

Pollution Inventory reporting form for radioactive waste

Annual disposals

Environmental Permitting (England and Wales) Regulations 2010



Electronic reporting

We recommend that you fill in your Pollution Inventory return using our web-based reporting system. This system can check the information you provide, automatically fill in standard fields and allow you to look at information you have given in previous years. To use this system, follow the links to electronic reporting from the Pollution Inventory homepage on our website at

www.gov.uk/government/organisations/environment-agency

Who needs to fill in this form?

You need to fill in this form if you cannot use the electronic system and you hold a permit (or approval for MOD) for disposal of radioactive waste in the form of open sources listed below:

- disposals to air, controlled waters, or sewers.

You do not need to report exempt or out of scope waste or transfers for off-site disposal. See note 1 in part 6.

To fill in this form you'll need records of relevant disposals/discharges/releases of radioactive waste.

How to fill in the form

Everyone must fill in part 1. You will then need to fill in any other parts relevant to you. Finally, fill in the explanatory notes to give us reasons for any significant changes from the previous year's figures, and the declaration in part 5.

How to contact us

If you need help filling in the form, please contact your local Officer, or call our general enquiries number shown below.

General enquiries: 03708 506 506 (Monday to Friday, 8am to 6pm)

Minicom (for the hard of hearing): 03702 422 549 (Monday to Friday, 8am to 6pm)

Email: pollution.inventory@environment-agency.gov.uk

Website:

www.gov.uk/government/organisations/environment-agency

If you are happy with our service, please tell us. It helps us to identify good practice and encourages our staff. If you're not happy with our service, please tell us how we can improve it.

Please tell us if you need information in a different language or format (for example, in large print) so we can keep in touch with you more easily.

Confidentiality

If you think that some of the information on this form is confidential:

- tick the box in the section below; and
- list any supporting documents on the form.

We will make a decision on your claim for confidentiality within 20 days from the date of your application or within a later period if we agree. If you do not enclose a written justification for each item included in the confidentiality claim, we are likely to reject it straight away. Please note that we are obliged to release information concerning releases to the environment so forms seeking to withhold that will be rejected.

I am enclosing documents to prove that some of the information is confidential. ☐

Please list the documents you are including to support your claim. Continue on a separate sheet if you need to.

Part 1 About you and the site

1.1 Permit number (see note 2)

Reference number of permit for site

Site reference number

1.2 Operator's details

Operator's name

Site address

Postcode

Part 1 About you and the site, continued

Contact numbers, including the area code

Phone

Fax

Mobile

Email

1.3 Calendar year this report covers

Part 2 Releases to air (see note 3)

Please see the guidance notes in part 6.

Releases to air				
Radionuclide	Annual reporting threshold	Total releases n/a, brt or release (See note 3)	Metric unit	Method M, C or E (See note 4)
Tritium	100 GBq			
Carbon-14	1 GBq			
Fluorine-18	100 GBq			
Sulphur-35	100 MBq			
Argon-41	1 TBq			
Krypton-85	1 TBq			
Technetium-99m	1 TBq			
Ruthenium-106	1 GBq			
Iodine-125	10 MBq			
Iodine-129	1 MBq			
Iodine-131	10 MBq			
Xenon-133	1 TBq			
Caesium-137	100 MBq			
Radon-222 (see note 5)	1 GBq			
Uranium alpha	10 MBq			
Plutonium alpha	1 MBq			
Americium-241	1 MBq			
Please account for any other releases which you have not reported above.				
Other Alpha Particulate (see note 7)	1 MBq			
Other Beta/Gamma Particulate (see note 7)	1 MBq			

Part 3 Releases to sewers (see note 3)

Please see the guidance notes in part 6.

Releases to sewers				
Radionuclide	Annual reporting threshold	Total releases n/a, brt or release (See note 3)	Metric unit	Method M, C or E (See note 4)
Total Alpha (see note 6)	1 MBq			
Total Beta/Gamma (but not tritium) (see note 6)	1 MBq			
Tritium	100 GBq			
Carbon-14	100 MBq			
Fluorine-18	10 GBq			
Sodium-22	100 MBq			
Phosphorus-32	1 MBq			
Phosphorus-33	10 MBq			
Sulphur-35	10 MBq			
Chromium-51	10 MBq			
Cobalt-57	10 MBq			
Cobalt-58	1 MBq			
Cobalt-60	1 MBq			
Gallium-67	100 MBq			
Selenium-75	1 MBq			
Strontium-89	1 GBq			
Strontium-90	10 MBq			
Yttrium-90	1 GBq			
Zirconium-95	1 MBq			
Niobium-95	1 MBq			
Technetium-99 (do not use for Tc-99m)	1 MBq			
Technetium-99m	10 GBq			
Ruthenium-106	100 MBq			
Indium-111	100 MBq			
Antimony-125	100 MBq			
Iodine-123	1 GBq			
Iodine-125	100 MBq			
Iodine-129	10 MBq			
Iodine-131	100 MBq			
Caesium-134	10 MBq			
Caesium-137	10 MBq			
Cerium-144	100 MBq			
Samarium-153	100 MBq			
Erbium-169	100 GBq			
Thallium-201	1 GBq			
Thorium-230	10 MBq			
Thorium-232	10 MBq			
Uranium alpha	100 MBq			

Part 3 Releases to sewers (see note 3), continued

Releases to sewers				
Radionuclide	Annual reporting threshold	Total releases n/a, brt or release (See note 3)	Metric unit	Method M, C or E (See note 4)
Neptunium-237	10 MBq			
Plutonium alpha	10 MBq			
Plutonium-241	100 MBq			
Americium-241	100 MBq			
Curium-242	100 MBq			
Please account for any other releases which you have not reported above.				
Other Alpha (see note 7)	1 MBq			
Other Beta/Gamma (see note 7)	1 MBq			

Part 4 Releases to controlled waters (see note 3)

Please see the guidance notes in part 6.

Releases to controlled waters					
Radionuclide	Annual reporting threshold	Total releases n/a, brt or release (See note 3)	Metric unit	Media R, S or E (See note 3)	Method M, C or E (See note 4)
Total Alpha (see note 6)	1 MBq				
Total Beta/Gamma (but not tritium) (see note 6)	1 MBq				
Tritium	1 TBq				
Carbon-14	100 MBq				
Sulphur-35	10 GBq				
Cobalt-60	10 MBq				
Strontium-90	100 MBq				
Yttrium-90	1 GBq				
Zirconium-95	1 GBq				
Niobium-95	100 MBq				
Technetium-99 (do not use for Tc-99m)	1 GBq				
Ruthenium-106	1 GBq				
Antimony-125	10 GBq				
Iodine-129	100 MBq				
Caesium-134	10 MBq				
Caesium-137	100 MBq				
Cerium-144	1 GBq				
Thorium-230	10 MBq				
Thorium-232	10 MBq				
Uranium alpha	100 MBq				
Neptunium-237	100 MBq				
Plutonium alpha	100 MBq				
Plutonium-241	10 GBq				
Americium-241	100 MBq				
Curium-242	10 GBq				
Please account for any other releases which you have not reported above.					
Other Alpha (see note 7)	1 MBq				
Other Beta/Gamma (see note 7)	1 MBq				

Part 5 Explanation and declaration

5.1 Explanation notes

Please let us know why your releases and transfers have changed from previous years. Continue on a separate sheet if you need to. If you have significant unexplained discharges we may need to seek further details, so please include any information you believe may be helpful.

5.2 What happens next

Send the filled-in form and any other documents to your local Environment Agency Officer.

Remember to keep a copy for your own records.

5.3 The Data Protection Act 1998

We, the Environment Agency, will process the information you provide to:

- create, maintain and publish your Pollution Inventory report;
- keep the public registers up to date.

We may also process or release the information to:

- offer you documents or services relating to environmental matters;
- consult the public, public organisations and other organisations (for example, the Health and Safety Executive, local authorities, the emergency services, the Department for Environment, Food and Rural Affairs) on environmental issues;
- carry out research and development work on environmental issues;
- provide information from the public register to anyone who asks;
- prevent anyone from breaking environmental law, investigate cases where environmental law may have been broken, and take any action that is needed;
- assess whether customers are satisfied with our service, and to improve our service; and
- respond to requests for information under the Freedom of Information Act 2000 and the Environmental Information Regulations 2004 (if the Data Protection Act allows).

We may pass the information on to our agents or representatives to do these things for us.

Part 5 Explanation and declaration, continued

5.4 Declaration

If you make a statement that is false or misleading, you may be committing an offence under the Environmental Permitting (England and Wales) Regulations 2010.

I declare that as far as I know, the information on this form is true.

Tick this box to confirm that you understand and agree with the declaration above. ☐

Name

Title (Mr, Mrs, Miss and so on) _____

First name _____

Last name _____

Position

Today's date (DD/MM/YYYY)

If you have good reason for not wanting to sign the form (for example, your personal security), pass the form to a senior manager who is willing to sign it. If this is not possible, you will need to write to your local Environment Agency office to explain your concerns and get them to agree to you sending both a signed and unsigned form. We will place the unsigned form on the public register.

Part 6 Guidance notes

1 Radioactive Substances Regulation (RSR) reporting

Permits for radioactive substances are issued for England by the Environment Agency under the Environmental Permitting (England and Wales) Regulations 2010, previously under the Radioactive Substances Act 1993. Anyone who holds a permit for disposal of radioactive waste in the form of open sources listed below must provide the information we ask for.

- Disposals to air,
- Disposals to controlled waters, or
- Disposals to sewers.

You do not need to report disposal of radionuclides which are exempt from permitting or fall outside the definition of radioactive waste, for example, those not greater than the limits specified in Table 2 of the Environmental Permitting (England and Wales) (Amendment) Regulations 2011. You do not need to report disposals of very low level waste. You must not report disposals of sealed sources. You do not need to report transfers of radioactive waste (see below).

You should make your report online using the system available at: <https://www.gov.uk/government/collections/pollution-inventory-reporting>. If you cannot report online you can use this form.

2 Permit number

Please enter the permit number for the main (generally the original) radioactive substances permit for the organisation on the site. Nuclear sites should enter the number used for charging purposes for the site. Numbers should be in the form of AA1111 or AA1111XY. Please contact your local Environment Agency office if you cannot access the system.

3 Releases

Releases to air mean those disposals to air from discharge points which are specified in the permit, together with fugitive releases.

Releases to sewers or controlled waters mean those disposals which are specified as such in the permit. In the case of controlled waters you need to specify the water as sea or coastal waters (S), estuary (E) or river or inland water (R). The definitions you should use for the purposes of this form are shown below.

- Sea or coastal waters are those waters up to three miles from the coast.
- Estuary is defined as the transitional area at the mouth of a river between fresh water and coastal waters.
- Rivers and inland waters include surface fresh waters which are not part of, and are upstream from, an estuary.

If you are not sure about which category you should use please contact your local Officer.

Release, brt or n/a

You must put an entry for each radionuclide listed, in the 'Total release' column. Put either your release data, 'brt' or 'n/a' in each box.

4 Release value

If a release above the reporting threshold takes place, you should report the amount released as radioactivity in units of (Becquerels) or multiples of Bq (MBq, GBq, TBq or PBq – see your permit for explanation of these terms).

You should use two significant figures when reporting the quantity of activity released (for example, 4.2 GBq rather than 4.21 GBq).

brt – Below reporting threshold

If the release is below the relevant annual reporting threshold shown, enter this on the reporting form as brt.

n/a – Not applicable

If you do not release this radionuclide to a particular method of release, you should enter this on the reporting form as n/a.

Measurement, calculation and estimation

You must say how you have decided on the value of each release. There are three ways of doing this.

Measurement (M) – releases you assess from direct monitoring results, based on actual monitoring of a radionuclide using a given discharge route, including:

- spot or flow-proportional sampling of effluent in a tank and subsequent analysis.

Calculation (C) – releases based on calculations specific to the plant or operation, including:

- adding up the total amount of radioactivity which has been released to sewers, using records of the volumes of laboratory solutions and their concentration, which have been disposed of to drains in laboratories.

Estimation (E) – releases based on best estimates, including:

- arriving at figures for releases to the air and sewers based on previous experience of the likely percentage of activity released from a particular type of experiment and the number of these experiments carried out in a year.

If uncertain which category to use, put E.

5 Radon-222

You only need to report radon-222 releases to air if there is a specific limit for this radionuclide in your authorisation.

6 Total alpha and total beta/gamma (not including tritium) releases to controlled water or sewers

Everyone must report the total alpha and total beta/gamma (not including tritium) releases to controlled water or sewers. This is so we can collect information on releases to meet the targets in the UK Radioactive Discharge Strategy (July 2009). You do not need to report these substances to air as there are no targets for these in the Strategy.

Many operators do not measure total alpha or total beta/gamma to meet a permit limit (normally non-nuclear sites). If so you should work out the total individual releases of all alpha-emitting and all beta/gamma-emitting radionuclides (but not tritium) for reporting purposes. You should report all non-alpha-emitting radionuclides in the total beta/gamma category, except tritium. For example, you should report positron emitters and electron-capture radionuclides as total beta/gamma. You do not need to include tritium from the beta/gamma category because of the relatively large releases and significantly lower radiological effect compared with other beta/gamma radionuclides.

7 Other alpha and other beta/gamma

You may have authorised releases of other radionuclides which are not listed on the form. You should account for these releases under the generic categories of other alpha and other beta/gamma. You should report all non-alpha-emitting radionuclides in the other beta/gamma category.

For releases to air, we give details of the categories of other alpha particulate and other beta/gamma particulate. We believe it is unreasonable to expect operators to measure all releases of short-half-life noble gases. Because of this, we have limited the other alpha and other beta/gamma categories to particulate releases. This will mean that releases of some short-lived positron emitters are not reported. For some radionuclides, releases could be either particles or gases and you can choose to report these as other particulate.

8 Transferring radioactive waste

Although many permits require reporting of transfers of radioactive waste, we no longer want this to be done and have removed the relevant section from the reporting system. We will take no action against operators for not reporting transfers.