



Environmental Permitting Regulations (England and Wales) 2010

enhancing... improving... cleaning... restoring...
changing... tackling... protecting... reducing...
create a better place... influencing... inspiring...
advising... managing... adapting...

**How to comply with your
environmental permit for radioactive
substances on a nuclear licensed site**

Record of changes

Version	Date	Change
1.0	April 2010	Issued for launch of EPR phase 2

Published by:

Environment Agency
Rio House
Waterside Drive, Aztec West
Almondsbury, Bristol BS32 4UD
Tel: 0870 8506506
Email: enquiries@environment-agency.gov.uk
www.environment-agency.gov.uk

© Environment Agency

All rights reserved. This document may be reproduced with prior permission of the Environment Agency.

GEHO0410BSHS –E-E

A QUICK GUIDE

.
This document provides guidance to holders of an environmental permit for radioactive substances on nuclear licensed sites, about the meaning of the permit conditions.

Index

Introduction	5
1 Management	7
2 Operations	9
3 Disposals of radioactive waste and monitoring	15
4 Information	20
Annex A: Definition of BAT	24

Introduction

This guidance note is about how you protect people and the environment when you dispose of radioactive waste on or from a nuclear licensed site. It applies to nuclear site licensees, and to tenants who keep or use open sources. It explains in general terms your permit conditions, so that you understand what you need to do to comply with those conditions and with the permit as a whole. Tenants and licensees who keep or use mobile radioactive apparatus should have regard to our separate advice on that subject.

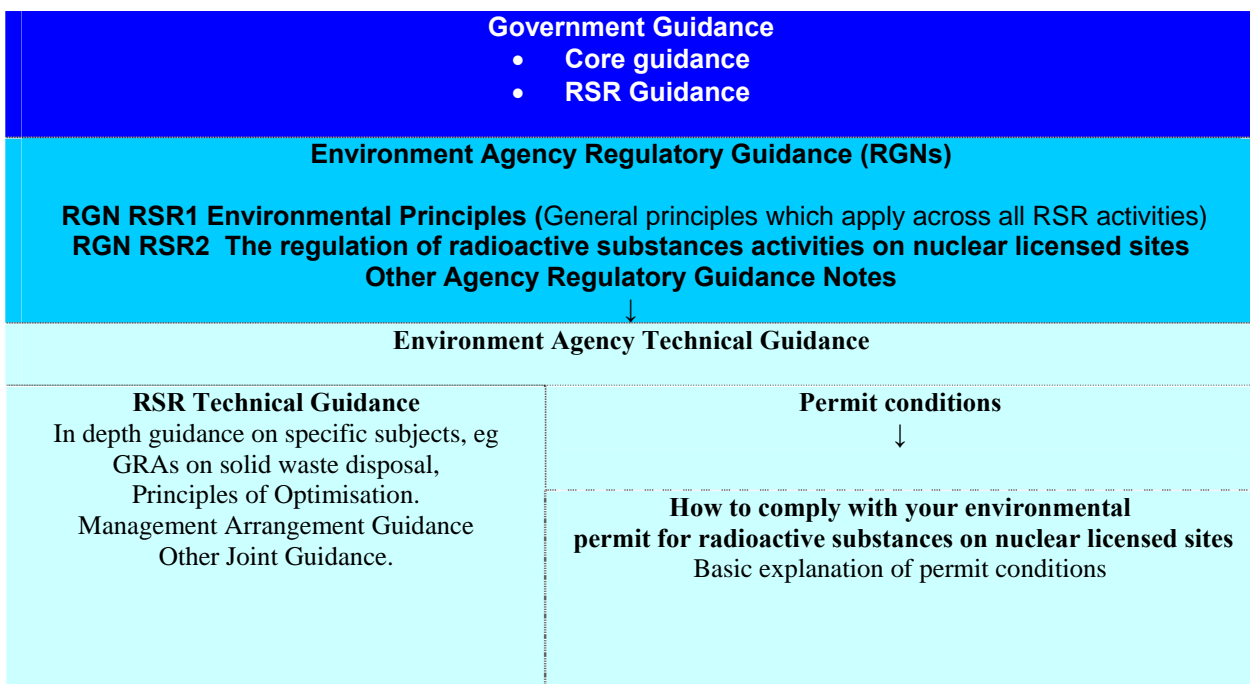
You may use this guidance to help understand your responsibilities under the permit, to help you make an application and comply with the conditions of an environmental permit issued to you.

How our Radioactive Substances Regulation (RSR) guidance fits together

The Government has produced guidance on the Environmental Permitting (England and Wales) Regulations 2010 (“the EPR”) which describes the general permitting and compliance requirements (the “Core Guidance”) and specific guidance on Radioactive Substances Regulation (RSR). We are providing guidance on our regulatory approaches (“Regulatory Guidance”) and on technical matters for the activities we regulate under the Regulations. You will find references to Government guidance and our guidance on our [RSR environmental permitting guidance page](#).

The [Radioactive Substances Regulation Environmental Principles](#) (REPs) (RGN RSR1) form a consistent and standardised framework for the assessments and judgements that we make when regulating radioactive substances, including those about permitting and compliance where we regulate directly and those where we are consultees or advisers or otherwise have influence. The principles are supported by more developed guidance on specific issues and themes, such as the guidance on [near surface](#) and [geological](#) disposal of solid radioactive waste, and guidance on the “Principles of Optimisation”. We have also provided regulatory guidance on the [“regulation of radioactive substances activities on nuclear licensed sites”](#) (RGN RSR2).

Our suite of nuclear guidance fits together like this:



You should use the guidance in the following ways

You can use this guidance to understand your permit, including the conditions and limits we consider necessary to regulate your activity, and to identify in broad terms what you should do to comply with the permit. This guidance refers to other documents in which you can find more information. It does not provide detailed technical guidance nor does it set out specific technical standards or measures. The RSR nuclear permit conditions describe what we want you to achieve but do not usually tell you how to do this. They are intended to give you a degree of flexibility in deciding exactly how you operate.

This document sets out the permit conditions and then provides guidance on how to comply. References to figures and tables in the permit conditions refer to the figures and tables you will find in your permit. We have not provided guidance on certain conditions where we consider that none is needed.

In line with this flexible approach, some permit conditions allow for further detailed requirements, approvals or agreements. We will only use these to set out matters of detail, and these will be clearly linked to the original permit condition. We call these second-tier documents “Environment Agency Requirements” (EARs) and for a site as a whole the “CEAR” (Compilation of Environment Agency Requirements). We shall place these on the public register, subject to considerations of confidentiality and national security. This continues the previous practice under RSA93.

In broad terms the permit is based on the following approach:

- you must use Best Available Techniques (BAT) to minimise radioactive waste generation, radioactive waste disposals to the environment and the resulting radiological impact. This is to meet the requirement to reduce the radiological dose to the public to as low as reasonably achievable (ALARA) (conditions 2.3.1, 2.3.2 and 2.3.3);
- you must maintain a written demonstration of how you meet that general duty (an “environment case”) (condition 4.1.3);
- you may only dispose of radioactive waste in the manner and amounts specified in your permit (conditions 3.1.1 and 3.1.2);
- you must have suitable management arrangements, including sufficient competent persons and resources, to comply with your permit (condition 1.1.1);
- you must undertake such monitoring as necessary to demonstrate compliance with your permit (we do not set specific monitoring, or reporting requirements in the permit) (condition 3.5.1);
- you must make and keep records demonstrating compliance and provide information to us as requested (several conditions).

The permit is structured as follows

- Part 1 Management
- Part 2 Operations
- Part 3 Disposals of radioactive waste and monitoring
- Part 4 Information
- Schedules (which set out limits and other detailed issues).

1 Management

Conditions 1.1.1, 1.1.2, 1.1.3, and 1.1.4

1.1.1 *The operator shall manage and operate the activities:*

- (a) *in accordance with a written management system that is sufficient to ensure compliance with the conditions of this permit; and*
- (b) *using sufficient competent persons and resources.*

1.1.2 *The operator shall maintain records demonstrating compliance with condition 1.1.1.*

1.1.3 *Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.*

1.1.4 *The operator shall manage and operate the activities in consultation with such suitable RPAs, or other such qualified experts approved by the Environment Agency in writing, as are necessary for the purpose of advising the operator as to compliance with this permit.*

How to comply

Condition 1.1.1

This condition means that you must put in place and implement management arrangements to ensure that you comply with your permit conditions.

We have provided guidance on management arrangements in section 5.1 of the [RSR Environmental Principles](#) and, in more detail, in our guidance on “[Management Arrangements at Nuclear Sites](#)”. We will use these to assess your management arrangements. We have also published joint guidance with HSE on how you can meet our and the HSE’s expectations for management arrangements through a single [integrated management prospectus](#). We hope this integrated approach will offer you a more efficient and effective way to demonstrate your compliance to the HSE and ourselves, as well as supporting an even more co-coordinated approach to our regulation of nuclear sites.

Both regulatory organisations expect the following elements to form the common basis of an operator’s management arrangements:

- 1) Activities
- 2) Organisational Structure
- 3) Governance
- 4) Capability
- 5) Learning Organisation

You may also operate other EPR activities on your site. Where you do, you should follow and apply the guidance in this section and our guidance on Management Arrangements at Nuclear Sites to all activities you operate. You will also need to apply any specific additional requirements in relation to any non-RSR activities that are described in the relevant technical guidance. This is to ensure that you adopt a management system which fully addresses the range of activities you operate, in a way which is consistent with regulatory requirements.

Condition 1.1.2

You must make and keep reliable records showing how you have implemented your management arrangements. These are an essential part of your management system.

Section 4 of the permit tells you how to keep the records.

Condition 1.1.3 and 2.3.7

Conditions 1.1.3 and 2.3.7, require you to make the permit available to relevant staff, and to display it on your premises.

Condition 1.1.4

Condition 1.1.4 requires that you consult suitable RPA(s) or qualified expert(s) in the management of the disposal of radioactive waste. This is to comply with the requirements of the Euratom Basic Safety Standards Directive (BSSD – Directive 96/29 Euratom). The BSSD states these are:

“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”.

The role of a Qualified Expert is to advise an operator. You should satisfy yourself that the Qualified Experts you have decided to consult are suitable for your specific facility and the radioactive waste being generated. You will need to use suitably qualified and experienced persons to implement the advice provided by a Qualified Expert. We shall publish, and from time to time update, specific guidance on the Qualified Expert requirement.

2 Operations

Condition 2.1 : Permitted activities

2.1.1 *The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the “activities”).*

How to comply

The EPR include many different activities but you are only permitted to carry out those activities listed in your permit. However, you may carry out other activities on the site provided that:

- they do not need a permit under any legislation; or
- they are exempt from the requirement to have a permit, eg activities covered by the RSR exemptions; or
- you have a separate permit issued by the Environment Agency or by another regulator such as a local authority.

Condition 2.1 and table S1.1 also specify the justified practice(s) or work you are permitted to undertake. You are only permitted to undertake the permitted EPR activities (disposal of radioactive waste etc) for the justified practice(s) or work specified in table S1.1. In general, you will need to apply for a variation if you wish to change the nature of the activities, practice(s) or work undertaken.

Conditions 2.1.2 and 2.1.3 These conditions will only be included in permits for tenants who use open sources.

2.1.2 *Only radioactive material in the form of open sources comprising the radionuclides specified in table S2.1 in schedule 2, together with any associated decay products present in amounts not exceeding those which could be present through radioactive decay of the specified radionuclides, shall be kept or used on the premises.*

2.1.3 *The maximum activity of each radionuclide kept or used on the premises shall not exceed the relevant maximum number specified in table S2.1 in schedule 2*

How to comply

If you use open sources you must maintain your holdings on the premises to within the limits specified in table S2.1 in schedule 2

Condition 2.2

2.2.1 *The activities shall not extend beyond the site, being the land shown edged in green on the site plan at schedule 7 to this permit.*

How to comply

You are only allowed to undertake the activities permitted in condition 2.1 within the area of land shown on the site plan in Schedule 7 of the permit. [RGN RSR2 “The regulation of radioactive substance activities on nuclear licensed sites”](#) provides guidance on how you define the area of the site for the purposes of this condition. If you wish to expand the area of the premises where you carry out your RSR activities you need to apply for a variation. If you wish to reduce the area you will need to apply for surrender either in full (the whole site) or in part. Again RGN RSR2 gives some advice on that aspect.

2.3 Operating techniques

Conditions 2.3.1, 2.3.2 and 2.3.3

- 2.3.1 *The operator shall use the best available techniques to minimise the activity of radioactive waste produced on the premises that will require to be disposed of on or from the premises.*
- 2.3.2 *The operator shall use the best available techniques in respect of the disposal of radioactive waste pursuant to this permit to:*
- (a) *minimise the activity of gaseous and aqueous radioactive waste disposed of by discharge to the environment;*
 - (b) *minimise the volume of radioactive waste disposed of by transfer to other premises;*
 - (c) *dispose of radioactive waste at times, in a form, and in a manner so as to minimise the radiological effects on the environment and members of the public.*

Condition 2.3.3 will be used to set site-specific BAT conditions which may typically include:

- 2.3.3 *The operator shall use the best available techniques to*
- (a) *exclude all entrained solids, gases and non-aqueous liquids from radioactive aqueous waste prior to discharge to the environment;*
 - (b) *remove suspended solids from radioactive waste oil prior to incineration;*

How to comply

Conditions 2.3.1 and 2.3.2, taken together, address the requirements of the BSSD and Part 3 of Schedule 23 of the Environmental Permitting Regulations, taking into consideration Government Guidance on this matter (namely the Government's RSR Guidance for EPR and the Statutory Guidance concerning the regulation of radioactive discharges into the environment).

Condition 2.3.1 requires you to use BAT to minimise the activity of radioactive waste **produced** that will ultimately require disposal under the authorisation, ie you should minimise the production of radioactive waste and, where possible, prevent its arising.

Having minimised the activity of radioactive waste produced, condition 2.3.2 requires you to use BAT to minimise the activity of that part of the radioactive waste that is disposed of, in gaseous or aqueous form, by discharge to the environment, and to minimise the volume of radioactive waste disposed of by transfer to other premises, for example by using practices such as compaction or incineration. It does not require BAT to be used to minimise the activity of radioactive waste disposed of by transfer.

You must also dispose of radioactive waste in a way which minimises the radiological effects (for example by using discharge arrangements which optimise dispersal of the radioactive waste).

Conditions 2.3.1 and 2.3.2 apply to all aspects of the nuclear site processes, not just radioactive waste management processes, which have a bearing on the production and disposal of radioactive waste. For example we consider condition 2.3.1 and 2.3.2 to apply to matters such as:

- the chemical conditioning of the primary coolant water within a nuclear reactor. This water is used to transfer heat from the nuclear fuel to the steam generators in the power station, and its precise chemical composition (which can be controlled by adding chemicals to it)

can significantly affect corrosion within the reactor, and hence the radioactive waste arisings;

- the choice of materials used for the various component parts of a nuclear reactor. Although it is essential that the materials perform satisfactorily on safety and operational grounds, nevertheless there may be alternative materials for specific parts of a reactor which are both acceptable on those grounds and which can have a significant effect on the activity in the radioactive wastes that the reactor produces;
- the operation and maintenance of a pond water conditioning plant at a nuclear power station. Good pond water chemistry and cooling are important with regard to BAT for the minimisation of waste: if the chemistry is wrong or the temperature increases, then there is increased potential for fuel to corrode, so releasing activity into the pond water that will ultimately have to be removed through chemical treatment plant and/or filters, or by discharging it into the environment.

BAT is defined in Annex A of this document. You should note that “techniques” is defined to include

“both the technology used and the way in which the installation is designed, built, maintained, operated and dismantled”

Therefore conditions 2.3.1, 2.3.2 and 2.3.3 include consideration of matters such as design, construction, operation, maintenance, decommissioning, and training of staff. You should ensure that your responsibilities under conditions 2.3.1, 2.3.2 and 2.3.3 are delivered in a way that is consistent with the broad requirement of condition 1.1.1.

In the document [“RSR Principles of Optimisation”](#), we have provided separate guidance on how you should assess and identify the techniques you use so as to meet the “best available techniques” criterion.

If a legally binding obligation requires stricter conditions and limits than those which would be required by the application of BAT, then we shall apply those stricter conditions and limits in your permit.

We may also set conditions relating to specific aspects of the use of BAT in condition 2.3.3.

Condition 4.1.3 requires you to maintain a written demonstration of the use of BAT

We shall apply these conditions in accordance with our legal powers on nuclear sites, and as set out in Memoranda of Understanding and other agreed ways of working with the HSE.

In relation to on-site management of higher activity wastes, we have published joint guidance with HSE and the Scottish Environment Protection Agency through, [“Fundamentals of the management of radioactive waste: An introduction to the management of higher-level radioactive waste on nuclear licensed sites”](#) and associated documents. The relevant regulatory process involves HSE’s statutory powers under the Nuclear Installations Act 1965, , and in general we shall not duplicate that regulatory process through our application of the BAT conditions in an EPR permit.

Conditions 2.3.4, 2.3.5 and 2.3.6

2.3.4 *The operator shall maintain in good repair the systems and equipment provided:*

- (a) to meet the requirements of conditions 2.3.1, 2.3.2 and 2.3.3;*
- (b) to carry out any monitoring and measurements necessary to determine compliance with the conditions of this permit;*

- (c) *to measure and assess the exposure of members of the public and radioactive contamination of the environment.*

2.3.5 *The operator shall check, at an appropriate frequency, the effectiveness of systems, equipment and procedures provided to meet the requirements of conditions 2.3.1, 2.3.2 and 2.3.3.*

2.3.6 *The operator shall have and comply with appropriate criteria for the acceptance into service of systems, equipment and procedures for:*

- (a) *carrying out any monitoring and measurements necessary to determine compliance with the conditions of this permit;*
- (b) *measuring and assessing exposure of members of the public and radioactive contamination of the environment.*

How to comply

Condition 2.3.4 requires you to maintain all systems and equipment which bear on: the production of radioactive waste requiring disposal; the minimisation of radioactive waste discharged to the environment; and the minimisation of the radiological impact. Together, these contribute to the use of BAT in conditions 2.3.1, 2.3.2 and 2.3.3. The use of the word “provided” rather than “used” is intended to ensure that back-up systems are maintained as well as those in use. This condition recognises that poor maintenance of plant, instrumentation or infrastructure can unnecessarily produce radioactive waste

Condition 2.3.5 addresses the requirements of paragraph 1(b) of Article 47 of the BSSD, in checking the effectiveness of technical devices for protecting the environment and the population. Condition 2.3.6 addresses the requirements of paragraph 1(c) of Article 47 of BSSD, in relation to “measuring instruments” associated with BAT-related or disposal equipment.

Condition 2.3.7 - and equivalent deemed condition in existing permits - and condition 1.1.3

2.3.7 *The operator shall post copies of this permit on the premises, in such characters and in such positions to be conveniently read by persons who have duties on the premises which are or could be affected by the matters set out in this permit.*

How to comply

This condition replicates the previous requirements of section 19 of RSA93. For permits that were originally issued under RSA93 and continue in force under the transitional provisions of the EPR, this is a “deemed” provision in the Regulations, that is the Regulations place this condition on you directly. For permits issued after 6/4/2010 this will appear as an explicit permit condition.

You must post (ie display) your permit such that persons having duties on your premises (ie staff and contractors) and whose duties may be affected by the permit conditions, can conveniently read it. Those persons should also have ready access to any other information they need to ensure that they act in ways that assure compliance with the permit. This could, include be access to this document, or detailed instructions that you may provide which are targeted on their responsibilities.

This condition does not apply to the CEAR : you should not post this but it does need to be available to relevant staff.

Conditions 2.3.8 (This condition will only be included in permits for tenants who use open sources)

2.3.8 *The operator shall maintain records of open radioactive sources showing:*

- (a) the radionuclide present, the date on which it was received and the activity on that date;*
- (b) so far as is reasonably practicable its location on the premises;*
- (c) if it has been removed from the premises, the date of removal, the activity on that date and the name and address of the person to whom it was transferred; and*
- (d) the activity present on the premises at the end of each calendar month.*

How to Comply

If you use open sources you must maintain your holdings on site to within the limits specified in table S2.1 (conditions 2.1.2 and 2.1.3). You must keep records as set out in condition 2.3.8 of the receipt and disposal of sources, the activity of the sources when received and disposed of and their location on the premises. You must also keep the details specified in 2.3.8 (c) about when and how you disposed of the sources. You must also maintain details of the total activity of such sources at the end of each month.

2.6 Receipt of radioactive waste

2.6.1 *The operator shall:*

- a) for each type of radioactive waste that it is prepared to receive, produce a written specification of the information required to:
 - (i.) enable the disposal of that type of radioactive waste in compliance with this permit; or*
 - (ii.) where disposal of that type of radioactive waste is not currently permitted, sufficiently characterise that waste to, as far as reasonably practicable, enable its future disposal;**
- (b) provide that written specification to any person from whom it is prepared to receive radioactive waste of that type;*
- (c) only accept a consignment of radioactive waste that is accompanied by a legible note providing the specified information;*
- (d) keep a copy of any such note received.*

2.6.2 *The provisions of paragraph 2.6.1 do not apply to any radioactive waste collected as a result of the operator's participation in the National Arrangements for Incidents involving Radioactivity or in the Radsafe scheme.*

How to Comply

These conditions complement 3.5.1 and 3.5.2 to:

- facilitate properly-controlled transfer of radioactive waste between waste consignors and consignees,
- ensure adequate exchange of information;
- ensure the waste is disposed of in accordance with permit conditions, and to
- ensure the maintenance of records of transfers of radioactive waste.

You should prepare a written specification for each type of radioactive waste you are prepared to receive, covering matters such as activity content, chemical composition and packaging, as

necessary to ensure you only receive radioactive waste which you can in turn dispose of in accordance with your permit conditions. Where there is currently no permitted disposal route, you should ensure that the wastes received are sufficiently characterised to enable their future disposal as far as is reasonably practicable.

You should make such written specifications available to prospective consignees and must only accept radioactive waste if it is accompanied by a consignment note setting out the necessary information to confirm that the waste meets the relevant specifications. You must keep the consignment notes you receive.

Paragraph 2.6.1 does not apply to wastes received as a result of participation in NAIR or the Radsafe schemes.

This condition does not apply to very small (laboratory-scale) returns of radioactive waste which originated on your site - for example, samples sent to another site for analysis or testing and which are subsequently returned to you.

Conditions 2.6.3 and 2.6.4 (These conditions will only be placed in permits where the operator receives radioactive waste for the purpose of final disposal on or from the premises)

2.6.3 Before the operator first receives radioactive waste from a consignor for the purpose of final disposal of that waste from or on the premises, the operator shall, at the earliest opportunity, inform the local authority, in whose area of responsibility the premises is situated, of the origin and nature of the radioactive waste.

2.6.4 The provisions of 2.6.3 do not apply

- (a) where the waste consignor is exempt from the requirement to hold an environmental permit for the disposal of radioactive waste;*
- (b) to the extent that it would require the disclosure of information relating to sealed radioactive sources*

These conditions will only be placed in your permit where you receive radioactive waste for the purpose of its final disposal on or from your premises, eg if you operate an incinerator or undertake on-site burial of radioactive waste.

If so, you will need to inform the local authority, in whose area your premises is located, before you first receive radioactive waste from a consignor, stating

- your name and address
- the name and address of the consignor;
- description of the type of radioactive waste to be received using the recognised waste classifications (eg LLW);
- the date on which that radioactive waste is expected to be received for the first time.

You must inform the local authority at the earliest opportunity: we would expect that to be as soon as you have made arrangements for the first transfer of waste. In any event you must inform the local authority before you receive the radioactive waste on site. You need only inform the local authority of the first consignment of waste: you do not need to inform them of any subsequent transfers.

You do not need to inform the local authority if the transfer is exempt from the requirement for an environmental permit for the disposal of radioactive waste.

You must not provide the local authority with any information about a consignor sending you sealed radioactive sources for final disposal, including the fact that such a transfer will take place. That is you must not inform the local authority of the proposed receipt nor provide any information about it

3 Disposals of radioactive waste and monitoring

Disposals of radioactive waste

Conditions 3.1.1 and 3.1.2

3.1.1 *Subject to 3.1.3, there shall be no disposals of radioactive waste except of the types of radioactive waste and by the disposal routes specified in schedule 3 or otherwise agreed in writing by the Environment Agency.*

3.1.2 *The limits on disposals given in schedule 3 shall not be exceeded.*

How to comply

These conditions, together with the tables in schedule 3, specify

- the types of radioactive waste you may dispose of;
- how you may dispose of it, eg by discharge to air, or transfer to another person; and
- limits on what you may dispose of.

You must not dispose of any types of radioactive waste other than: those specified in schedule 3, and by the disposal routes specified and limited in schedule 3; or those that are otherwise agreed in writing with us.

The permit will specify all outlets on your site which have, either individually or collectively, significant discharges. We may choose to approve minor disposal outlets in the CEAR, rather than specify these in the permit, but these will not constitute in total more than 5% of the site limits on discharges. Some discharges occur via imprecisely-defined routes and entries such as "reactor leakage routes" may then be necessary.

We shall include relevant incinerator stacks when permitting the discharge of waste gases from incineration, but we may set limits on the inputs to an incinerator rather than the discharges from its stack.

You must not make any disposals of radioactive waste that could result in a direct or indirect discharge to groundwater unless specifically permitted to do so, in order to meet the requirements of Schedule 22 to the EPR in relation to Groundwater Activities.

The requirement to use BAT under conditions 2.3.1, 2.3.2, and where relevant under 2.3.3, applies to all disposals and at all times. That is, it is not sufficient merely to comply with your disposal limits. If lower disposals can be achieved through the use of BAT then you must use BAT to achieve that result.

Condition 3.1.3

3.1.3 *The operator may dispose of radioactive waste, not being radioactive waste otherwise authorised to be disposed of, which is collected as a result of the operator's participation in the National Arrangements for Incidents involving Radioactivity or in the Radsafe scheme provided that the operator:*

- transfers the radioactive waste to a person whom the Environment Agency has agreed in writing may receive that radioactive waste;*
- as soon as practicable provides available details in writing to the Environment Agency of the nature of the radioactive waste, the radionuclides present, their activities and the manner and date of disposal.*

This paragraph makes provision for the disposal of radioactive waste as part of your involvement in NAIR and the Radsafe scheme. You may be able to dispose of this waste using the disposal routes specified in your permit. In this case the disposal will count towards any relevant limits in your permit. If you are not able to dispose of the waste using your permitted routes, you should discuss with us how you propose to dispose of it, so that we may agree appropriate arrangements with you..

Transfers of radioactive waste

Where you are permitted to dispose of radioactive waste by transfer to another person, your permit will contain the following conditions.

Conditions 3.1.4, 3.1.5, and 3.16

3.1.4 *The operator shall ensure that the transfer of radioactive waste is in accordance with the directions of the person to whom the radioactive waste is transferred that are necessary to enable that person to comply with all relevant regulatory requirements.*

3.1.5 *The operator shall:*

- (a) *ensure that the person to whom radioactive waste is transferred receives at the time of transfer of each consignment a clear and legible note signed on the operator's behalf*
 - (i.) *stating the total activity in the consignment of each relevant radionuclide or group of radionuclides listed in the relevant table in schedule 3; or*
 - (ii.) *stating, when no relevant radionuclide or group of radionuclides is specified in schedule 3, the total activity in the consignment of each radionuclide or group of radionuclides as listed in the written specification of the person to whom the radioactive waste is transferred.*
- (b) *obtain a note signed on behalf of the person to whom radioactive waste is transferred, at the time of transfer, stating that the transfer has taken place;*
- (c) *keep a copy of any note issued under 3.1.5(a) and any note received under 3.1.5(b).*

3.1.6 *If required by the Environment Agency, the operator shall ensure that any consignment or part of any consignment of radioactive waste found, following transfer, not to be in accordance with the conditions of this permit:*

- (a) *is packaged in accordance with the appropriate transport regulations;*
- (b) *is returned as soon as is reasonably practicable to the operator's site.*

How to comply

Conditions 3.1.4, 3.1.5 and 3.1.6 cover how you transfer radioactive waste to other people. These conditions complement 2.6.1 and 2.6.2 and have matching aims to those described above for condition 2.6.1.

You can only transfer waste as permitted under conditions 3.1.1, 3.1.2 and the relevant tables in schedule 3. Schedule 3 will specify the types of waste you may dispose of by transfer, where it may be disposed of, and it may also specify limits on transfer, such as on radionuclides or volume. The permit may allow transfer to any person permitted to receive and dispose of such waste or may identify specific sites, where necessary to meet the requirements of Government policy, for example having regard to the proximity principle and the waste hierarchy.

When you transfer radioactive waste to other people you must comply with any directions from them that are necessary to enable them to comply with their regulatory requirements (condition 3.1.4).

You must provide the person receiving the waste with the information set out in condition 3.1.5, including any information they specify (see condition 2.6.1 relating to the written specification for waste receipt provided by the waste consignee). You must send a written, signed, note with the consignment containing that information and you should obtain a written, signed, confirmation of the transfer at the time the transfer takes place. You must keep a record of these consignment notes.

Under condition 3.1.6 we may require you to take back waste if the transfer has been found not to be in compliance with the conditions of your permit. You would then be responsible for any (re)packaging of the waste to enable it to be transferred back to you.

Condition 3.1.7

3.1.7 The operator shall, not later than 14 days after the end of each month or within such longer period as the Environment Agency may approve in writing, record all disposals of radioactive waste made during that month

How to comply

You must record all disposals of radioactive waste within 14 days of the end of each month unless we approve a longer period. Any such approvals will be set out in an EAR. Your records should show clearly and legibly the following, unless we agree otherwise:

- the type of waste and the disposal route;
- the name of each radionuclide or group of radionuclides, specified in the schedule, which is present in the waste;
- the activity of each such radionuclide or group of radionuclides per cubic metre of the waste;
- for solid low-level radioactive waste (LLW), the activity of each such radionuclide or group of radionuclides per tonne of the waste;
- the total activity of each such radionuclide or group of radionuclides;
- the total volume in cubic metres;
- for Low-Level Waste Repository (LLWR) waste, the total mass in tonnes;
- the date and time on which or period during which the disposal took place.

3.2 Monitoring

Conditions 3.2.1 and 3.2.2

3.2.1 The operator shall:

- (a) take samples and conduct measurements, tests, surveys, analyses and calculations to determine compliance with the conditions of this permit;*
- (b) use the best available techniques when taking such samples and conducting such measurements, tests, surveys, analyses and calculations, unless particular techniques are specified in schedule 3 of this permit;*
- (c) define and document the techniques being employed to determine the activity of radioactive waste disposals and shall inform the Environment Agency in writing in advance of any modifications to those techniques that have a potential to change the results obtained.*

3.2.2 *The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.*

How to comply

You must carry out the monitoring needed to determine compliance with your permit. Condition 3.1.1 applies to all relevant conditions, not just to numerical limits. Numerical limits and levels included in the permit are absolute and not related to a particular measurement method except where we specify such a method in the permit. You must use BAT in sampling, analysis and assessment of radioactive waste disposals to demonstrate compliance with the absolute values. Where we specify a particular method of measurement in the permit, you must use that method and in such cases the limit would be set in a way linked to the method. In these cases, you must still carry out associated activities using BAT.

We provide guidance on how you assess discharges for reporting in our document “Standardised reporting of radioactive discharges”. This document also provides guidance on reporting for the RSR Pollution Inventory. Condition 3.1.2 requires you to define and document the techniques used, as described in the guidance on standardised reporting.

In accordance with condition 3.2.2 you must keep records of all the sampling and monitoring you undertake, and of any assessments, reports etc you make using the data.

Condition 3.2.3

3.2.3 *Monitoring equipment, techniques, personnel and organisations employed for the monitoring of disposals and the environment required by condition 3.2.1 or 3.2.5 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.*

How to comply

The Environment Agency monitoring certification scheme (MCERTS) provides for the product certification of monitoring systems (for example, instruments, analysers and equipment), the competency certification of personnel, and the accreditation of laboratories and organisations involved in sampling. See www.environment-agency.gov.uk for further information on MCERTS certified equipment and www.ukas.org to search for MCERTS accredited stack testing organisations. MCERTS certified equipment, staff and laboratories should be used where available, unless we agree alternative arrangements

Condition 3.2.5

3.2.5 *If required by the Environment Agency, the operator shall*

- (a) *take such samples and conduct such measurements, tests, surveys, analyses and calculations, including environmental measurements and assessments, at such times and using such methods and equipment as the Environment Agency specifies;*
- (b) *keep samples, provide samples, or dispatch samples for tests at a laboratory, as the Environment Agency specifies, and ensure that the samples or residues thereof are collected from the laboratory within three months of receiving written notification that testing and repackaging in accordance with the appropriate transport regulations are complete.*

How to comply

We shall use this condition to specify other testing, monitoring and assessment requirements, including environmental monitoring. We will specify these, as required, in an EAR.

Condition 3.2.6

3.2.6 *The operator shall carry out:*

- (a) *regular calibration, at an appropriate frequency, of systems and equipment provided for:*
 - (i.) *carrying out any monitoring and measurements necessary to determine compliance with the conditions of this permit;*
 - (ii.) *measuring and assessing exposure of members of the public and radioactive contamination of the environment.*
- (b) *regular checking, at an appropriate frequency, that such systems and equipment are serviceable and correctly used.*

How to comply

Condition 3.2.6 addresses the requirements of paragraph 1(d) of Article 47 of BSSD, in relation to the regular calibration of measuring instruments and regular checking that they serviceable and correctly used. We expect you to calibrate and check such equipment in accordance with the manufacturers' recommendations and relevant good practice.

4 Information

4.1 Records

4.1.1 *All records required to be made by this permit shall:*

- (a) *be legible;*
- (b) *be made as soon as reasonably practicable;*
- (c) *if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and*
- (d) *be retained until notified in writing by the Environment Agency that records no longer need to be retained.*

4.1.2 *The operator shall keep on site all records, plans and the management system required by this permit, unless otherwise agreed in writing by the Environment Agency.*

How to comply

We require you to retain records indefinitely unless we specify otherwise. Records may be held electronically. Times should be recorded using the 24-hour clock.

Condition 4.1.3

4.1.3 *The operator shall maintain an environment case, consisting of documents, which demonstrates the use of best available techniques to protect people and the environment throughout the life-cycle of the activities.*

How to comply

You need to maintain a written demonstration that you are using BAT, as required by the conditions in section 2.3. For convenience we call the totality of documented information which substantiates that demonstration an “environment case”. We do not require or expect you to prepare and maintain separate documentation for this purpose, indeed we would encourage you to make use of documents prepared for other purposes and to take an integrated approach to safety and environmental matters. It is for you to decide the form in which you keep this documentation. The environment case is not a one-off series of documents prepared in support of an application for a permit or variation but a holistic, living framework which supports all the environment-related decisions you make. We have provided more guidance on this subject in chapter 4 of Regulatory Guidance Series, No RSR 2 : [The regulation of radioactive substances activities on nuclear licensed sites](#).

Condition 4.1.4

4.1.4 *The operator shall*

- a) retain records made in accordance with any previous relevant permit issued to the operator and related to the premises covered by this permit;*

b) retain records transferred to the operator, which were made in accordance with any previous relevant permit related to the premises covered by this permit.

How to comply

This condition refers to records

- made under a previous RSA93 authorisation held by you, eg before RSA93 was amended to allow transfer of certificates of authorisation; or
- or made by a previous operator and transferred to you when you were first granted an RSA93 authorisation.

This condition complements condition 4.1.1 by requiring you to retain records both from your current operation and from earlier operation of the site, whether operated by you or another operator.

4.2 Reporting

Condition 4.2.1 and 4.2.2

4.2.1 The operator shall send all reports and notifications required by this permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.

4.2.2 The operator shall supply such information in relation to the samples, tests, surveys, analysis and calculations, environmental monitoring and assessments undertaken under conditions 3.5.1 and 3.5.5 in relation to disposals of radioactive waste, in such format and within such timescales as the Environment Agency may specify.

How to comply

We use condition 4.2.2 to specify the information you need to supply to us. We shall normally use this for the provision of monthly returns, and information for the Pollution Inventory. We may also specify one-off requirements - for example to obtain specific plant details. We shall specify our requirements in the CEAR.

4.3 Notifications

Conditions 4.3.1 and 4.3.2

4.3.1 The Environment Agency shall be notified without delay following the detection of:

- (a) any malfunction, breakdown or failure of equipment or techniques and any accident, which has caused, is causing or may cause significant pollution or may generate significant amounts of radioactive waste;*
- (b) the breach of a limit specified in this permit, or disposal of waste other than by a relevant permitted route;*
- (c) any significant adverse environmental effects.*

4.3.2 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 5 within the time period specified in that schedule.

How to comply

“without delay” means that you must notify us as a priority, as soon as is practicable of any the matters listed in condition 4.3.1.

In (a) “significant pollution” means any disposal of radioactive material or radioactive waste into the environment which may cause significant adverse environmental effects including harm to any sensitive receptors and significant impacts on properties. In particular , you should notify us of leaks, whether of radioactive material or waste, if these have potential to, are causing or have caused significant pollution of the ground, ground water, controlled waters or other environmental media and receptors. You should also notify us of leaks, which while contained, have the potential or have generated significant amounts of radioactive waste requiring disposal.

If, during monitoring, you discover any breaches of the limits specified in your permit, we expect you to notify us as soon as the results have passed any laboratory quality assurance checks.

You should notify us in the event that you dispose of waste other than in accordance with your permit. That could include leaks (such as may also fall into (a)) but could also include, for example, if you transfer waste off-site other than as allowed by your permit.

During normal working hours, you may be able to contact the site officer or the local Environment Agency office by telephone, fax or email. You can also use the Environment Agency’s incident hotline, 0800 807060. Calls are free and the hotline operates 24 hours a day, seven days a week

Condition 4.3.5

4.3.5 *Where the operator proposes to make a change in the management system or resources, which might have, or might reasonably be seen to have a significant impact on how compliance with the conditions of this permit is achieved:*

- (a) *the operator shall notify the Environment Agency at least 28 days before making that change, or where that is not possible, without delay; and*
- (b) *shall include in the notification a description of the proposed changes.*

How to comply

You need to inform us and provide details if you are proposing to make changes to your management arrangements and the resources available, if these might have, or might reasonably be seen to have, a significant impact on your ability to comply with your permit. Your change-management arrangements should contain provisions for considering the potential impact of changes on your ability to comply with the permit, and should identify when you need to notify us under condition 4.3.5. You should normally inform us and provide a description of the proposed changes at last 28 days before making any changes.

Changes to your facilities, their functioning or their size on your site will not of themselves require notification under 4.3.5. However you should consider whether such changes will:

- require changes to your permitted disposals, which in turn will require a variation to your permit;
- have consequential impacts on your management systems, which may require notification;
- result in review and, where necessary, revision of your environment case demonstrating BAT (see condition 4.1.3)..

Condition 4.3.6

4.3.6 *If, in any week, the activity in any radioactive waste disposed of from any outlet or group of outlets specified in schedule 3 of any radionuclide or group of radionuclides exceeds, or is likely to exceed, the relevant Weekly Advisory Level (where specified), the operator shall:*

- (a) *without delay, inform the Environment Agency and the Food Standards Agency;*
- (b) *as soon as reasonably practicable, advise the Environment Agency and the Food Standards Agency of the circumstances at the site leading to the release and the possible impact of any deposition of radioactivity on pasture or crops in the vicinity of the site, including any measurements made.*

How to comply

We include these short-term advisory levels so that we and the Food Standards Agency will be informed of any short-term releases which have the potential, for example under particular combinations of weather conditions and at particular times of year, to give enhanced activity levels in foodstuffs such that radiation dose limits or European Council Food Intervention Levels (CFILs) may be exceeded. The notification will enable us and/or the Food Standards Agency to take early action if necessary. You need to have in place the management arrangements and monitoring to be able to inform us when disposals exceed or are likely to exceed any weekly advisory levels.

Condition 4.3.7

4.3.7 *If, in any quarter, the activity in any waste discharged from any outlet or group of outlets specified in schedule 3 of any radionuclide or group of radionuclides exceeds the relevant Quarterly Notification Level (where specified), the operator shall provide the Environment Agency with a written submission which includes:*

- (a) *details of the occurrence;*
- (b) *a description of the means used to minimise the activity of radioactive waste discharged;*
- (c) *a review of those means having regard to conditions 2.3.1, 2.3.2 and 2.3.3;*

not later than 14 days from making the record which demonstrates such excess.

How to comply

We may set quarterly notification levels to ensure we are alerted to operational anomalies that cause discharges to increase. We do this on a rolling quarterly period (that is the last full 3 months) You need to have in place the management arrangements and monitoring to be able to inform us when disposals exceed or are likely to exceed any quarterly notification levels. If you notify us of an exceedance, you will also need to review your techniques against the requirements of conditions 2.3.1, 2.3.2 and 2.3.3 as appropriate.

Condition 4.3.8 (only included in permits for tenants using open sources)

4.3.8 *If the operator believes or has reasonable grounds for believing that an open radioactive source has been lost or stolen he shall:*

- (a) *without delay inform the Police and the Environment Agency;*
- (b) *make all reasonable efforts to recover the source;*
- (c) *as soon as is practicable report the circumstances in writing to the Environment Agency.*

How to comply

See conditions 4.3.1 and 4.3.2 on how to make notifications to us.

Annex A: Definition of BAT

BAT is defined as

The use of the best available techniques shall emphasise the use of non-waste technology, if available.

The term "best available techniques" means the latest stage of development (state of the art) of processes, of facilities or of methods of operation which indicate the practical suitability of a particular measure for limiting discharges, emissions and waste. In determining whether a set of processes, facilities and methods of operation constitute the best available techniques in general or individual cases, special consideration shall be given to:

- a) comparable processes, facilities or methods of operation which have recently been successfully tried out;*
- b) technological advances and changes in scientific knowledge and understanding;*
- c) the economic feasibility of such techniques;*
- d) time limits for installation in both new and existing plants;*
- e) the nature and volume of the discharges and emissions concerned.*

It therefore follows that what is "best available techniques" for a particular process will change with time in the light of technological advances, economic and social factors, as well as changes in scientific knowledge and understanding.

If the reduction of discharges and emissions resulting from the use of best available techniques does not lead to environmentally acceptable results, additional measures have to be applied.

"Techniques" include both the technology used and the way in which the installation is designed, built, maintained, operated and dismantled.