

1962. No. 244

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ATOMIC ENERGY AND RADIOACTIVE SUBSTANCES**The Radioactive Substances (Uranium and Thorium) Exemption Order
(Northern Ireland), 1962**

ORDER, DATED 21ST DECEMBER, 1962, MADE BY THE MINISTRY OF HEALTH AND LOCAL GOVERNMENT UNDER SECTIONS 2(6) AND (7), 6(5) AND 7(4) OF THE RADIOACTIVE SUBSTANCES ACT, 1960.

The Ministry of Health and Local Government, in exercise of the powers conferred on it by Sections 2(6) and (7), 6(5) and 7(4) of the Radioactive Substances Act, 1960(a), 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 (Uranium and Thorium) Exemption Order (Northern Ireland), 1962, and shall come into operation on the 1st day of December, 1963.

Interpretation

2.—(1) In this Order—

“the Act” means the Radioactive Substances Act, 1960;

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

“hardener alloy” means an alloy of magnesium falling within Article 4(a)(ii) and containing by weight more than four per cent. of natural thorium;

“magnesium alloy” means an alloy of magnesium falling within Article 4(a)(ii) and containing by weight four per cent. or less of natural thorium;

“month” means any period of four consecutive weeks;

“natural thorium” means a mixture of thorium extracted by a chemical process or processes the purpose or one of the purposes of which was the production of thorium, and decay products of thorium, being a mixture in which—

(a) the number of microcuries of thorium giving rise to the emission of alpha particles does not exceed 1·7 per gramme of thorium; and

(b) the number of microcuries of any of the decay products of thorium 232 does not exceed the number of microcuries of thorium 232 and the number of microcuries of any of the decay products of thorium 230 does not exceed the number of microcuries of thorium 230; and

(c) the decay products of isotopes of thorium consist of the remainder (if any) of the decay products present with those isotopes at the time the thorium was extracted and the decay products formed since that time through radioactive decay occurring in the mixture;

“natural uranium” means a mixture of uranium extracted by a chemical process or processes the purpose or one of the purposes of which was the

production of uranium, and decay products of uranium, being a mixture in which—

- (a) the uranium comprises the isotopes 238, 235 and 234 and contains by weight not more than 0.72 per cent. of the isotope 235; and
- (b) the number of microcuries of any of the decay products of uranium 238 does not exceed the number of microcuries of uranium 238, and the number of microcuries of any of the decay products of uranium 235 does not exceed the number of microcuries of uranium 235; and
- (c) the decay products (other than uranium 234) of isotopes of uranium consist of the remainder (if any) of the decay products present with those isotopes at the time the uranium was extracted and the decay products formed since that time through radioactive decay occurring in the mixture;

“refuse disposal authority” means a local authority within the meaning of the Public Health Acts (Northern Ireland), 1878 to 1962, acting in pursuance of statutory powers or duties relating to the removal and disposal of refuse;

“the Schedule 3 elements” means the elements specified in column 1 of Schedule 3 to the Act;

“thoria ware” means fired ceramic and refractory articles made wholly or substantially of thorium dioxide;

“thoriated tungsten” means thoriated tungsten falling within Article 4(a)(ii) and containing by weight four per cent. or less of natural thorium;

“weight” means weight ascertained by weighing or, where it is not reasonably practicable to ascertain weight by weighing, weight as calculated by any generally accepted method;

and any reference to an exempted substance or article is a reference to a substance or article falling within Article 4.

(2) For the purposes of paragraphs (a) and (b) of Article 6 and paragraphs (2) and (3) of Article 7, all premises in the same occupation and lying within the same curtilage shall together be treated as the premises in respect of which the conditions in those paragraphs apply.

(3) The Interpretation Act (Northern Ireland), 1954(a), applies to the interpretation of this Order as it applies to the interpretation of an Act of the Parliament of Northern Ireland.

3. Subject to the provisions of Articles 5 and 6, any person who, on any premises which are used for the purposes of any undertaking carried on by him, keeps or uses or causes or permits to be kept or used any radioactive material to which this Article applies is hereby granted exemption from registration under Section 1 of the Act (which provides for the registration of persons who keep or use radioactive material) in respect of those premises and the keeping and use thereon of that radioactive material.

Descriptions of radioactive material to which exemption relates

4. Article 3 applies to radioactive material falling within any of the following descriptions,—

- (a) a solid or liquid substance which—

(a) 1954. c. 33.

- (i) contains natural uranium, and is radioactive material solely because of the presence of one or more of the Schedule 3 elements in the natural uranium; or
 - (ii) contains natural thorium, and is radioactive material solely because of the presence of one or more of the Schedule 3 elements in the natural thorium; or
 - (iii) contains both natural uranium and natural thorium, and is radioactive material solely because of the presence of one or more of the Schedule 3 elements in the natural uranium and the natural thorium or either of them;
- (b) an article made wholly from such a substance;
- (c) an article which is made partly from, or incorporates, such a substance and which is radioactive material solely because of the presence of that substance.

Exemption without any limitation or condition

5. The exemption granted by Article 3 in respect of the keeping and use of material falling within Article 4, being material of any of the following descriptions,—

- (a) a solid or liquid substance falling within paragraph (a)(ii) of Article 4 and containing by weight four per cent. or less of natural thorium;
- (b) an article made wholly or partly from, or incorporating, such a substance;
- (c) hardener alloy kept or used solely for the production of magnesium alloy;
- (d) an incandescent mantle;
- (e) an article of thoria ware;

is granted without any limitation or condition.

Exemption subject to conditions

6. The exemption granted by Article 3 in respect of the keeping and use of material falling within Article 4, not being material falling within Article 5, is granted subject to the conditions that—

- (a) the weight of all the uranium and thorium contained in all the substances falling within paragraph (a) of Article 4 (including any of those substances contained in articles) present on the premises at any one time does not, in the aggregate, exceed two kilogrammes;
- (b) the weight of all the uranium and thorium contained in all the substances falling within the said paragraph (a) (including any of those substances contained in articles) brought on to the premises in any one month does not, in the aggregate, exceed two kilogrammes; and
- (c) if the material consists of a substance (but not if it consists of an article) kept for sale, it is kept in the immediate container in which it was supplied.

Exclusion of radioactive waste from Sections 6 and 7 of the Act

7.—(1) Solid radioactive waste falling within any of the following descriptions,—

- (a) magnesium alloy or thoriated tungsten;
- (b) an exempted article made wholly or partly from, or incorporating, magnesium alloy or thoriated tungsten;

- (c) dross arising from the use of hardener alloy (and no other radioactive material) solely for the production of magnesium alloy or from the melting of magnesium alloy, being waste which, if it were not waste, would be radioactive material;
- (d) a substance, or an article, which is radioactive waste solely because it has been contaminated in the course of the keeping or use of magnesium alloy, thoriated tungsten or an exempted article of the kind referred to in sub-paragraph (b) of this paragraph, or by contact with or proximity to other waste falling within any of the preceding sub-paragraphs or this sub-paragraph;
- (e) an exempted incandescent mantle,

is hereby excluded from the provisions of Section 6(1) of the Act (which relates to the disposal of radioactive waste), subject to the conditions specified in paragraph (4).

(2) Solid radioactive waste (other than waste falling within paragraph (1)) falling within either of the following descriptions,—

- (a) waste which, if it were not waste, would be an exempted substance substantially insoluble in water or an exempted article (other than an article of thoria ware) made wholly or partly from, or incorporating, such a substance;
- (b) a substance, or an article, which is radioactive waste solely because it has been contaminated in the course of the keeping or use of an exempted substance of the kind referred to in sub-paragraph (a) or an exempted article of the kind referred to in that sub-paragraph, or by contact with or proximity to other waste falling within that sub-paragraph or this sub-paragraph,

is hereby excluded from the provisions of Section 6(1) of the Act, subject to the condition that the weight of all the uranium and thorium contained in all the waste falling within this paragraph disposed of in any one day on or from the premises does not, in the aggregate, exceed one hundred grammes, and subject also to the conditions specified in paragraph (4).

(3) Solid radioactive waste consisting of exempted thoria ware is hereby excluded from the provisions of Section 6(1) of the Act, subject to the condition that, in any one month, not more than twenty-five kilogrammes of that waste are disposed of on or from the premises, and subject also to the conditions specified in paragraph (4).

(4) The conditions to which the preceding paragraphs refer are—

(a) that the waste is disposed of by one of the following means,—

- (i) causing or permitting its removal as refuse by a refuse disposal authority or their contractors;
- (ii) depositing it, or causing or permitting its removal (by persons other than a refuse disposal authority or their contractors) for deposit, at, on or in a tip, dump or pit used solely for the deposit of substantial quantities of refuse most of which is not radioactive waste; and

(b) that, where it is disposed of by deposit at, on or in a place referred to in sub-paragraph (a)(ii), the waste is not deposited in a part of that place which is a part used solely for the deposit of radioactive waste.

(5) Where it is waste which has been received as refuse by a refuse disposal authority or their contractors, solid radioactive waste falling within para-

graph (1), paragraph (2) or paragraph (3) is hereby excluded from the provisions of Section 6(3) of the Act absolutely.

(6) Where it is waste which has been received (by persons other than a refuse disposal authority or their contractors) for disposal by deposit at, on or in a place referred to in paragraph (4)(a)(ii), solid radioactive waste falling within paragraph (1), paragraph (2) or paragraph (3) is hereby excluded from the provisions of Section 6(3) of the Act, subject to the conditions that—

- (a) it is disposed of by deposit at, on or in such a place; and
- (b) it is not deposited in a part of any such place which is a part used solely for the deposit of radioactive waste.

(7) Solid radioactive waste falling within paragraph (1), paragraph (2), or paragraph (3) is hereby excluded from the provisions of Section 7(1) of the Act (which relates to the accumulation of radioactive waste), subject to the condition that it is disposed of as soon as practicable.

Sealed with the Official Seal of the Ministry of Health and Local Government this 21st day of December, nineteen hundred and sixty-two.

(L.S.)

Wm. J. Morgan,

Minister of Health and Local Government.

EXPLANATORY NOTE

(This Note is not part of the Order, but is intended to indicate its general purport.)

This Order exempts persons (in some cases conditionally) from registration under Section 1 of the Radioactive Substances Act, 1960, in respect of the keeping and use of "radioactive material" within the meaning of Section 18(1) of that Act consisting of substances containing natural uranium (defined in the Order) or natural thorium (defined in the Order) or both natural uranium and natural thorium, and articles made from such substances. (These substances and articles include thoriated tungsten used for electric lamp filaments, certain hard metal alloys, incandescent mantles, heat-resisting ceramics and refractories and uraniumated glass used for optical instruments.)

It also excludes (in some cases conditionally) from Sections 6(1) and (3) and 7(1) of that Act (which prohibit the disposal and accumulation of radioactive waste without authorisation) certain descriptions of "radioactive waste" within the meaning of Section 18(4) of that Act (comprising mainly insoluble solids) arising directly or indirectly from the keeping or use of substances or articles exempted by the Order.