need to apply ALARP to intervention, and not treat disapplication of the dose limits under regulation 15 as a general amnesty on the need to control doses up to the notified dose levels for emergencies.
6. The notified dose levels should be appropriate and justified in relation to the Operator's or Carrier's Hazard Identification and Risk Evaluation (regulations 4-6). The figures given below are intended as upper values, and lower values (above the dose limits) should be sought where reasonable. Emergency dose levels should not be seen by Operators or Carriers as a panacea to deal with accidents, and hence evidence should also be sought that further reductions in the proposed levels through planning and preparation are not reasonably practicable.
7. Subject to the above, emergency dose levels up to those listed below should normally be regarded as acceptable to HSE:

Effective Dose

100 mSv

Equivalent Dose to Skin

1000 mSv

Equivalent Dose to Eye Lens

300 mSv

8. Specific provision may be made explicitly for life saving. In this case it should be recognised that regulation 14(7) may disapply regulations 14(2), 14(3) and 14(4). However,

it is desirable that for planning purposes the objective should normally be to apply the following levels:

Whole Body Dose:

500 mGy

Dose to Skin:

5000 mGy

These figures are expressed in milligray not millisievert as the appropriate dose quantity in relation to deterministic effects. Caution should be applied in conversion from one to the other.

Actions which carry a significant risk of the above benchmarks being substantially exceeded should only be taken when the likely benefits in terms of life saving clearly outweigh the risks to those carrying out the intervention, and this should be reflected at the planning stage.

References

1. L126 - A guide to the Radiation (Emergency Preparedness and Public Information) Regulations 2001, HSE 2002, ISBN 9 780717 622405
2. OC 560/52 - Operational Circular (version 1, 29 November 2001): Radiation (Emergency Preparedness and Public Information) Regulations 2001