

## 1990 No. 115

## RADIOACTIVE SUBSTANCES

**The Radioactive Substances (Substances of Low Activity)  
Exemption Order (Northern Ireland) 1990**

Made . . . . . 16th March 1990

Coming into operation . . . . . 1st May 1990

The Department of the Environment, in exercise of the powers conferred by sections 2(6) and (7), 6(5), 7(4) and 21(2) of the Radioactive Substances Act 1960(a) and now vested in it(b) and of every other power enabling it in that behalf, hereby makes the following Order:

*Citation and commencement*

1. This Order may be cited as the Radioactive Substances (Substances of Low Activity) Exemption Order (Northern Ireland) 1990 and shall come into operation on 1st May 1990.

*Interpretation*

2.—(1) In this Order—

“the Act” means the Radioactive Substances Act 1960;

“activity”, expressed in becquerels, means the number of spontaneous nuclear transformations occurring in a period of one second in a radioactive substance;

“closed source” means an object free from patent defect which is radioactive material solely because it consists of one or more radionuclides firmly incorporated on or in, or sealed within, solid inert non-radioactive material so as to prevent in normal use the dispersion of any radioactive material;

“decay products” means, in relation to any radionuclide, the radionuclides succeeding it in the radioactive series in which it and they occur;

“half life” means the time taken for the activity of a radionuclide to lose half its value by decay.

(2) In determining the activity of any solid radioactive material or waste for the purposes of Article 3 or 4(a) there shall be disregarded the activity of any element specified in column 1 of Schedule 1 to the extent that the activity of any such element does not exceed the activity per gram mentioned opposite thereto in column 2.

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(a) 1960 c. 34.

(b) S.R. & O. (N.I.) 1964 No. 205 Art. 2; S.R. & O. (N.I.) 1965 No. 13 Art. 2; S.R. & O. (N.I.) 1972 No. 111 Art. 3(1); S.R. & O. (N.I.) 1973 No. 504 Art. 4.

(3) The Interpretation Act (Northern Ireland) 1954(a) shall apply to this order as it applies to a Measure of the Northern Ireland Assembly.

*Further exemption from registration under section 1 of the Act*

3. All persons are exempted from registration under section 1 of the Act in respect of the keeping and use on any premises of solid radioactive material, other than a closed source, which is substantially insoluble in water, the activity of which does not exceed 0.4 becquerels per gram of mass.

*Exclusion of certain radioactive waste from section 6 of the Act*

4. Radioactive waste of the following descriptions is excluded from the provisions of section 6(1) and (3) of the Act (authorisation required to dispose of radioactive waste), namely—

- (a) a solid, other than a closed source, which is substantially insoluble in water, the activity of which, when it becomes waste, does not exceed 0.4 becquerels per gram of mass;
- (b) an organic liquid which is radioactive solely because of the presence of carbon 14, or tritium (or both), the activity of which, when it becomes waste, does not exceed 4 becquerels per millilitre;
- (c) a gas containing one or more radionuclides none of which, nor the decay products of which, has a half life greater than 100 seconds.

*Revocation*

5. The Orders mentioned in Schedule 2 are hereby revoked.

Sealed with the Official Seal of the Department of the Environment on  
16th March 1990.

(L.S.)

*Ian B. McQuiston*

Assistant Secretary

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(a) 1954 c. 33 (N.I.).

## SCHEDULE 1

Article 2(2)

## Specified Elements

<i>Column 1 Element</i>	<i>Column 2 Becquerels per gram</i>
Actinium	0.37
Lead	0.74
Polonium	0.37
Protoactinium	0.37
Radium	0.37
Thorium	2.59
Uranium	11.10

## SCHEDULE 2

Article 5

## Revocations

<i>Orders revoked</i>	<i>References</i>
1. The Radioactive Substances (Attachments to Lightning Conductors) Exemption Order (Northern Ireland) 1963	S.R. & O. (N.I.) 1963 No. 216
2. The Radioactive Substances (Thorium-X) Exemption Order (Northern Ireland) 1963	S.R. & O. (N.I.) 1963 No. 221
3. The Radioactive Substances (Tokens for Vending Machines) Exemption Order (Northern Ireland) 1968	S.R. & O. (N.I.) 1968 No. 139
4. The Radioactive Substances (Vouchers for Encashment Machines) Exemption Order (Northern Ireland) 1968	S.R. & O. (N.I.) 1968 No. 140

*(This note is not part of the Order.)*

This Order provides for exemptions and exclusions under the Radioactive Substances Act 1960 ("the Act") in respect of certain substances of low radioactivity.

Article 3 exempts persons from registration under section 1 of the Act in respect of the keeping and use on any premises of the material described in that Article.

Article 4 excludes from section 6(1) and (3) of the Act (prohibition on the disposal of radioactive waste) the disposal of—

- (a) certain solid waste the activity of which does not exceed 0.4 becquerels per gram;
- (b) organic liquid waste whose only radioactive content is carbon 14 or tritium, or both, the activity of which does not exceed 4 becquerels per millilitre; and
- (c) certain gases with a half life not exceeding 100 seconds.

Article 5 revokes the Orders mentioned in Schedule 2.

Measurements of radioactivity which formerly were specified in curies are now specified in becquerels, following the adoption of the International System of Units (SI Units). 0.37 becquerels are approximately equivalent to  $10^{-5}$  microcuries.