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# Environmental Permitting

## Environmental Permitting Guidance Radioactive Substances Regulation (RSR)

For the Environmental Permitting (England and Wales)  
Regulations 2010

Draft guidance for Consultation – May 2009



Llywodraeth Cynulliad Cymru  
Welsh Assembly Government



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This document is available on the Defra website:

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Published by the Department for Environment, Food and Rural Affairs



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## 1. Introduction **About this guidance**

- 1.1. This guidance is part of a series of guidance documents which accompany the Environmental Permitting (England and Wales) Regulations SI 2010 No. [XXXX] ('the Regulations').
- 1.2. The series consists of the Core Guidance for the Environmental Permitting (England and Wales) Regulations 2010 ('the Core Guidance') which describes the general permitting and compliance requirements; and specific guidance on each of the European Directives implemented by the Regulations.
- 1.3. This guidance is about the permitting and other requirements specific to Radioactive Substances Regulation (RSR). In the case of RSR, the regulatory regime covers more than one European Directive. Parts of some of these Directives are also implemented by other regulatory regimes and these other regimes to an extent complement RSR.
- 1.4. This guidance is being published to help the Environment Agency, which is responsible for dealing with permits under RSR, and those whose operations involve the keeping and use of radioactive materials, and the accumulation and disposal of radioactive waste (referred to as 'operators' in this guidance). It sets out the position of the Secretary of State for the Department for Environment, Food and Rural Affairs (Defra), the Department of Energy and Climate Change (DECC), and the Welsh Assembly Government (WAG) on how RSR should be applied and implemented, and how particular terms should be interpreted in England and Wales. The guidance explains the legal requirements, but only the national or European courts can give a definitive interpretation of the legislation.
- 1.5. This guidance should be read in conjunction with the Core Guidance. Where specific requirements for RSR differ from those in the Core Guidance, this document sets out the differences.
- 1.6. The Environment Agency has provided additional guidance on RSR. This is available on its website [www.environment-agency.gov.uk](http://www.environment-agency.gov.uk). Of particular note are the Radioactive Substances Regulation – Environmental Principles (REPs), which set out the Environment Agency's overall approach to RSR.
- 1.7. Chapter 2 of this guidance sets out the radioactive material and waste within scope of RSR and those matters which are in scope but exempt from the need for a permit. Chapter 3 sets out the permitting requirements specific to RSR, based on the relevant Directives and describes how the Directives are delivered through environmental permits for RSR. Chapter 4 describes additional requirements.
- 1.8. RSR-specific requirements are set out in Schedule 22 to the Regulations (reproduced in this document as Annex 1).

## Interface with other legislation

- 1.9. The Justification of Practices Involving Ionising Radiation Regulations 2004, SI 2004 no. 1769 ('the Justification Regulations') set out the requirements in respect of the 'justification' of a class or type of practice resulting in exposure to ionising radiation. These Regulations implement the relevant parts of Article 6 of Council Directive 96/29/Euratom laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionising radiation (the 'Basic Safety Standards Directive', or BSSD). 'Justification' means that for a class or type of practice, the overall benefits must outweigh the health detriments that may be caused. Those classes or types of practice which existed before 13 May 2000 are deemed to be justified, but these may be reviewed from time to time. Decisions on Justification are for Government, and in taking such decisions they seek advice as required, including from the Environment Agency. If an application for a permit relates to a practice under BSSD, then the Environment Agency should only grant that permit if the practice is justified.
- 1.10. The Ionising Radiations Regulations 1999, SI 1999 no. 3232 (IRR99) implement in Great Britain a number of requirements of the BSSD, particularly in relation to occupational exposure. There is, in certain circumstances, a balance to be struck between radiation exposure to a workforce and to members of the public. The regulator in respect of IRR99 is the Health and Safety Executive (HSE), and they and the Environment Agency co-operate in exercising their respective functions.
- 1.11. The Radioactive Contaminated Land (Modification of Enactments) (England) Regulations 2006 (SI 2006/1379) and The Radioactive Contaminated Land (Modification of Enactments) (England) (Amendment) Regulations 2007 (SI 2007/3245) and the Welsh equivalents (SI 2006/2988 and SI 2007/3250) (RCL) are concerned with the remediation of land contaminated with radioactive substances in certain circumstances. Such remediation could lead to a need for permitting under RSR in circumstances where radioactive waste is accumulated or disposed of.
- 1.12. The Nuclear Installations Act 1965 (NIA65) delivers many of the regulatory requirements for radioactive substances on sites licensed under NIA65. However, RSR permits are also required in respect of such sites in relation to the generation and disposal, including by transfer, of radioactive waste; permits may include conditions – management arrangements, monitoring, record keeping etc - relating to the management of wastes. The regulator in respect of NIA65 is HSE and they and the Environment Agency co-operate in exercising their respective functions. In addition, tenants on nuclear licensed sites may require RSR permits for the keeping or use of radioactive material.

- 1.13. The Transfrontier Shipment of Radioactive Waste and Spent Nuclear Fuel Regulations 2008 (SI 2008 no. 3087) (TFS) set out the circumstances under which radioactive wastes and spent nuclear fuel may be imported and exported.

## 2. Scope of the Guidance

- 2.1. Any operator who wishes to engage in the keeping or use of radioactive substances or the accumulation and disposal of radioactive waste which is not excluded or exempted from regulation (see 2.2 and 2.3 below) requires a permit. These permits are intended to fulfill part of the BSSD requirements under Articles 3(1), 4(1) and 4(2) relating to reporting and authorisation, and also Council Directive 2003/122/EURATOM on the control of high-activity sealed sources and orphan sources (HASS).
- 2.2. All matter on earth is, to some extent, radioactive. Where the radioactive content of materials and wastes is below certain thresholds, or is present simply as a consequence of natural radioactivity in the undisturbed environment, that material and waste are not within the scope of RSR.
- 2.3. Certain types of radioactive material and radioactive waste are of such low risk that although they are in scope of RSR, their use or disposal does not require a permit. If an Exemption Order applies to a radioactive substances activity, an environmental permit is not required.. Those who carry out activities in relation to radioactive material or waste need to decide if they can work within a relevant exemption, although they may take advice from the Environment Agency. Although some activities in relation to certain material and waste may not require a permit, this does not mean that they are completely outside the regulatory regime. The Environment Agency may inspect any premises where radioactive material or disposing of radioactive waste is held or disposed of, whether or not a permit is required in relation to that radioactive material or waste and take any action within its powers which it believes appropriate.
- 2.4. Premises occupied on behalf of the Crown for naval, military or air force purposes, or for the purposes of the Ministry of Defence, or occupied by or for the purposes of a visiting force are not subject to the RSR provisions of the Regulations. However, the Ministry of Defence complies with the requirements under a voluntary arrangement.
- 2.5. RSR does not apply to domestic premises, i.e. where no undertaking is being carried on from the premises. Historical activities, or releases of radioactivity resulting from a contemporary incident, may result in domestic premises becoming contaminated with radioactivity. In such cases, the advice of the Environment Agency and the Radiation Protection Division of the Health Protection Agency should be sought. The RSR provisions of the Regulations provide powers to the Environment Agency to dispose of radioactive waste in certain circumstances; these include waste on unoccupied premises, where occupants are absent or insolvent, or where the Environment Agency

believes that the waste will not otherwise be disposed of in accordance with the RSR requirements of the Regulations (paragraph 13 in Schedule 22).

- 2.6. The RSR provisions of the Regulations do not apply to radioactive material in or on any railway vehicle, road vehicle, vessel or aircraft which is on any premises 'in the course of a journey' or where the material is used for the purposes of propelling it.
- 2.7. The RSR provisions of the Regulations do not apply to the keeping or use of clocks and watches containing radioactive material, or the accumulation and disposal of such items when they become waste, except in the case of manufacturers and repairers of such items if manufacture or repair involves the use of luminous material.

## 3. Permitting

- 3.1. In the context of this guidance, 'permitting' is taken to mean the complete regulatory cycle which includes application, determination, reporting, compliance and surrender. This Chapter describes the technical requirements that the permitting process must deliver and how the Regulations apply these requirements.
- 3.2. Permitting requirements derive from the relevant Directives, as transposed in the legislation applying to England and Wales. In the permitting process, the Environment Agency must have regard to Statutory Guidance and should also take into account relevant Council Recommendations and statements of Government policy and national strategies set out below.
- 3.3. RSR covers a wide range of practices with significantly different levels of risk. Therefore, the Environment Agency should employ a proportionate approach to permitting and setting conditions, including a consideration of the scale of the operation and the level of risks involved. Guidance on the permitting process is detailed in the Core Guidance.
- 3.4. The setting of conditions is at the Environment Agency's discretion, subject to the boundaries set out in this guidance and elsewhere (for instance, limitations on the exercise of the Environment Agency's discretion may arise from duties under the Environment Act 1995, conservation legislation, and the Human Rights Act 1998), except that it should only set any condition that duplicates that set by another regulator when required to do so by Government.
- 3.5. So that those persons who will be responsible for complying with the conditions are aware of them, a copy of the permit should be displayed at the premises, unless a Security Direction is in force which states that security requirements override this.

### **Council Directive 96/29/Euratom laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionising radiation (the 'Basic Safety Standards Directive', or BSSD).**

- 3.6. Radioactive Substances Regulation delivers some, but not all, of the BSSD requirements. In particular, Article 2 describes the scope of the Directive as applying to '...all practices which involve a risk from ionising radiation emanating from an artificial source or from a natural radiation source in cases where natural radionuclides have been processed in view of their radioactive, fissile or fertile properties...'. The activities which come within Article 2 are set out in paragraph 6 of Schedule 22. Other requirements of BSSD are implemented by the legislation listed in Chapter 1 above.

- 3.7. Any operator who wishes to engage in the keeping or use of radioactive material or the accumulation and disposal of radioactive waste requires a permit unless the material or waste is out of scope of RSR or there is an activity in relation to certain material or waste which is exempt from the need for a permit.
- 3.8. A decision as to whether any practice is 'justified' is not a matter for the Environment Agency. However, before the Environment Agency can grant a permit under these Regulations, they should be satisfied that the practice in question has been justified by the appropriate authorities or is an existing practice, as set out in the Justification of Practices Involving Ionising Radiation Regulations 2004. Appropriate Authorities are the relevant Secretaries of State, or Welsh Ministers, for the practice in question. For instance, the Department for Health will consider the justification of any medical practice involving the use of ionising radiation in England.
- 3.9. Article 6(3) of BSSD defines the optimisation principle. A permit applicant should demonstrate to the satisfaction of the Environment Agency how the optimisation principle will be applied to waste management and radioactive discharges. The Best Available Techniques (BAT) concept should be applied to waste management and other matters which could have an impact on radiation doses to members of the public.
- 3.10. The Environment Agency should ascertain that all reasonable measures have been taken to ensure that the dose limit for members of the public will not be exceeded in respect of regulated activities. The dose limit ('effective dose') is 1.0mSv/year.
- 3.11. In addition, the following dose constraints apply for any proposal for discharges of radioactive waste to the environment:
- 0.5 mSv/year from any permitted site
  - 0.3mSv/year from any single source.
- 3.12. Limits and notification levels may be set by the Environment Agency within permit conditions, for example, for the following reasons:
- So that the permit holder can demonstrate that operational controls are working satisfactorily.
  - So that the Environment Agency can be assured that the dose criteria are not being exceeded. (It is extremely unlikely that discharge limits will be set such that discharges at the limits will result in doses to the general public at, or close to, any relevant dose limits. However, this situation cannot be ruled out in all circumstances).
- 3.13. Discharge limits set out in permit conditions should be below the levels at which the dose limits and constraints would be exceeded, based on

a prospective dose estimation. A prospective dose estimation means a calculation or estimate, based on historical information for similar discharges or on mathematical modelling, which shows what the radiation dose to a member of the public is likely to be. Such estimates should be realistic, without being unduly pessimistic. In regulating the normal operation or decommissioning of a facility the Environment Agency should take into account the relevant operational fluctuations, trends and events that are expected to occur over the likely lifetime of the facility. Flexibility in setting discharge limits may also be necessary in those cases where other key Government objectives need to be met, for example the safe and timely decommissioning of redundant facilities, clean-up of the historic legacy of radioactive wastes, security of energy supply; maintaining Defence nuclear and non-nuclear capabilities; and the use of radionuclides in medicine.

- 3.14. Where future disposals are not known with certainty, for instance in decommissioning operations, some flexibility should be considered. Limits in such circumstances should be based on the available information, with an allowance for the degree of uncertainty and its significance.
- 3.15. The applicant should assess the likely impact of the permitted activity in terms of effective dose to members of the public. The Environment Agency will publish, and update as necessary, guidance on the calculation of prospective doses. However, applicants may use any other appropriate methods of dose calculation, which the Environment Agency should then consider as part of the permit determination process.
- 3.16. In the case of some complex sites, including all nuclear sites, the applicant should set out proposals for environmental monitoring in areas adjacent to the premises which could be affected by discharges directly to the environment. This is intended to support the dose assessment in the above paragraph. This could include monitoring for air quality, radionuclide concentrations in locally-grown foods, and radionuclide concentrations in vegetation.
- 3.17. Matters relating to management of radioactive waste disposal should be undertaken following consultation by an operator with a 'Qualified Expert'. 'Qualified Experts' are (from BSSD definition):

'Persons having the knowledge and training needed to carry out physical, technical or radiochemical tests enabling doses to be assessed, and to give advice in order to ensure effective protection of individuals and the correct operation of protective equipment, whose capacity to act as a qualified expert is recognised by the competent authorities. A qualified expert may be assigned the technical responsibility for the tasks of radiation protection of workers and members of the general public'.

- 3.18. For the purpose of these Regulations, the term Qualified Expert applies only to that expertise required for RSR.
- 3.19. The role of a Qualified Expert is to advise an operator. Operators should satisfy themselves that the Qualified Experts they have decided to consult are suitable for their specific facility and the radioactive waste they are generating. In some cases, for instance in the non-nuclear sector, a Qualified Expert may also be a Radiation Protection Adviser, appointed under the Ionising Radiations Regulations 1999, who possesses sufficient knowledge and experience of radioactive waste management. An operator will need to use suitably qualified and experienced persons to implement the advice provided by a Qualified Expert. The Environment Agency will publish, and from time to time update, specific guidance on the Qualified Expert requirement.

**Council Directive 2003/122/EURATOM on the control of high-activity sealed sources and orphan sources (HASS).**

- 3.20. The purpose of this Directive is to prevent exposure of workers and the public to ionising radiations arising from the inadequate control of high-activity sealed radioactive sources (HASS) and sources with no known owner ('orphan sources'). The requirements of this Directive have been implemented by RSR.
- 3.21. The requirements are as follows.
- All sealed sources should be stored securely. However, in the case of HASS and similar sources, the operator must make extra provisions, and the Environment Agency must be satisfied with these before granting a permit. These provisions are detailed in guidance produced for the purpose, (National Counter Terrorism Security Office: Security Requirements for Radioactive Sources, May 2008). However, the security arrangements actually in place at any premises **should not be detailed in the permit application.**
  - The Environment Agency will consult the relevant police force on the adequacy of the security arrangements proposed by an applicant and take into account any advice given by the police, when determining an application for a permit for a HASS or similar source.
  - Before any permit to keep and use HASS is issued, the Environment Agency must be satisfied that adequate financial or equivalent provisions have been made for safe management of the source when it becomes disused.
  - The Environment Agency needs to be satisfied that the operator's HASS record keeping and reporting, and the Environment Agency's own keeping of HASS records, are in accordance with the requirements of the Directive.

- The Environment Agency needs to be satisfied that the operator has written procedures in place to ensure that any person authorised to have access to HASS has been subject to a satisfactory identity check.

### **Council Recommendation 2004/2/Euratom. Standard approach to reporting radioactive discharges data.**

3.22. The European Commission has made recommendations for standardised reporting across all Member States; in particular, the way in which values at the limits of detection are reported. These recommendations have been adopted, in part, by Government. Government will, from time to time, write to the Environment Agency setting out the reporting requirements, and request that the Environment Agency collect the required information by way of permit conditions or other means.

### **Policy for the long term management of solid low level radioactive waste in the UK, 2007**

3.23. This Policy Statement advises the Environment Agency to ensure that holders of RSR permits which allow the disposal of radioactive waste apply the waste hierarchy as defined in the Statement. Such permit holders should prepare waste management plans. The Environment Agency is expected to deliver these, and other requirements, through the RSR application and determination process and by setting appropriate conditions in permits. The Environment Agency should also publish guidance on these matters.

3.24. For Low Level Radioactive Waste (LLW), operators should:

- not create waste if possible ('avoidance')
- reduce waste arisings by activity and/or mass ('minimisation')
- investigate decay storage, re-use and recycle prior to considering disposal

3.25. A radioactive waste management plan should be supplied as part of a permit application for radioactive waste disposal, explaining what waste management routes for solid waste have been considered and decided upon by the operator, a consideration of how the waste hierarchy has been applied, and how the proximity principle has been addressed.

3.26. The Proximity Principle is a key element of EU environmental and municipal waste management policy. It was introduced in Article 5 of the Waste Framework Directive (75/442/EEC as amended by Directive 91/156/EEC) in 1997, and is incorporated into UK waste strategy documents (see ref 11 in the Policy Statement). It means to enable waste to be disposed of in one of the nearest appropriate installations.

- 3.27. The principle of proportionality applies to radioactive waste management plans. A waste management plan may simply consist of a brief description of waste disposal options and considerations in the case of smaller sites. For complex sites (for instance, in the nuclear sector), a more detailed plan will be required.
- 3.28. Advice on suitable disposal routes for particular types of waste may be sought from a Qualified Expert or from the Environment Agency.
- 3.29. Those who control sites receiving Low Volume Very Low Level Radioactive Waste do not require a permit to dispose of radioactive waste at those sites under these Regulations. The permit of the consignor of the waste will allow direct disposal of this type of radioactive waste with conventional wastes.
- 3.30. For landfill sites receiving High Volume Very Low Level Radioactive Waste, the Environment Agency needs to be assured that the radiological capacity of the landfill is not exceeded. For this reason, the Environment Agency may decide that those who control such sites require a permit for the disposal of radioactive waste.
- 3.31. Certain LLW waste streams may be appropriate for 'controlled burial' arrangements. Controlled burial applies to circumstances where the VLLW thresholds have been exceeded, and yet the destination site can demonstrate that radiological protection criteria have been met. An operator of a landfill site where controlled burial is to take place must hold a permit for radioactive waste disposal under these Regulations.
- 3.32. The operator should carry out an options assessment setting out what options have been considered for the management of solid Low Level Radioactive Waste (LLW). An options assessment is any formal and recorded method by which the preferred solution is determined from a number of possible alternatives. Review of the assessment by the Environment Agency will be necessary.
- 3.33. Import and export of this category of radioactive waste will only be allowed if the Transfrontier Shipment of Radioactive Waste and Spent Fuel Regulations 2008 will be complied with. Shipments of LLW can only be made for certain specified purposes including the recovery of re-useable materials; or treatment to make its subsequent storage and disposal more manageable.
- 3.34. The presumption is that the wastes will be returned to the country of origin for disposal. Importers of radioactive waste should also consider whether the import is covered by an Open General Import Licence under the Import of Goods (Control) Order 1954 (S.I. 1954/23) and whether a specific licence is needed, although this not a matter for RSR or the Environment Agency.

- 3.35. In the case of a transfrontier shipment of radioactive waste, an authorisation under the Transfrontier Shipment of Radioactive Waste and Spent Fuel Regulations 2008 must be in place to cover the shipment

### **Managing Radioactive Waste Safely (MRWS) White Paper 2008**

- 3.36. This White Paper sets out how Government intends to take forward the process of partnership and voluntarism in relation to developing a geological disposal facility for higher-activity radioactive waste. In the White Paper, Government has said it is committed to ensure that there is appropriate regulation by the environmental regulators. This includes “staged regulation” in respect of any relevant facility. The relevant ‘radioactive substances activity’, as defined in the Regulations, is:

... “where a person carries out intrusive investigation work or other excavation, construction or building work (a) to determine the suitability of any premises; or (b) to enable the use of any premises, as a place that may be used wholly or substantially for the disposal of solid radioactive waste, subject to an environmental permit allowing such disposal.”

- 3.37. The Environment Agency should publish ‘Guidance on Requirements for Authorisation’ (GRA) for geological disposal facilities. The guidance should set out the requirements and environmental objectives that the developer/operator of a radioactive waste disposal facility would need to meet to be granted a permit.
- 3.38. The process for design, construction, operation and closure of a geological disposal facility for higher activity wastes is expected to be conducted over a long time period – probably many decades. In the MRWS White Paper, the Government accepted that development of a geological disposal facility will be subject to staged regulation by the environmental regulator. The Regulations provide the necessary powers to the Environment Agency to grant an environmental permit under a staged regulation process.
- 3.39. The MRWS White Paper makes clear that regulation is essential throughout the process of developing a geological disposal facility. It is recognised that the environmental permit issued early in the process will not contain any limits or conditions involving the use of radioactive materials or accumulation and disposal of radioactive waste except for the uses of such things as radioactive sources in borehole logging instruments, or radioactive materials for tracer experiments. However, decisions taken early in the process could have the effect of compromising the environmental safety case, which is ultimately necessary for disposal of radioactive waste to take place.
- 3.40. Site selection, in itself, is not subject to regulation by the Environment Agency under RSR. The Environment Agency should satisfy itself that a facility is, or can be, constructed and operated so as to meet the

principles and requirements set out in the GRA; they will not need to be satisfied that it is the 'best' site.

- 3.41. The process stages, that is, the 'hold points' or timings of regulatory submissions, are a matter for the Environment Agency to develop. However, the following considerations apply:
- The stages should be clear and well-defined (for instance: start of intrusive site investigation; start of underground studies; pre-construction; pre-operation; pre-closure, after closure etc.).
  - Although the overall regulatory process is the responsibility of the Environment Agency, it is expected that the process will be developed in co-operation with the developer of the facility.
  - The first stage should be before the start of intrusive site investigation at a candidate site for a geological disposal facility. The Environment Agency should require the developer to make an application for a permit and provide an appropriate supporting submission. The Environment Agency should undertake a regulatory assessment. The outcome of the assessment should be communicated to the developer, the host community and other stakeholders including the public. The Environment Agency will then consider whether or not to grant a permit to proceed with intrusive site investigation and will consult widely before reaching its decision.
  - The Environment Agency may require further submissions from the developer at each subsequent stage for regulatory review. Subject to satisfactory regulatory assessment, the Environment Agency may decide to grant a variation to the permit to allow the development programme to proceed to the next stage.
  - The permit determinations, and regulatory decisions based on them, should be subject to consultation. The Environment Agency should not make its final decisions until this consultation process is complete at each stage.
- 3.42. Staged regulation is principally intended for development of a geological disposal facility. The Environment Agency may decide to apply staged regulation to development of other types of radioactive waste disposal facilities such as near-surface facilities for LLW. In such cases, application of staged regulation should be proportionate to the nature of the hazard and complexity of the proposed development.

**National Discharges Strategy 2005 – 2030, and associated requirements of the Statutory Guidance on Discharges, 2009.**

- 3.43. This Strategy sets out what the Government wishes to see delivered in relation to its commitments under the OSPAR-Sintra agreement. Holders of RSR permits for discharge of radioactive wastes direct to the environment should apply the Best Available Techniques (BAT) principle to optimise discharges. The overall Strategy Objectives are to achieve progressive and substantial reductions in:

- radioactive discharges
- concentrations of radionuclides in the marine environment
- human exposures to ionising radiation resulting from radioactive discharges that are As Low As Reasonably Achievable (ALARA)

3.44. 'Best Available Techniques' is defined as:

Best Available Techniques (BAT) shall mean the most effective and advanced stage in the development of activities and their methods of operation which indicate the practical suitability of particular techniques for providing in principle the basis for emission limit values designed to prevent and, where that is not practicable, generally to reduce emissions and the impact on the environment as a whole:

'techniques' shall include both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned,

'available' techniques shall mean those developed on a scale which allows implementation in the relevant industrial sector, under economically and technically viable conditions, taking into consideration the costs and advantages, whether or not the techniques are used or produced inside the Member State in question, as long as they are reasonably accessible to the operator,

'best' shall mean most effective in achieving a high general level of protection of the environment as a whole.

3.45. This is the optimisation requirement as applied to discharges. The operator should demonstrate how the optimisation principle has been applied to discharges of radioactive waste, but the Statutory Guidance also states:

'Where the prospective dose to the most exposed group of members of the public is below 10 $\mu$ Sv/y from the overall discharges [of an operator] the Environment Agency should not seek to reduce further the discharge limits that are in place, provided the [operator] applies and continues to apply BAT'.

3.46. In order to demonstrate that the objectives of the national strategy are being met, reporting of discharges is necessary. An RSR applicant should set out how environmental discharges are to be measured or estimated.

3.47. Government requirements for reporting of discharges are as set out above, although the Environment Agency should require, if necessary and by way of permit conditions, additional reporting requirements for the purposes of ensuring that operational controls are working satisfactorily.

## The decommissioning of the UK nuclear industry's facilities 2004.

- 3.48. This policy sets out the objectives, including the environmental objectives, which need to be met during the decommissioning of the UK nuclear legacy. It sets out the Best Available Techniques principle with respect to decommissioning.
- 3.49. The objective of decommissioning is to 'remove the hazard the facility poses progressively, giving due regard to security considerations, the safety of workers and *the general public, and protecting the environment....*'. The italicised words are matters which need to be taken into consideration in RSR.
- 3.50. Best Available Techniques (BAT) should be used to optimise the volumes of radioactive wastes which are created, particularly Intermediate Level Waste (ILW).
- 3.51. Although there is a presumption that RSR should be used to meet the objectives of OSPAR (*'progressive and substantial reductions in discharges'*), the Government recognises that short term (that is, time limited) increases in discharges of some radionuclides may be inevitable when dealing with decommissioning and legacy wastes. However, applications for such increases should be supported by arguments to show that they represent the optimal result from appropriate option studies (that is, they represent BAT). When a facility ceases to be 'operational', a variation to the permit will normally be required; this is mainly because the discharges profile for the facility will change, and the permit should reflect this new profile, for instance by setting out new discharge limits and/or reporting requirements.
- 3.52. Any new facility in the nuclear sector should be designed and built so as to minimise decommissioning and associated waste management and costs. This means that, for a new RSR permit application for a new nuclear facility, the applicant should show how such matters as decommissioning and waste minimisation have been taken into account at the design stage.

## 4. Other Requirements

### Restrictions on waste disposal routes

- 4.1. Waste disposal overseas, including the disposal or transfer of Spent Nuclear Fuel (SNF), should only be allowed following consideration by the Environment Agency that TFS will be complied with. Separate arrangements apply under TFS for Environment Agency consideration, involving notification and approval. That is, the arrangements are not covered by RSR. There is an overall presumption that wastes will not be sent overseas for disposal; or that overseas wastes will not be imported to the UK for disposal. The Transfrontier Shipment Directive requires that any country which is to be the recipient of exported waste should have the *‘technical, legal and administrative resources to manage the waste safely’*.

### Environmental radiation protection

- 4.2. It has become increasingly clear that there can be a need for specific assessments of the radiological impact on species other than humans - in particular to provide assurances that the requirements of the Environment Act 1995, and other legislation such as the Conservation (Natural Habitats &c) Regulations 1994 which implement Council Directive 92/43/EEC on “the conservation of natural habitats and of wild fauna and flora”, will be met.
- 4.3. The Environment Agency should therefore consider the need for assessments of potential radiation doses to flora and fauna, prior to granting or varying a permit, and may request an applicant to carry out such assessments. The Environment Agency should contribute, and have regard, to national and international development work on the standards to be applied for protecting non-human species from the harmful effects of ionising radiation.

### NAIR participants

- 4.4. For participants in the National Arrangements for Incidents involving Radioactivity (NAIR) scheme, the permit conditions relating to storage of waste arising from NAIR incidents should be flexible, so as to appropriately balance the requirements of security and environmental protection, whilst recognising the important contribution of NAIR participants to both of these.

### Working with operators

- 4.5. The Government expects that the Environment Agency should work in an effective manner with all operators, offering advice on technical, compliance and, where appropriate, policy issues (but not legal

matters) to operators as appropriate. For this reason, early contact with the Environment Agency by an applicant is desirable. Such contact can lead to efficiencies (time and cost savings) for both the Environment Agency and the applicant. Any advice at, for instance, the pre-application stage will be given by the Environment Agency without prejudice to any future regulatory decisions.

- 4.6. To support the above contact, the Government expects that the Environment Agency will publish procedural and technical guidance on those matters which it considers necessary from time to time. Operators are encouraged to communicate with the Environment Agency on those issues for which they feel guidance to be necessary, and on matters within existing guidance which could be enhanced or improved. Likely costs incurred by the Environment Agency for guidance should be taken into account when proposing the scale of regulatory charges referred to in the Core Guidance.
- 4.7. Contact may take place at a corporate level (that is, involving a number of sites under one corporate management) as well as with individual site operators. The latter may be more effective and efficient in certain circumstances. Broader contacts may be established through industry or trade associations, or special interest industry groups concerned with a particular topic of regulatory importance.
- 4.8. The Environment Agency may charge for advice to operators under its RSR permitting charging scheme, as the purpose of such advice is to improve compliance with permits and achieve related environmental benefits.

### **Inter-site transfer of waste**

- 4.9. For solid waste disposals to another permitted operator, it is no longer necessary in most cases to specify in the permit the specific site at which the waste will ultimately be disposed of. Permits can allow transfer to any site where the operator of that site holds a permit to accumulate or dispose of the relevant type of waste. Records of waste transfers must be kept by both the consignor and the receiving site operator.
- 4.10. The operator consigning waste should have in place contractual arrangements which have been established between them and the waste disposal / storage company (It is permissible to establish a contract or contracts with a waste disposal *company*. It is not necessary to specify any particular *site* which will receive the waste). These contracts, transfer records and permits may be required for inspection by the Environment Agency, either at the application stage or any subsequent stage of regulatory activity e.g. during inspections.
- 4.11. To ensure the current level of transparency is maintained, the Environment Agency should ensure that permits contain a condition

requiring those who receive radioactive waste for the first time from a particular consignor to inform their local authority before they receive the waste.

## **Research**

- 4.12. The Environment Agency may, from time to time, commission or otherwise carry out research under a published research programme. An appropriate level of research effort and funding should be aimed specifically at answering questions related to its functions under these Regulations; for instance, the application of Best Available Techniques to a particular practice.

## **Commercial Confidentiality arrangements and national security considerations**

- 4.13. The Core Guidance sets out national security and confidentiality arrangements. These arrangements apply equally to RSR. The relevant Secretaries of State or Welsh Ministers may decide that certain matters are not to be put in the public domain. Whenever such decisions are taken, Directions will be issued to the Environment Agency.
- 4.14. Government Directions will be in place prior to these Regulations coming into force.

## **Regulation in collaboration with HSE**

- 4.15. Most premises which are subject to RSR are also subject to IRR99. For this reason, co-operation between the regulator for IRR – the Health and Safety Executive (HSE) – and the Environment Agency is essential. In order to ensure that this co-operation is effective, the Environment Agency should:
- agree with HSE which permit application that may be relevant to both regulatory regimes they wish to be consulted on.
  - so far as possible, arrange for joint inspection visits whenever matters of importance to both regulators are involved.
  - so far as possible, align regulatory requirements to ensure consistent requirements are placed on operators and potential conflicts are avoided.
  - notify HSE of any matter relating to IRR which comes to their attention; reciprocal arrangements also apply.
  - set out these principles in a Memorandum of Understanding (MoU).
- 4.16. Operations on a nuclear licensed site need to be managed such that occupational safety, prevention of accidents and releases, and routine discharges of radioactivity to the environment are all taken into account. For these reasons, close co-operation between HSE and the

Environment Agency is important. An additional consideration relates to the Government's Better Regulation Agenda, whereby double regulation should be avoided as far as possible.

4.17. In order to ensure that this co-operation is effective, the Environment Agency should:

- consult with HSE on any permit application and conditions which may have relevance to both regulatory regimes. The Environment Agency will, in turn, be consulted on any changes to site nuclear licence conditions which are relevant to RSR.
- consult HSE on any new or revised guidance for nuclear licensed sites which may be of relevance to HSE duties.
- so far as possible, arrange for joint inspection visits whenever matters of importance to both regulators are involved.
- so far as possible, ensure that regulatory requirements set out in either regime do not conflict with each other.
- for new installations, arrange (so far as possible) for a single application covering the requirements of both regulatory regimes. (In the case of proposed new nuclear generating capacity, such arrangements are already in place).
- notify HSE of any matter relating to nuclear site licence conditions which comes to their attention; reciprocal arrangements also apply.
- not apply conditions in permits which are already covered by NIA requirements (e.g. relating to occupational exposure).
- ensure permit conditions support a common regulatory approach and set common expectations of operators, as far as possible.
- set out these principles in a Memorandum of Understanding (MoU) and working level agreements with HSE.

### **Crown exemptions and special arrangements for MoD sites.**

4.18. The Crown is bound by these Regulations generally, but is not bound by the RSR provisions when carried out on premises used for defence purposes or occupied by visiting forces. Nevertheless, MoD voluntarily ensures equivalent compliance with the RSR provisions.

4.19. The Environment Agency should:

- Determine applications from MoD in the same way as for non-MoD facilities.
- Establish conditions in permissions given to MoD and inspect against these conditions.
- Provide advice on compliance to MoD.
- Set these matters out in a Memorandum of Understanding (MoU) and working level agreements with the MoD.

## **Cost recovery on nuclear licensed sites**

- 4.20. For sites licensed under the Nuclear Installations Act, cost recovery should be based directly on regulatory expenses incurred with respect to the particular site in question. In this case, the Environment Agency should estimate the likely costs on an annual basis and present these estimates to the permit holder prior to any costs being incurred.
- 4.21. For some nuclear licensed sites and for some issues, the charges can be based at a company, rather than an individual site, level. This approach, which is intended to lead to efficiency improvements (and hence cost reductions) should be implemented by the Environment Agency wherever possible, by agreement with the company.

## **Devolution**

- 4.22. These Regulations apply in England and Wales. The Basic Safety Standards Directive, other Directives, and UK policies on radioactive wastes are given effect in the devolved administrations through the Radioactive Substances Act 1993 and Directions and guidance given to the environmental regulators in these administrations. The Environment Agency should engage with counterparts in Northern Ireland and Scotland to ensure, so far as possible, that the regulatory approach throughout the UK is harmonised.

## Glossary and Acronyms

[In the final document this glossary will be extracted and will form part of the overall Environmental Permitting List of Guidance and Glossary.]

<b>Term</b>	<b>Meaning</b>
ALARA	As Low as Reasonably Achievable (economic and social factors being taken into account). Radiation doses comply with ALARA when they have been reduced to a level that represents a balance between dose and other factors (including economics). This is a statement of the optimisation principle.
BAT	Best Available Techniques.
DECC	Department of Energy and Climate Change
Defra	Department for the Environment, Food and Rural Affairs This is the Government department with specific responsibilities for EPR, including RSR.
EPR	Environmental Permitting Regulations
GRA	Guidance on Requirements for Authorisation Environment Agency guidance detailing the environmental objectives which an underground facility for the permanent disposal of radioactive waste must achieve. There are two versions of the GRA: one for deep disposal of higher activity radioactive waste; and one for shallow disposal of lower activity radioactive waste.
HASS	High Activity Sealed Sources
HLW	High Level Radioactive Waste
HSE	Health and Safety Executive Regulator with responsibilities for, inter-alia, IRR and NIA65.
HVLLW	High Volume Very Low Level Radioactive Waste
ILW	Intermediate Level Radioactive Waste
IRR	Ionising Radiations Regulations 1999. These Regulations, regulated by HSE, implement significant requirement of the BSSD.
Justification	The benefits and detriments of any practice which could result in exposure to ionising radiation must be assessed prior to the practice being permitted. If the benefits outweigh the detriments, the practice is justified.
LLW	Low Level Radioactive Waste
LLWR	(National) Low Level waste Repository
LVLLW	Low Volume Very Low Level Radioactive Waste
MoU	Memorandum of Understanding

<b>Term</b>	<b>Meaning</b>
MRWS	The Managing Radioactive Waste Safely (Programme) The Government programme which delivers Government responsibilities for the permanent disposal of higher activity radioactive waste.
NCTSO	National Counter Terrorism Security Office The organisation responsible for providing guidance and advice on security matters; in the case of RSR, advice on the security of radioactive materials.
Options assessment	Any formal and recorded method by which the 'best' solution is determined from a number of possible alternatives.
OSPAR	Oslo-Paris Convention for the protection of the marine environment in the north-east Atlantic. The UK is signatory to this Convention, which commits the UK to reducing discharges of pollution, including radioactive substances, to the sea and hence reducing marine concentration of pollutants.
Proximity Principle	Wastes, including radioactive wastes, should be disposed of as close as practicable to their point of origin.
REP	Radioactive Substances Regulation – Environmental Principles. Environment Agency guidance which sets out, at a high level, the principles which the Environment Agency applies to RSR.
RSR	Radioactive Substances Regulation
SNF	Spent Nuclear Fuel
Sustainable Development	Development which meets the needs of the present without compromising the ability of future generations to meet their own needs. Specific to radioactive waste, the Government's policy is to 'ensure that radioactive waste is managed safely and that the present generation, which receives the benefit of nuclear power, meets its responsibilities to future generations'.
WAG	Welsh Assembly Government WAG has equivalent responsibilities to DECC for RSR in Wales.
Waste Hierarchy	A principle of waste management which requires that (in order of preference) wastes be: <ul style="list-style-type: none"> <li>• Avoided</li> <li>• Minimised</li> <li>• Reused</li> <li>• Recycled</li> <li>• Disposed of</li> </ul>

# Annex 1 - Schedule 22 to the Environmental Permitting Regulations

## SCHEDULE 22

Regulation 35(p)

### Provision in relation to radioactive substances activities

#### PART 1

##### Application

##### Application

1. This Schedule applies in relation to radioactive substances activities that fall within the class of regulated facility mentioned in regulation 8(1)(f).

#### PART 2

##### Interpretation

##### Interpretation

2. In this Schedule—

“article” includes a part of an article;

“the Basic Safety Standards Directive” means Council Directive 96/29/EURATOM<sup>(1)</sup> laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionising radiation;

“contamination” means where a substance or article is so affected by—

- (a) absorption, admixture or adhesion of radioactive material or radioactive waste; or
- (b) the emission of neutrons or ionising radiations,

as to become radioactive or to possess increased radioactivity;

“disposal” in relation to waste includes its removal, deposit, destruction, discharge (whether into water or into the air or into a sewer or drain or otherwise) or burial (whether underground or otherwise) and “dispose of” must be construed accordingly;

“mobile radioactive apparatus” means any apparatus, equipment, appliance or other thing which is radioactive material and—

- (c) is constructed or adapted for being transported from place to place; or
- (d) is portable and designed or intended to be used for releasing radioactive material into the environment or introducing it into organisms;

“nuclear site” means—

- (e) any site in respect of which a nuclear site licence is for the time being in force; or
- (f) any site in respect of which, after the revocation or surrender of a nuclear site licence, the period of responsibility of the licensee has not yet come to an end,

and “licensee” when used in relation to a nuclear site and “period of responsibility” have the same meaning as in the Nuclear Installations Act 1965<sup>(2)</sup>;

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<sup>(1)</sup> OJ No L 159, 29.6.1996, p 1. Corrigendum at L 314 , 04/12/1996 P. 0020

“premises” includes any land, whether covered by buildings or not, including any place underground and any land covered by water;

“substance” means any natural or artificial substance, whether in solid or liquid form or in the form of a gas or vapour;

“undertaking” includes any trade, business or profession and—

(g) in relation to a public or local authority, includes any of the powers or duties of that authority, and

(h) in relation to any other body of persons, whether corporate or incorporate, includes any of the activities of that body;

“waste” has the meaning given in paragraph 3.

### Interpretation: radioactive material

3.—(1) In this Schedule, “radioactive material” means anything which, not being waste, is either a substance to which this sub-paragraph applies or an article made wholly or partly from, or incorporating, such a substance.

(2) Sub-paragraph (1) applies to any substance which—

(a) contains an element specified in the first column of the table in sub-paragraph (4), in such a proportion that the number of becquerels of that element contained in the substance, divided by the number of grams which the substance weighs, is a number greater than that specified in relation to that element in the appropriate column of that table; or

(b) possesses radioactivity which is wholly or partly attributable to a process of nuclear fission or other process of subjecting a substance to bombardment by neutrons or to ionising radiations, not being a process occurring in the course of nature, or in consequence of the disposal of radioactive waste, or by way of contamination in the course of the application of a process to some other substance.

(3) In sub-paragraph (2)(a) “the appropriate column”—

(a) in relation to a solid substance, means the second column;

(b) in relation to a liquid substance, means the third column;

(c) in relation to a substance which is a gas or vapour, means the fourth column.

(4) The table referred to in sub-paragraph (2)(a)—

### Specified elements

<i>Element</i>	<i>Becquerels per gram (Bq g (to the power of -1))</i>		
	Solid	Liquid	Gas or Vapour
1. Actinium	0.37	7.40 x (10 to the power of -2)	2.59 x (10 to the power of -6)
2. Lead	0.74	3.70 x (10 to the power of -3)	1.11 x (10 to the power of -4)
3. Polonium	0.37	2.59 x (10 to the power of -2)	2.22 x (10 to the power of -4)
4. Protoactinium	0.37	3.33 x (10 to the power of -2)	1.11 x (10 to the power of -6)
5. Radium	0.37	3.70 x (10 to the power of -4)	3.70 x (10 to the power of -5)
6. Radon	-	-	3.70 x (10 to the power of -2)
7. Thorium	2.59	3.70 x (10 to the power of -2)	2.22 x (10 to the power of -5)
8. Uranium	11.1	0.74	7.40 x (10 to the power of -5)

(<sup>2</sup>) 1965 c. 57.

**Interpretation: waste**

**4. In this Schedule—**

- (a) “waste” includes any substance which constitutes scrap material or an effluent or other unwanted surplus substance arising from the application of any process, and also includes any substance or article which requires to be disposed of as being broken, worn out, contaminated or otherwise spoilt; and
- (b) any substance or article which, in the course of carrying on of any undertaking, is discharged, discarded or otherwise dealt with as if it were waste must be presumed to be waste unless the contrary is proved.

**Interpretation: radioactive waste**

**5. In this Schedule, “radioactive waste” means waste which consists wholly or partly of—**

- (a) a substance or article which, if it were not waste, would be radioactive material;
- (b) a substance or article which has been contaminated in the course of the production, keeping or use of radioactive material, or by contact with or proximity to other waste falling within paragraph (2?) or this paragraph.

**Interpretation: radioactive substances activity**

**6.—(1)** Subject to paragraphs 6 and 7, “radioactive substances activity” means an activity described in sub-paragraph (2), (4), (5) or (6).

(2) A radioactive substances activity is carried on where a person uses premises for the purposes of an undertaking and that person—

- (a) except where sub-paragraph (5) applies, keeps or uses radioactive material on those premises;
- (b) disposes of radioactive waste on or from those premises; or
- (c) accumulates radioactive waste on those premises,

knowing or having reasonable grounds for believing the material or waste to be radioactive material or radioactive waste.

(3) For the purposes of sub-paragraph (2)(c), where—

- (a) radioactive material is produced, kept or used on any premises;
- (b) any substance arising from the production, keeping or use of that material is accumulated in a part of the premises appropriated for the purpose; and
- (c) that substance is retained there for a period of not less than three months,

that substance must, unless the contrary is proved, be presumed to be radioactive waste.

(4) A radioactive substances activity is carried on where, in the course of a person carrying on an undertaking, that person—

- (a) receives radioactive waste for the purposes of disposing of that waste; and
- (b) knows or has reasonable grounds for believing the waste to be radioactive waste.

(5) A radioactive substances activity is carried on where a person keeps or uses mobile radioactive apparatus for—

- (a) testing, measuring or otherwise investigating any of the characteristics of substances or articles; or
- (b) releasing quantities of radioactive material into the environment or introducing such material into organisms.

(6) A radioactive substances activity is carried on where a person carries out intrusive investigation work or other excavation, construction or building work—

- (a) to determine the suitability of any premises; or
- (b) to enable the use of any premises,

as a place that may be used wholly or substantially for the disposal of solid radioactive waste, subject to an environmental permit allowing such disposal.

(7) In sub-paragraph (6)(b), “intrusive investigation work” means the drilling of boreholes into, or excavation of, sub-soil or rock to determine geological or hydrogeological conditions.

#### **Nuclear sites**

7.—(1) Paragraph 5(2)(a) does not apply to the activity carried on by a licensee of a nuclear site on any premises situated on that site at any time—

- (a) while a nuclear site licence is in force in respect of that site; and
- (b) after the revocation or surrender of such a licence but before the period of responsibility of the licensee has come to an end.

(2) In respect of any premises which—

- (a) are situated on a nuclear site; but
- (b) have ceased to be used for the purposes of an undertaking carried on by the licensee,

paragraph 5(2)(b) applies to those premises as if the premises were used for the purposes of an undertaking carried on by the licensee.

(3) Paragraph 5(2)(c) does not apply to the accumulation of radioactive waste on any premises situated on a nuclear site.

#### **Vehicles, vessels and aircraft**

8. In determining whether any radioactive material is kept or used on any premises, no account must be taken of any radioactive material kept or used in or on any railway vehicle, road vehicle, vessel or aircraft if either—

- (a) the vehicle, vessel or aircraft is on the premises in the course of a journey; or
- (b) in the case of a vessel which is on those premises otherwise than in the normal course of a journey, the material is used in propelling the vessel or is kept in or on the vessel for use in propelling it.

## **PART 3**

### **The Basic Safety Standards Directive**

#### **SECTION 1**

#### *Exposures and doses*

9. In respect of a radioactive substances activity that relates to radioactive waste, the regulator must exercise its relevant functions to ensure that—

- (a) all exposures to ionising radiation of any member of the public and of the population as a whole resulting from the disposal of radioactive waste are kept as low as reasonably achievable, taking into account economic and social factors; and
- (b) the sum of the doses resulting from the exposure of any member of the public to ionising radiation should not exceed the dose limits set out in Article 13 of the Basic Safety Standards Directive subject to the exclusions set out in Article 6(4) of that Directive.

10.—(1) In exercising those relevant functions in relation to the planning stage of radiation protection, the regulator must have regard to the following maximum doses to individuals which may result from a defined source—

- (a) 0.3 millisieverts per year from any source from which radioactive discharges are first made on or after 13th May 2000; or
- (b) 0.5 millisieverts per year from the discharges from any single site.

11. In exercising those relevant functions, the regulator must observe the following requirements of the Basic Safety Standards Directive—

- (a) in estimating effective dose and equivalent dose, Articles 15 and 16;
- (b) in estimating population doses, Article 45; and
- (c) in relation to the responsibilities of undertakings, Article 47.

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### SECTION 2

#### *Interventions*

#### **Radioactive waste: power of the Secretary of State to provide facilities for disposal or accumulation**

**12.**—(1) If it appears to the Secretary of State that adequate facilities are not available for the safe disposal or accumulation of radioactive waste, the Secretary of State may—

- (a) provide such facilities; or
- (b) make arrangements for their provision by such persons as the Secretary of State may think fit.

(2) Before exercising the power under sub-paragraph (1), the Secretary of State must consult with—

- (a) any local authority in whose area the facilities would be situated; and
- (b) such other public or local authorities (if any) as appear to the Secretary of State to be proper to be consulted.

(3) Reasonable charges for the use of any facilities provided under sub-paragraph (1) may be made by—

- (a) the Secretary of State; or
- (b) the person providing such facilities, unless the arrangements made by the Secretary of State with that person provide to the contrary.

#### **Radioactive waste: power of disposal by the regulator**

**13.**—(1) Sub-paragraph (2) applies if there is radioactive waste on any premises and the regulator is satisfied that the waste ought to be disposed of but by reason that—

- (a) the premises are unoccupied;
- (b) the occupier is absent or insolvent; or
- (c) for any other reason,

it is unlikely that the waste will be lawfully disposed of.

(2) Where there is radioactive waste to which sub-paragraph (1) applies, the regulator may dispose of that waste and may recover from—

- (a) the occupier of the premises; or
- (b) if the premises are unoccupied, the owner of the premises,

any expenses it reasonably incurs in that disposal.

(3) In relation to sub-paragraph (2)—

- (a) “owner” has the same meaning it has under section 343 of the Public Health Act 1936<sup>(3)</sup>; and
- (b) the provisions of section 294 of that Act (which limits the liability of owners who are only agents or trustees) apply but as if reference in that section to a council recovering expenses under that Act were to the regulator recovering expenses under sub-paragraph (2).

## PART 4

### The HASS Directive

#### SECTION 1

#### *Security of sources*

#### **Interpretation**

**14.** In this Part—

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<sup>(3)</sup> 1936 c. 49.

“the HASS Directive” means Council Directive 2003/122/EURATOM<sup>(4)</sup> on the control of high-activity sealed radioactive sources and orphan sources;

“high-activity source” has the same meaning as it has in the HASS Directive but excluding any such source once its activity level has fallen below the exemption levels specified in column 2 of Table A to Annex I to the Basic Safety Standards Directive;

“high-activity or similar source” means—

- (a) a high-activity source; or
- (b) such other sealed source which, in the opinion of the regulator, is of a similar level of potential hazard to a high-activity source;

“orphan source” has the same meaning as it has in the HASS Directive.

### **Site security: inspection**

**15.**—(1) Subject to sub-paragraph (2), in exercising relevant functions in relation to a radioactive substances activity, the regulator must comply with sub-paragraph (3) where a high-activity or similar source is, or will be, kept, used, disposed of or accumulated on any premises.

(2) Sub-paragraph (1) does not apply where the premises are, or are part of, a nuclear site.

(3) In considering if the measures taken, or to be taken, by the operator ensure the adequate security of any premises, the regulator must where appropriate inspect those premises.

(4) Where the regulator inspects any premises under sub-paragraph (3), it may be accompanied by such other persons as are appropriate to assist it in assessing the measures.

(5) An operator must permit the regulator (and any person accompanying it) reasonable access to any premises the regulator wishes to inspect under sub-paragraph (3).

(6) If the operator fails to comply with sub-paragraph (5), the regulator may refuse the application or revoke the permit insofar as it relates to the sources referred to in sub-paragraph (1).

### **Site security: security measures and advice**

**16.**—(1) In exercising relevant functions in relation to a radioactive substances activity, the regulator must comply with sub-paragraph (2) where a high-activity or similar source is, or will be, kept, used, disposed of or accumulated on any premises.

(2) The regulator—

- (a) must be satisfied that there are in place adequate measures concerning site security, including the security measures in sub-paragraph (3), as are appropriate to the source and premises in question;
- (b) must consult the police, security services or other appropriate persons on site security;
- (c) must have regard to any advice given by them, if it is issued within such time as the regulator believes is reasonable before it exercises a relevant function; and
- (d) must attach to the environmental permit appropriate conditions concerning site security.

(3) The security measures referred to in sub-paragraph (2)(a) are—

- (a) ensuring the physical security of the premises, including alarm and detection systems and retaining documentary evidence of those measures;
- (b) possessing measures which are evidenced in writing—
  - (i) to prevent unauthorised access to, or loss or theft of, a high-activity or similar source;
  - (ii) to detect such matters; and
  - (iii) to review and enhance the physical security of the premises in response to any increased risk of unauthorised access, loss or theft taking place;
- (c) following written procedures to ensure that before a person is authorised to have access to a high-activity or similar source—
  - (i) that person has been subjected to, and has passed, checks to verify their identity; and

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<sup>(4)</sup> OJ No L 346, 31.12.2003, p 57.

## DRAFT GUIDANCE FOR CONSULTATION

- (ii) satisfactory written references have been obtained which confirm, as far as reasonably practicable, that there is no information to indicate that the person presents any security risk to the sources; and
- (d) keeping secure, and preventing unauthorised access to, information—
  - (i) relating to a high-activity or similar source; and
  - (ii) on the measures referred to in paragraphs (a), (b) and (c).

### SECTION 2

#### *Advice and assistance in relation to orphan sources*

#### **Advice and assistance in respect of orphan sources**

- 17.**—(1) The relevant person referred to in sub-paragraph (2) must ensure that—
- (a) in relation to the public and workers, specialised technical advice and assistance is promptly made available to such persons who are not normally involved in operations subject to radiation protection requirements and who suspect the presence of an orphan source; and
  - (b) the primary aim of such advice and assistance is—
    - (i) the safety of the source; and
    - (ii) the protection of the public and workers from radiation.
- (2) For the purposes of sub-paragraph (1), in relation to the protection of—
- (a) workers, the relevant person means the Secretary of State;
  - (b) the public (except workers), the relevant person means—
    - (i) in respect of England, the Secretary of State;
    - (ii) in respect of Wales, the Welsh Ministers.

### SECTION 3

#### *Exercise of relevant functions and matters in relation to orphan sources*

#### **General**

- 18.**—(1) In exercising relevant functions in relation to a radioactive substances activity, the regulator must comply with the following provisions of the HASS Directive—
- (a) Articles 3(2) & (3);
  - (b) Article 4;
  - (c) Articles 5(1) & (2);
  - (d) Article 6; and
  - (e) subject to sub-paragraph (2), Articles 7(1) and (2).

(2) In relation to a high-activity source placed on the market before 31st December 2005, sub-paragraph (1)(e) of this paragraph must instead refer to the provisions contained in Article 16(1)(b).

#### **Records and inspections**

- 19.** In relation to a high-activity source, the regulator must—
- (a) keep records of those matters—
    - (i) required by Articles 5(3) and (4) of the HASS Directive; and
    - (ii) notified to it under Article 6 of that Directive;and
  - (b) establish or maintain a system of inspections to enforce the following provisions of the HASS Directive—
    - (i) Articles 3, 4, 5 and 6; and
    - (ii) as appropriate, Articles 7(1) and (2) or Article 16(1)(b).

## **Training and information**

**20.** In relation to a high-activity source, the appropriate training and adequate information required by the Ionising Radiations Regulations 1999<sup>(5)</sup> must include—

- (a) specific requirements for the safe management of such a source;
- (b) particular emphasis on the necessary safety requirements in relation to such a source; and
- (c) specific information on possible consequences of the loss of adequate control of such a source,

and such training and information must be repeated at regular intervals and documented, with a view to preparing the employees and other persons referred to in those Regulations for such matters.

## **Orphan sources**

**21.—**(1) The regulator must be prepared or have made provision, including assignment of responsibilities, to recover any orphan source and must have drawn up appropriate response plans and measures.

(2) The regulator has the power to recover any expenses reasonably incurred by it (or by a person on its behalf) in the recovery and disposal of an orphan source from—

- (a) the person carrying on the radioactive substances activity involving that source; or
- (b) the occupier or owner of the premises where the source is located.

# **PART 5**

## **Conditions in environmental permits**

### **Transfer of radioactive waste: notice to local authorities**

**22.—**(1) Sub-paragraph (2) applies where—

- (a) an environmental permit exists at the date these Regulations come into force; and
- (b) the radioactive substances activity relates to radioactive waste.

(2) Where—

- (a) the operator of a regulated facility (“facility A”) intends to receive radioactive waste from another regulated facility (“facility B”);
- (b) the operator of facility A has not previously received radioactive waste from facility B; and
- (c) facility A and facility B are not in the same local authority area,

it is a condition attached to the environmental permit held by the operator of facility A that the operator must give notice in accordance with sub-paragraph (3) before receiving the waste.

(3) The notice must be given to the local authority where facility A is situated and must—

- (a) include the name of the operator of facility A and the address of that facility;
- (b) include the name of the operator of facility B and the address of that facility;
- (c) give an adequate description of the radioactive waste to be received;
- (d) state when that waste is expected to be received for the first time; and
- (e) except in cases of emergency, be given at least 7 days before receipt of the waste.

(4) The regulator must impose an environmental permit condition equivalent to that mentioned in sub-paragraph (2)—

- (a) where a permit is granted on or after the date these Regulations come into force; and
- (b) the radioactive substances activity relates to radioactive waste.

(5) If it thinks fit, the regulator may vary or remove an environmental permit condition—

- (a) mentioned in sub-paragraph (2); or

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<sup>(5)</sup> S.I. 1999/3232.

- (b) imposed under sub-paragraph (4).

**Posting on premises of environmental permits**

**23.**—(1) Sub-paragraph (2) applies—

- (a) where an environmental permit is granted on or after the date these Regulations come into force; and
- (b) the permit relates to a radioactive substances activity described in paragraph 5(2) of Part 2 of this Schedule.

(2) Subject to sub-paragraph (3), the regulator must ensure that conditions are attached to the permit such that the operator is required—

- (a) to keep copies of the permit posted on those parts of the premises which are or may be affected by the matters set out in the permit; and
- (b) to ensure that the permit is posted—
  - (i) in such characters; and
  - (ii) in such positions,so as to be conveniently read by persons having duties on those premises.

(3) For a permit that relates to a radioactive substances activity described in paragraph 5(2) of Part 2 of this Schedule, the regulator must vary or remove—

- (a) conditions referred to in sub-paragraph (2) of this paragraph; or
- (b) similar conditions attached to an environmental permit which exists at the date these Regulations come into force,

where that variation or removal is required on the grounds of national security pursuant to a direction or guidance issued to the regulator, whether that direction or guidance is issued under these Regulations or under any other enactment.