

STATUTORY INSTRUMENTS

1983 No. 919

ATOMIC ENERGY AND RADIOACTIVE SUBSTANCES

NUCLEAR MATTER

The Nuclear Installations (Prescribed Sites) Regulations 1983

| | | |
|-------------------------------|---------|--------------------|
| <i>Made</i> | - - - - | 28th June 1983 |
| <i>Laid before Parliament</i> | | 30th June 1983 |
| <i>Coming into Operation</i> | | 1st September 1983 |

The Secretary of State for Energy (as to England and Wales) and the Secretary of State for Scotland (as to Scotland), in exercise of the powers conferred by section 16(1) of the Nuclear Installations Act 1965(a) (hereinafter referred to as "the Act") and of all other powers them enabling, hereby jointly make the following Regulations:—

Commencement and Citation

1. These Regulations may be cited as the Nuclear Installations (Prescribed Sites) Regulations 1983 and shall come into operation on the 1st September 1983.

Interpretation

2. In these Regulations the following expressions have the meanings hereby assigned to them, that is to say—

"A2 values" means the values in curies specified

- (i) for single radionuclides, in paragraphs 403 to 405 of the IAEA Regulations;
- (ii) for mixed fission products, in paragraph 406 of those Regulations; and
- (iii) for a single radioactive decay chain in which the radionuclides are present in their naturally occurring proportions, in paragraph 407 of those Regulations:

"associated nuclear fuel" means a quantity of nuclear fuel intended and ready for use or in use or which has been used in a nuclear reactor and which is held in, or on the same site as, that nuclear reactor which does not exceed the quantity of nuclear fuel specified in the nuclear site licence relating to that nuclear reactor or any consent or approval granted under that site licence;

"fissile material" means plutonium 239, plutonium 241, uranium 233,

(a) 1965 c. 57; section 16(1) was amended by the Energy Act 1983 (c. 25), section 27(1).

uranium 235 (where the mass of the isotope uranium 235 exceeds 1% of the total mass of all the uranium isotopes present), or any material containing any of them;

“form” in relation to any radionuclide means the state in which it is found on the site and in particular whether or not it is a sealed source;

“group” in relation to radionuclides means any of the four groups into which radionuclides are classified in the Table set out in Schedule 1 to these Regulations;

“the IAEA Regulations” means the Regulations for the Safe Transport of Radioactive Materials 1973 Revised Edition (As Amended) published by the International Atomic Energy Agency in 1979;

“small nuclear reactor” means a thermal neutron nuclear reactor designed to operate at a thermal power output not exceeding 600KW;

“relevant group limit” means in relation to a radionuclide the limit in curies set out in the Table in Schedule 1 to these Regulations as being appropriate to the group to which that radionuclide belongs and in the case of a radionuclide which is in the form of a sealed source means the figure in the third column of that Table and in any other case the figure set out in the fourth column of that Table;

“sealed source” means a radionuclide which is either sealed in a container or bonded wholly within material (otherwise than solely for the purpose of storage, transport or disposal) and includes the immediate container or bonding, but does not include any nuclear fuel element.

Prescribed Sites

3. There is hereby prescribed for the purposes of section 16(1) of the Act any site in respect of which a nuclear site licence is for the time being in force on which:

- (1) the quantity of radionuclides present at any time is such that their total activity does not exceed the limits of activity prescribed in regulation 4 of these Regulations; or
- (2) the only nuclear reactor is a small nuclear reactor and the quantity of radionuclides outside the reactor other than associated nuclear fuel present at any time is such that their total activity does not exceed one half of the limits of activity prescribed in regulation 4 of these Regulations; and
- (3) in either case the total mass of fissile materials (other than those comprised in associated nuclear fuel) present at any time does not exceed the limits prescribed by regulation 5 of these Regulations.

Prescribed Limits of Activity

4.—(1) Subject to the provisions of paragraph (2) and (3) below the limit of activity prescribed by this regulation shall be:

- (a) in the case of a site on which there is only a single radionuclide or on which there are several radionuclides all of which are in the same group and in the same form, the relevant group limit; and
- (b) in any other case, such that the sum of the fractions produced by

dividing the activity of each radionuclide by its relevant group limit does not exceed one.

(2) Where the identity of a radionuclide is not known it shall be deemed to be included in group 1.

(3) For the purposes of the calculation to be made in accordance with paragraph (1)(b) of this regulation, where the respective activities of any of the radionuclides present are not known all such radionuclides shall be deemed to belong to the most restrictive group among them.

Additional limits for fissile material

5. For the purpose of regulation 3 of these Regulations total mass limits for fissile material shall be:

- (a) for a site on which there is only one of the materials specified in the first column of the Table set out in Schedule 2 to these Regulations, the mass set out in the second column of the said Table and
- (b) such that for a site on which there is more than one of the materials specified in column 1 of the Table set out in Schedule 2 to these Regulations, the sum of the fractions obtained by dividing the mass of each of the materials present on that site by the limit set out in the second column of the said Table in respect of that material shall not exceed one.

Dated 24th June 1983.

Peter Walker,
Secretary of State for Energy.

Dated 28th June 1983.

George Younger,
Secretary of State for Scotland.

SCHEDULE 1

Regulation 1

| Group | Radionuclides within the Group | Limit in Curies for radionuclides | |
|-------|---|-----------------------------------|-------------------|
| | | in the form of sealed sources | in any other form |
| 1 | Radionuclides with A2 values not exceeding 0.01 curie | 200 | 20 |
| 2 | Radionuclides with A2 values exceeding 0.01 curie and not exceeding 1 curie | 2000 | 200 |
| 3 | Radionuclides with A2 values exceeding 1 curie and not exceeding 100 curies | 50,000 | 5000 |
| 4 | Radionuclides with A2 values exceeding 100 curies | 500,000 | 50,000 |

SCHEDULE 2

Regulation 5

| Fissile Material | Limits in grammes of fissile nuclide |
|--|---|
| Plutonium 239 | 375 |
| Plutonium 241 | 375 |
| Uranium 233 | 375 |
| Uranium 235 (when the mass of the uranium 235 exceeds 1% of the total mass of all the uranium isotopes present) | 600 |

EXPLANATORY NOTE

(This Note is not part of the Regulations.)

1. These Regulations prescribe the sites whose licensees are subject to a lower limit of liability per incident under section 16(1) of the Nuclear Installations Act 1965 as amended by the Energy Act 1983.

2. Essentially the sites prescribed are the sites of small installations. They are prescribed in regulation 3 by reference to the type and designed thermal power output of any nuclear reactor with its associated fuel (defined by regulation 2) and by reference to the activity of other radionuclides which may also be present. Higher levels of activity are permitted if there is no nuclear reactor. They are also allowed in respect of radionuclides in the form of sealed sources which are defined.

3. The Regulations provide for cases where nuclear matter of different levels of activity is present. In such cases the activity of each such radionuclide is to be divided by the limit set for its class and the limit is set by adding together all the fractions thus produced. The result must not be more than one.

4. The Regulations provide (regulation 5) overall limits of mass for fissile material. The levels are lower than critical mass. Fissile material which may be in associated nuclear fuel is excluded in applying the limits.

5. The amount of associated nuclear fuel which may be held on a site is controlled under the nuclear site licence.

6. The Regulations for the Safe Transport of Radioactive Materials 1973 Revised Edition (As Amended) published in Vienna in 1979 by the International Atomic Energy Agency are on sale at HMSO.

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