

1985 No. 273

HEALTH AND SAFETY

Ionising Radiations Regulations (Northern Ireland) 1985

Made 14th October 1985

Coming into operation—
for the purposes of regulation 10 18th November 1985
for all other purposes 1st January 1986

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The Department of Agriculture, the Department of Economic Development, the Department of the Environment and the Department of Health and Social Services, acting jointly as the Department concerned(a) in exercise of the powers conferred by Articles 2(5), 17(1), (2), (3), (4), (5) and (6), 40(2) and (4), 54(1), (3) and (5) and 55(2) of and paragraphs 1(1), (2) and (4), 2, 5, 6, 7, 8, 9, 10, 12, 13, 14(1), 15, 19 and 20 of Schedule 3 to the Health and Safety at Work (Northern Ireland) Order 1978(b) and of every other power enabling them in that behalf, after consultation in accordance with Article 46(1) of that Order with the Health and Safety Agency for Northern Ireland, the National Radiological Protection Board and such other bodies as appear to them to be appropriate, hereby make the following Regulations:

PART I

INTERPRETATION AND GENERAL

Citation and commencement

1. These Regulations may be cited as the Ionising Radiations Regulations (Northern Ireland) 1985 and shall come into operation—

- (a) for the purposes of regulation 10 on 18th November 1985;
- (b) for all other purposes on 1st January 1986.

Interpretation

2.—(1) In these Regulations—

- “appointed doctor” means a registered medical practitioner who is for the time being appointed in writing by the Department for the purposes of these Regulations;
- “approved” means approved for the time being by the Department;
- “approved dosimetry service” means a dosimetry service approved in accordance with regulation 15;
- “calendar year” means a period of twelve calendar months beginning with 1st January;
- “classified person” means a person who has been so designated in accordance with regulation 9(1);
- “contamination” means the contamination by any radioactive substance of any surface (including any surface of the body or clothing) or any part of absorbent objects or materials or the contamination of liquids or gases by any radioactive substance;

(a) See Article 2(2) of S.I. 1978/1039 (N.I. 9)

(b) S.I. 1978/1039 (N.I. 9)

- “controlled area” means an area which has been so designated by the employer in accordance with regulation 8(1) or (3);
- “the Department” means the Department of Economic Development;
- “dose” means, in relation to ionising radiation, any dose quantity or sum of dose quantities mentioned in Schedule 1;
- “dose limit” means, in relation to persons of a specified class, the dose limit specified in Schedule 1 in relation to a person of that class and is with respect to—
- (a) the whole body, the relevant dose limit specified in Part I;
 - (b) any individual organ or tissue except the lens of the eye, the relevant dose limit specified in Part II;
 - (c) the lens of the eye, the relevant dose limit specified in Part III;
 - (d) the abdomen of a woman of reproductive capacity, the dose limit specified in Part IV; and
 - (e) the abdomen of a pregnant woman, the dose limit specified in Part V;
- “dose rate” means, in relation to a place, the rate at which a person or part of a person would receive a dose of ionising radiation from external radiation if he were at that place;
- “dose record” means, in relation to a person, the record of the doses received by that person as a result of his exposure to ionising radiation, being the record made and maintained on behalf of the employer by the approved dosimetry service in accordance with regulation 13(3)(a);
- “employment medical adviser” means an employment medical adviser appointed under Article 48 of the Health and Safety at Work (Northern Ireland) Order 1978;
- “external radiation” means, in relation to a person, ionising radiation coming from outside the body of that person;
- “health record” means, in relation to an employee, the record of medical surveillance of that employee maintained by the employer in accordance with regulation 16(2);
- “instantaneous dose rate” means a dose rate averaged over one minute;
- “internal radiation” means, in relation to a person, ionising radiation coming from inside the body of that person;
- “ionising radiation” means gamma rays, X-rays or corpuscular radiations which are capable of producing ions either directly or indirectly;
- “local rules” means rules made in accordance with regulation 11(1);
- “maintained”, where the reference is to maintaining plant, apparatus or facilities, means maintained in an efficient state, in efficient working order and good repair;
- “medical exposure” means exposure of a person to ionising radiation for the purpose of his medical or dental examination or treatment which is conducted under the direction of a suitably qualified person and includes any such examination or treatment conducted for the purposes of research;
- “overexposure” means any exposure of a person to ionising radiation to the extent that the dose received by that person causes a dose limit relevant to that person to be exceeded;
- “qualified person” means a person who has been so appointed for the purposes of regulation 24(3) in accordance with regulation 10(7);
- “radiation generator” means any apparatus in which charged particles are accelerated in a vacuum vessel through a potential difference of more than

5 kilovolts (whether in one or more steps) except an apparatus in which the only such generator is a cathode ray tube or visual display unit which does not cause under normal operating conditions an instantaneous dose rate of more than $5 \mu\text{Sv h}^{-1}$ at a distance of 50 mm from any accessible surface;

“radioactive substance” means any substance having an activity concentration of more than 100 Bq g^{-1} and any other substance which contains one or more radionuclides whose activity cannot be disregarded for the purposes of radiation protection, and the term includes a radioactive substance in the form of a sealed source;

“radiation protection adviser” means a person who has been so appointed in accordance with regulation 10(1);

“sealed source” means a radioactive substance, other than any radioactive substance inside a nuclear reactor or any nuclear fuel element, bonded wholly within a solid inactive material or encapsulated within an inactive receptacle of, in either case, sufficient strength to prevent any dispersion of the substance under reasonably foreseeable conditions of use and shall include the bonding or encapsulation, except that where such bonding or encapsulation is solely for the purpose of storage, transport or disposal, the radioactive substance together with its bonding or encapsulation shall not be treated as a sealed source;

“short-lived daughters of radon 222” means polonium 218, lead 214, bismuth 214 and polonium 214;

“supervised area” means an area which has been so designated by the employer in accordance with regulation 8(2) or (3);

“time average dose rate” means, a dose rate averaged over any 8 hour working period;

“trainee” means a person aged 16 years or over (including a student) who is undergoing instruction or training which involves operations which would, in the case of an employee, be work with ionising radiation;

“transport” means, in relation to a radioactive substance, carriage of that substance on a road within the meaning of Article 2(2) of the Road Traffic (Northern Ireland) Order 1981(a) or through another public place (whether on a conveyance or not), or by rail, inland waterway, sea or air, and in the case of transport on a conveyance, a substance shall be deemed as being transported from the time that it is loaded onto the conveyance for the purpose of transporting it until it is unloaded from that conveyance, but a substance shall not be considered as being transported if—

(a) it is transported by means of a pipeline or similar means; or

(b) it forms an integral part of a conveyance and is used in connection with the operation of that conveyance;

“woman of reproductive capacity” means a woman who is made subject to the additional dose limit for a woman of reproductive capacity specified in Part IV of Schedule 1 by an entry in her health record made by an employment medical adviser or appointed doctor;

“work with ionising radiation” means any work—

(a) involving the production; processing, handling, use, holding, storage, moving, transport or disposal of any radioactive substance;

(b) involving the operation or use of any radiation generator; or

(c) in which there is any exposure of a person to an atmosphere containing the short-lived daughters of radon 222 at a concentration in air, averaged over

any 8 hour working period; of greater than $6.24 \times 10^{-7} \text{ Jm}^{-3}$ (0.03 working levels);

“working level” means the special unit of potential alpha energy concentration in air and is any combination of short-lived daughters of radon 222 in unit volume of air such that the total potential alpha energy concentration for complete decay to lead 210 is $2.08 \times 10^{-5} \text{ Jm}^{-3}$.

- (2) In these Regulations, any reference to—
- (a) an employer includes a reference to a self-employed person and any duty imposed by these Regulations on an employer in respect of his employee shall extend to a self-employed person in respect of himself;
 - (b) an employee includes a reference to—
 - (i) a self-employed person, and
 - (ii) a trainee who but for the operation of this sub-paragraph and paragraph (4) would not be classed as an employee;
 - (c) exposure to ionising radiation is a reference to exposure to ionising radiation arising from work with ionising radiation;
 - (d) a person entering, remaining in or working in a controlled or supervised area includes a reference to any part of a person entering, remaining in or working in any such area.
- (3) Except in regulation 33, in these Regulations any reference to the exposure of a person to ionising radiation shall not include a reference to the medical exposure of that person.
- (4) For the purposes of these Regulations and Part I of the Health and Safety at Work (Northern Ireland) Order 1978—
- (a) the word “work” shall be extended to include any instruction or training which a person undergoes as a trainee and the meaning of “at work” shall be extended accordingly; and
 - (b) a trainee shall, while he is undergoing instruction or training, be treated as the employee of the person whose undertaking (whether for profit or not) is providing that instruction or training and that person shall be treated as the employer of that trainee except that the duties to the trainee imposed upon the person providing instruction or training shall only extend to matters under the control of that person.
- (5) In these Regulations, where reference is made to a quantity specified in a numbered column of Schedule 2, that quantity shall be treated as being exceeded if—
- (a) where only one radionuclide is involved, the quantity of that radionuclide exceeds the quantity specified in the appropriate entry in Part I of Schedule 2; or
 - (b) where more than one radionuclide is involved, the quantity ratio calculated in accordance with Part II of Schedule 2 exceeds one.
- (6) Where any duty is imposed by these Regulations on an employer in respect of the exposure to ionising radiation of persons other than his employees, that duty shall only be imposed in respect of the exposure of those persons to ionising radiation arising from work with ionising radiation undertaken by that employer.
- (7) Duties under these Regulations imposed upon the employer shall also be imposed upon the manager of a mine (within the meaning of section 156 of the Mines Act (Northern Ireland) 1969(a)) in so far as those duties relate to the mine of which he is the manager and to matters under his control.

(8) Duties under these Regulations imposed upon the employer shall also be imposed upon the owner, occupier or agent of a quarry (within the meaning of Article 2 of the Quarries (Northern Ireland) Order 1983(a) in so far as those duties relate to the quarry or part of the quarry of which he is the owner, occupier or agent and to matters under his control.

(9) Duties under these Regulations imposed upon the employer shall also be imposed on the holder of a nuclear site licence under the Nuclear Installations Act 1965(b) in so far as those duties relate to the licensed site.

(10) Nothing in these Regulations shall be construed as preventing a person from entering or remaining in a controlled area or a supervised area where that person enters or remains in any such area—

- (a) in the due exercise of a power of entry conferred on him by or under any enactment; or
- (b) for the purpose of undergoing a medical exposure.

Application of these Regulations in relation to the short-lived daughters of radon 222

3. These Regulations shall apply to work with ionising radiation in which a person is exposed to the short-lived daughters of radon 222 as they apply to other work with ionising radiation, except that the following regulations shall not apply in relation to such exposure,—

- (a) regulation 14 (accident dosimetry);
- (b) regulation 18 (sealed sources and articles containing or embodying radioactive substances);
- (c) regulation 19 (accounting for radioactive substances);
- (d) regulation 20 (keeping of radioactive substances);
- (e) regulation 21 (transport and moving of radioactive substances);
- (f) regulation 22 (washing and changing facilities);
- (g) regulation 26 (special hazard assessments and reports);
- (h) regulation 31 (notification of certain occurrences);
- (i) regulation 33 (equipment used for medical exposure); and
- (j) regulation 34 (misuse of or interference with sources of ionising radiation).

Co-operation between employers

4. Where work with ionising radiation undertaken by an employer is likely to give rise to the exposure to ionising radiation of the employee of another employer, the employers concerned shall co-operate by the exchange of information or otherwise to the extent requisite to ensure that each such employer is enabled to comply with the requirements of these Regulations in so far as his ability to comply depends upon such co-operation.

Notification of certain work with ionising radiation

5.—(1) Subject to regulation 38(1) (which relates to transitional provisions), this regulation shall apply to any work with ionising radiation except—

- (a) work specified in Schedule 3; and
- (b) work carried on at a site licensed under section 1 of the Nuclear Installations Act 1965.

(2) Subject to paragraph (3) and regulation 38(2) (which relates to transitional provisions), an employer shall not undertake for the first time work with ionising radiation to which this regulation applies, unless at least twenty-eight days before

(a) S.I. 1983/150 (N.I. 4)

(b) 1965 c. 57

commencing that work or before such shorter time as the Department may agree, he has notified the Department of his intention to carry out such work and has furnished it with the particulars specified in Schedule 4.

(3) Where the only work with ionising radiation being undertaken is work in which a person is exposed to the short-lived daughters of radon 222, it shall be a sufficient compliance with paragraph (2) if the employer having control of the premises where the work is carried on makes the notification required by that paragraph forthwith after the work has commenced.

(4) Where an employer has notified work in accordance with paragraph (2), the Department may, by notice in writing served on him, require that employer to provide such additional particulars of that work as it may reasonably require, being any or all of the particulars specified in Schedule 5, and in such a case the employer shall furnish those particulars in such time as is specified in the notice or in such longer time as the Department may subsequently agree.

(5) A notice under paragraph (4) may require the employer to notify the Department or such other authority as is specified in the notice of any of the particulars specified in Schedule 5 before each occasion on which he commences work with ionising radiation.

(6) Where an employer has notified work in accordance with paragraph (2) and subsequently makes a material change in that work which would affect the particulars so notified, he shall forthwith notify the Department of that change.

(7) Nothing in paragraph (6) shall be taken as requiring the cessation of work with ionising radiation to be notified in accordance with that paragraph except where—

- (a) the site or any part of the site in which the work was carried on has been or is to be vacated; and
- (b) the work involved a radioactive substance other than a radioactive substance solely in the form of a sealed source.

(8) In any proceedings against a person for an offence consisting of a contravention of paragraph (2), it shall be a defence for that person to prove that—

- (a) he neither knew nor had reasonable cause to believe that he had undertaken or might be required to undertake work with ionising radiation; and
- (b) in a case where he discovered that he had undertaken or was undertaking work with ionising radiation, he had forthwith notified the Department of the details specified in Schedule 4.

PART II

DOSE LIMITATION

Restriction of exposure

6.—(1) Every employer shall, in relation to any work with ionising radiation that he undertakes, take all necessary steps to restrict so far as reasonably practicable the extent to which his employees and other persons are exposed to ionising radiation.

(2) Without prejudice to the generality of paragraph (1), every employer shall, so far as reasonably practicable, achieve the restriction of exposure to ionising radiation required under that paragraph by means of engineering controls and design features which include shielding, ventilation, containment of radioactive substances and minimisation of contamination and in addition by the provision and use of safety features and warning devices.

(3) In addition to taking the steps required under paragraph (2), every employer shall provide such systems of work as will, so far as reasonably practicable, restrict the exposure to ionising radiation of employees and other persons and, in the case of employees or other persons who enter or remain in controlled or supervised areas,

provide those persons with adequate and suitable personal protective equipment (including respiratory protective equipment) unless—

- (a) it is not reasonably practicable to further restrict exposure to ionising radiation by such means; or
 - (b) the use of personal protective equipment of a particular kind is not appropriate having regard to the nature of the work or the circumstances of the particular case.
- (4) An employee who is engaged in work with ionising radiation—
- (a) shall not knowingly expose himself or any other person to ionising radiation to an extent greater than is reasonably necessary for the purposes of his work, and shall exercise reasonable care while carrying out such work;
 - (b) shall make full and proper use of any personal protective equipment provided in pursuance of paragraph (3); and
 - (c) shall forthwith report to his employer any defect he discovers in any personal protective equipment.
- (5) The employer shall ensure that—
- (a) no radioactive substance in the form of a sealed source is held in the hand or manipulated directly by hand, unless the instantaneous dose rate to the skin of the hand does not exceed $75 \mu\text{Sv h}^{-1}$, and
 - (b) so far as is reasonably practicable, no unsealed radioactive substance nor any article containing a radioactive substance is held in the hand or directly manipulated by hand.
- (6) No employee shall eat, drink, smoke, take snuff or apply cosmetics in any area which the employer has designated as a controlled area by virtue of the provisions of Part II of Schedule 6 (which relates to internal radiation) except that an employee may drink from a drinking fountain so constructed that there is no contamination of the water.

Dose limits

7. Every employer shall ensure that his employees and other persons are not exposed to ionising radiation to an extent that any dose limit specified in Schedule 1 for each such employee or other person, as the case may be, is exceeded.

PART III

REGULATION OF WORK WITH IONISING RADIATION

Designation of controlled and supervised areas

8.—(1) For the purpose of designating as a controlled area any area in which doses of ionising radiation are likely to exceed three-tenths of any dose limit for employees aged 18 years or over, every employer shall designate as a controlled area any area under his control where an employee can be exposed to ionising radiation and which is required to be so designated by virtue of the provisions of Schedule 6.

(2) Every employer shall designate as a supervised area any area under his control, not being an area designated as a controlled area, in which any person is likely to be exposed to ionising radiation to an extent which exceeds one-third of the extent to which he would be exposed in any area which is required to be designated as a controlled area in accordance with paragraph (1).

(3) Notwithstanding the provisions of paragraphs (1) and (2), an employer may designate any area under his control, other than an area specified in paragraph (1), as a controlled area or a supervised area and any area so designated shall be treated for all purposes as an area designated under paragraph (1) or (2) as the case may be.

(4) An employer shall not intentionally create in any area conditions which would require that area to be designated as a controlled area unless that area is for the time being under his control.

(5) Every employer shall ensure that each controlled area and supervised area that he has designated is adequately described in local rules and that, in the case of any controlled area—

- (a) the area is physically demarcated or, where this is not reasonably practicable, delineated by some other suitable means; and
- (b) access to the area is restricted by suitable means.

(6) The employer shall not permit any employee or other person to enter or remain in a controlled area unless that employee or other person either—

- (a) is a classified person; or
- (b) enters or remains in the area under a written system of work such that—
 - (i) in the case of an employee aged 18 years or over, he does not receive in any calendar year a dose of ionising radiation exceeding three-tenths of any relevant dose limit, or
 - (ii) in the case of any other person, he does not receive in any calendar year a dose of ionising radiation exceeding any relevant dose limit.

(7) An employer shall not permit an employee or other person to enter or remain in a controlled area in accordance with a written system of work under paragraph (6)(b), unless that employer can demonstrate, by personal dose assessment or other suitable measurements, that the doses are restricted in accordance with that paragraph.

Designation of classified persons

9.—(1) Subject to paragraph (3), the employer shall designate as classified persons those of his employees who are likely to receive a dose of ionising radiation which exceeds three-tenths of any relevant dose limit and shall forthwith inform those employees that they have been so designated.

(2) The employer shall not cease to treat an employee as a classified person except at the end of a calendar year, unless he is required to do so under regulation 16(6) by an employment medical adviser or appointed doctor, and in any case where he ceases to treat an employee as a classified person the employer shall forthwith inform the employee that he is no longer a classified person.

(3) An employer shall not designate an employee as a classified person unless—

- (a) that employee is aged 18 years or over; and
- (b) subject to regulation 38(3) (which relates to transitional provisions), an employment medical adviser or appointed doctor has certified in the health record that, in his professional opinion, that employee is fit to be designated as a classified person.

Appointment of radiation protection advisers and qualified persons

10.—(1) Subject to regulation 38(4) (which relates to transitional provisions) and paragraphs (3) and (6), in any case where—

- (a) any employee is exposed to an instantaneous dose rate which exceeds $7.5 \mu\text{Sv h}^{-1}$; or
- (b) the employer has designated a controlled area which persons enter,

the employer carrying out work with ionising radiation shall appoint one or more radiation protection advisers for the purpose of advising him as to the observance of these Regulations and as to other health and safety matters in connection with ionising radiation.

(2) An employer who appoints a radiation protection adviser for the purposes of regulation 32(2) or in any other case where he considers it requisite in relation to the work with ionising radiation that he undertakes shall be deemed to have appointed that radiation protection adviser under paragraph (1).

- (3) No employer shall appoint a person as a radiation protection adviser unless—
- (a) that person is suitably qualified and experienced;
 - (b) he has notified the Department in writing of the intended appointment at least twenty-eight days in advance or, where this is not practicable, such shorter time in advance as the Department may agree and that notification shall include the name of the person that he intends to appoint and particulars of his qualifications and experience and the scope of the advice he is required to give; and
 - (c) he has received from the Department an acknowledgement in writing of the notification.
- (4) The employer shall forthwith notify the Department of any material change in relation to a radiation protection adviser which would affect the particulars notified in accordance with paragraph (3)(b).
- (5) The employer shall provide any radiation protection adviser whom he appoints with adequate information and facilities for the performance of his functions and shall whenever appropriate consult that adviser.
- (6) Nothing in paragraph (1) shall require an employer to appoint a radiation protection adviser where the only work with ionising radiation undertaken by the employer is work specified in Schedule 3.
- (7) Paragraphs (3), (4) and (5) shall apply to the appointment of a qualified person for the purposes of regulation 24(3) as they apply to the appointment of a radiation protection adviser, except that the notification to the Department under paragraph 3(b) shall not be required to include particulars of the advice he is required to give.

Local rules, supervision and radiation protection supervisors

11.—(1) Every employer who undertakes work with ionising radiation shall make and set down in writing local rules for the purpose of enabling the work with ionising radiation to be carried on in compliance with the requirements of these Regulations and shall ensure that such of those rules as are relevant are brought to the attention of those employees and other persons who may be affected by them.

(2) The employer shall ensure that the work with ionising radiation is supervised to the extent necessary to enable that work to be carried on in accordance with the requirements of these Regulations and shall take all reasonable steps to ensure that any local rules that are relevant to that work are observed.

(3) Subject to regulation 38(5) (which relates to transitional provisions), where the work with ionising radiation carried on by the employer is any such work other than that specified in Schedule 3, the employer shall appoint one or more of his employees as radiation protection supervisors for the purpose of securing compliance with paragraph (2) and any such appointments shall be in writing and the names of persons so appointed shall be included in the local rules.

Information, instruction and training

12. Every employer shall ensure that—

- (a) subject to regulation 38(6) (which relates to transitional provisions), those of his employees who are engaged in work with ionising radiation receive such information, instruction and training as will enable them to conduct that work in accordance with the requirements of these Regulations;
- (b) adequate information is given to other persons who are directly concerned with the work with ionising radiation carried on by the employer to ensure their health and safety so far as is reasonably practicable;
- (c) classified persons and trainees are informed of the health hazard, if any, associated with their work, the precautions to be taken and the importance of complying with the medical and technical requirements and are given appropriate training in the field of radiation protection; and

- (d) those of his employees who are engaged in work with ionising radiation and who are women are informed of the possible hazard arising from ionising radiation to the foetus in early pregnancy and of the importance of informing the employer as soon as they discover that they have become pregnant.

PART IV

DOSIMETRY AND MEDICAL SURVEILLANCE

Dose assessment

- 13.—(1) This regulation shall apply in relation to—
- (a) any employee who is designated as a classified person; and
 - (b) any employee who is made subject to this regulation by an approved arrangement made under regulation 17(1).
- (2) Subject to regulation 38(7) (which relates to transitional provisions), every employer shall ensure that assessments are made of all significant doses of ionising radiation received by each of his employees to whom this regulation relates and for this purpose shall make suitable arrangements with an approved dosimetry service for the making of systematic measurements and assessments of such doses—
- (a) by the use of suitable personal dosimeters which shall be worn for appropriate periods; or
 - (b) where the use of such dosimeters is inappropriate, by means of other suitable measurements.
- (3) For the purposes of paragraph (2), the arrangements that the employer makes with the approved dosimetry service shall include requirements for that service—
- (a) to make and maintain dose records relating to each employee to whom this regulation relates and to keep those dose records or a copy thereof for at least fifty years from when they were made;
 - (b) to furnish the employer at appropriate intervals with suitable summaries of the dose records maintained in accordance with sub-paragraph (a);
 - (c) when required by the employer, to furnish him with such copies of the dose record relating to any of his employees as the employer may require;
 - (d) when required by the employer, to make a record of the information concerning the dose assessment relating to a person who ceases to be an employee of the employer, and to send that record to the Department and a copy thereof to the employer forthwith, and a record so made is referred to in this regulation as a “termination record”;
 - (e) within three months, or such longer period as the Department may agree, of the end of each calendar year to send to the Department summaries of all current dose records relating to that year;
 - (f) to send to the Department forthwith appropriate details of any employee who has received in any calendar quarter a dose of ionising radiation greater than three-fifths of the dose limit for employees aged 18 years or over specified in Part I of Schedule 1 (whole body dose limit), and in this sub-paragraph “calendar quarter” means the three months beginning with 1st January, 1st April, 1st July or 1st October;
 - (g) when required by the Department, to furnish it with copies of any dose record; and
 - (h) to make any entry in a dose record in accordance with paragraphs (7) and (9).
- (4) The employer shall make arrangements with the approved dosimetry service for that service to keep suitable summaries of any appropriate dose records which he

holds relating to those of his employees whom he has designated, or intends to designate, as classified persons under these Regulations, whether or not those records were made in pursuance of a requirement imposed by or under any enactment, and the employer shall lodge those summaries with the service before 1st July 1986 or forthwith after designation whichever is the later.

(5) The employer shall—

- (a) at the request of an employee and on reasonable notice being given, obtain from the approved dosimetry service and give to the employee a copy of the dose record which relates to him; and
- (b) when an employee ceases to be employed by the employer, take all reasonable steps to send a copy of his termination record to that employee.

(6) The employer shall keep a copy of the summary of the dose record received from the approved dosimetry service for at least two years from the end of the calendar year to which the summary relates.

(7) In any case where a dosimeter is lost or destroyed or it is not possible to assess the dose received over any period by an employee to whom paragraph (1) relates, the employer shall make an investigation of the circumstances of the case with a view to estimating the dose received by the employee during that period and either—

- (a) in a case where there is adequate information to estimate the dose received by the employee, shall arrange for the approved dosimetry service to enter that estimated dose in the dose record of the employee; or
- (b) in a case where there is inadequate information to estimate the dose received by the employee, shall arrange for the approved dosimetry service to enter a notional dose in the dose record of the employee which shall be the proportion of the total dose limit for the relevant period,

and in either case the employer shall arrange for the approved dosimetry service to identify the entry in the dose record as an estimated dose or a notional dose as the case may be.

(8) Where an employer has reason to believe that the dose received by one of his employees is much greater or much less than that shown in the dose record, he shall make an investigation of the circumstances of the exposure of that employee to ionising radiation and, if that investigation confirms his belief, he shall apply to the Department for a special entry to be made in the dose record of that employee.

(9) Where the Department has reasonable cause to believe that the dose received by an employee was much greater or much less than that shown in his dose record, it may approve a special entry in the dose record and in such a case the employer shall arrange for the approved dosimetry service to enter the special entry in that dose record and shall give a copy of the amended dose record to the employee.

(10) Any employee to whom paragraph (1) or regulation 27(4)(b) relates shall comply with any reasonable requirement imposed on him by his employer for the purposes of making the measurements and assessments required under paragraph (2) and regulation 14(1).

Accident dosimetry

14.—(1) Where an accident, occurrence or incident occurs which is likely to result in a person being exposed to ionising radiation to an extent greater than three-tenths of any relevant dose limit, the employer shall—

- (a) in the case of an employee to whom regulation 13 relates, arrange for a dose assessment to be made by the approved dosimetry service forthwith;
- (b) in the case of an employee to whom a dosimeter or other device has been issued in accordance with regulation 27(4)(b), arrange for that dosimeter or

device to be examined and for the dose received to be assessed by the approved dosimetry service;

- (c) in any other case, arrange for the dose to be assessed by an appropriate means.
- (2) In such a case, the employer shall—
 - (a) take all reasonably practicable steps to inform each person for whom a dose assessment has been made of the result of that assessment; and
 - (b) keep a record of the assessment or a copy thereof for at least fifty years from the date of the relevant accident, occurrence or incident.

Approved dosimetry services

15. The Department may by a certificate in writing, which may be made subject to conditions and may be revoked in writing at any time, approve a suitable dosimetry service for such of the purposes of regulations 13, 14 and 27 as are specified in the certificate.

Medical surveillance

16.—(1) This regulation shall apply in relation to—

- (a) classified persons and persons whom the employer intends to classify;
- (b) employees who have received an overexposure and are not classified persons;
- (c) employees who are engaged in work with ionising radiation subject to conditions imposed by an employment medical adviser or appointed doctor under paragraph (6); and
- (d) employees who are subject to this regulation by an approved arrangement made under regulation 17(1).

(2) The employer shall ensure that a health record, containing particulars approved by the Department, in respect of each of his employees to whom this regulation relates is made and maintained and that that record or a copy thereof is kept for at least fifty years from the date of the last entry therein.

(3) The employer shall ensure that each of his employees to whom this regulation relates is under adequate medical surveillance by an employment medical adviser or appointed doctor.

(4) Subject to regulation 38(8) (which relates to transitional provisions) and to paragraph (5), the employer shall ensure that there is a valid entry in the health record of each of his employees to whom this regulation relates (other than employees who have received an overexposure and who are not classified persons) made by an employment medical adviser or appointed doctor and an entry in the health record shall be valid—

- (a) for twelve months from the date it was made; or
- (b) for such shorter period as is specified in the entry by the employment medical adviser or appointed doctor; or
- (c) until cancelled by an employment medical adviser or appointed doctor by a further entry in the record.

(5) Where, within the period of validity of an entry in the health record made under paragraph (4)(a) but not earlier than one month before the end of that period, a further entry is made as respects the same employee, the further entry shall be treated for the purpose of paragraph (4)(a) as if made at the end of the said period.

(6) Where the employment medical adviser or appointed doctor has certified in the health record of an employee to whom this regulation relates that in his

professional opinion that employee should not be engaged in work with ionising radiation or that he should only be so engaged under conditions he has specified in the health record, the employer shall not permit that employee to be engaged in work with ionising radiation except in accordance with the conditions, if any, so specified.

(7) An employee to whom this regulation relates shall, when required by his employer and at the cost of the employer, present himself during his working hours for such medical examination and tests as may be required for the purposes of paragraph (3) and shall furnish the employment medical adviser or appointed doctor with such information concerning his health as the employment medical adviser or appointed doctor may reasonably require.

(8) Where, for the purpose of carrying out his functions under these Regulations an employment medical adviser or appointed doctor requires to inspect any workplace, the employer shall permit him to do so.

(9) The employer shall make available to the employment medical adviser or appointed doctor such records kept for the purposes of these Regulations as he may reasonably require.

(10) Where an employee is aggrieved by a decision recorded in the health record by an employment medical adviser or appointed doctor he may, by an application in writing to the Department made within three months of the date on which he was notified of the decision, apply for that decision to be reviewed in accordance with a procedure approved for the purposes of this paragraph by the Department and the result of that review shall be notified to the employee and entered in his health record in accordance with the approved procedure.

Approved arrangements for the protection of certain employees

17.—(1) Where the Department has reasonable cause to believe that it is necessary for the protection of the health or safety of any employee, it may serve on his employer a notice in writing requiring that employer to make such arrangements as it may approve as respects any or all of the following—

- (a) prohibiting or regulating the entry by, or presence of, the employee in any or all controlled areas or supervised areas;
- (b) for the employee to be made subject to any or all of the requirements of regulation 13 (which relates to dose assessment); and
- (c) for the employee to be made subject to any or all of the requirements of regulation 16 (which relates to medical surveillance),

and in such a case the employer shall make such arrangements as are required in the notice.

(2) Where the employer has made approved arrangements in respect of an employee in pursuance of a notice under paragraph (1), he shall ensure that the employee is informed of the approved arrangements made in respect of him and that those arrangements are complied with.

(3) Where an employer has made approved arrangements with respect to an employee, that employee shall comply with those arrangements.

(4) A notice served under paragraph (1) may take immediate effect, or may take effect on such a date as is specified in it, may be with or without limit of time and may be revoked at any time.

(5) The Department shall not issue a notice under paragraph (1)(a) in a case where if the notice had been issued it would have related to a decision of an employment medical adviser or appointed doctor which is being or has been reviewed under regulation 16(10).

PART V

ARRANGEMENTS FOR THE CONTROL OF RADIOACTIVE SUBSTANCES

Sealed sources and articles containing or embodying radioactive substances

18.—(1) Where a radioactive substance is used as a source of ionising radiation in work with ionising radiation, the employer shall ensure that, whenever reasonably practicable, the substance is in the form of a sealed source.

(2) The employer shall ensure that the design, construction and maintenance of any article containing or embodying a radioactive substance, including its bonding, immediate container or other mechanical protection, is such as to prevent the leakage of any radioactive substance—

- (a) in the case of a sealed source, so far as is practicable; or
- (b) in the case of any other article, so far as is reasonably practicable.

(3) Where appropriate, the employer shall ensure that suitable tests are carried out at suitable intervals, which shall in no case exceed twenty-six months, to detect leakage of radioactive substances from any article to which paragraph (2) applies and the employer shall keep a suitable record of those tests for at least three years from the date of the tests to which it refers.

(4) In any proceedings against an employer for an offence under paragraph (2) it shall be a defence for that employer to prove that—

- (a) he had received and reasonably relied on a written undertaking from the supplier of the article concerned that it complied with the requirements of that paragraph; and
- (b) he had complied with the requirements of paragraph (3).

Accounting for radioactive substances

19. For the purpose of controlling radioactive substances which are involved in work with ionising radiation which he undertakes, every employer shall take such steps as are appropriate to account for and keep records of the quantity and location of those substances and shall keep those records or a copy thereof for at least two years from the date on which they were made and, in addition, for at least two years from the date of disposal of that radioactive substance.

Keeping of radioactive substances

20.—(1) Every employer who undertakes work with ionising radiation shall ensure, so far as is reasonably practicable, that any radioactive substance under his control which is not for the time being in use or being moved, transported or disposed of—

- (a) is kept in a suitable receptacle; and
- (b) is kept in a suitable store.

(2) Nothing in paragraph (1) shall apply in relation to a radioactive substance while it is in or on the live body or corpse of a human being.

Transport and moving of radioactive substances

21.—(1) Every employer who causes or permits a radioactive substance to be transported shall ensure that, so far as is reasonably practicable, the substance is kept in a suitable receptacle, suitably labelled, whilst it is being transported.

(2) Every employer who causes or permits a radioactive substance to be transported shall ensure, so far as is reasonably practicable, that such information in writing accompanies the radioactive substance as will enable the person receiving it—

- (a) to know the nature and quantity of the radioactive substance; and
- (b) to comply with the requirements of paragraph (1) and regulations 6, 7, 8 and 18(2) in so far as such compliance depends on that information.

(3) Every employer who causes or permits a radioactive substance to be moved (otherwise than by transporting it) shall ensure that, so far as is reasonably practicable, the substance is kept in a suitable receptacle while it is being moved.

(4) In any proceedings against an employer for an offence under paragraph (1) or (2), it shall be a defence for that employer to prove that it was reasonable for him to rely upon information given to him by some other person under paragraph (2).

(5) The foregoing paragraphs shall not apply—

- (a) in relation to the transport of a radioactive substance where and to the extent that the Radioactive Substances (Carriage by Road) Regulations (Northern Ireland) 1983(a) apply in relation to that transport; or
- (b) in relation to a radioactive substance while it is in or on the live body or corpse of a human being.

Washing and changing facilities

22. Subject to regulation 38(9) (which relates to transitional provisions), where an employer is required by virtue of the provisions of Part II of Schedule 6 (which relates to internal radiation) to designate an area as a controlled area or a supervised area, he shall ensure that adequate washing and changing facilities are provided for persons who enter or leave that area and that those facilities are properly maintained.

Personal protective equipment

23.—(1) Every employer shall ensure that, where personal protective equipment provided in pursuance of regulation 6(3) includes respiratory protective equipment, that respiratory protective equipment is of a type, or conforms to a standard, approved in either case by the Department, except that this paragraph shall not apply to respiratory protective equipment supplied to the employer before 1st January 1988.

(2) Every employer shall ensure that all personal protective equipment (including respiratory protective equipment) is thoroughly examined at suitable intervals and is properly maintained and that, in the case of respiratory protective equipment, a suitable record of that examination is made and kept for at least two years from the date on which the examination was made and that the record includes a statement of the condition of the equipment at the time of the examination.

PART VI

MONITORING OF IONISING RADIATION

Monitoring of levels for radiation and contamination

24.—(1) Every employer who undertakes work with ionising radiation shall take such steps as are requisite, otherwise than by use of assessed doses of individuals, to ensure that levels of ionising radiation are adequately monitored for each controlled area or supervised area that he has designated, in order to ascertain the efficacy of the methods used in those areas for the restriction of exposure of persons to ionising radiation.

(2) The employer shall provide equipment which is suitable for carrying out the monitoring required by paragraph (1) and it shall—

- (a) be properly maintained;

- (b) subject to regulation 38(10) (which relates to transitional provisions), be thoroughly examined and tested at least once in every fourteen months; and
- (c) except in the case of equipment which was taken into use for the first time before 1st January 1988, have had its performance established by tests before it is taken into use for the first time.

(3) The examination and tests required by sub-paragraphs (b) and (c) of paragraph (2) shall be carried out by, or under the immediate supervision of, a qualified person appointed for the purposes of those sub-paragraphs by either—

- (a) the employer who undertakes the work with ionising radiation in which the instruments are intended to be used; or
- (b) the employer of the qualified person if he is not the employer mentioned in sub-paragraph (a).

(4) The employer shall make suitable records of the results of the monitoring carried out in accordance with paragraph (1) and of the tests which have been carried out in accordance with paragraph (2) and shall keep those records or copies thereof for at least two years from the respective dates on which they were made.

PART VII

ASSESSMENTS AND NOTIFICATIONS

Assessment of hazards

25.—(1) An employer shall not carry on work with ionising radiation unless he has made an assessment which is adequate to identify the nature and magnitude of the radiation hazard to employees or other persons which is likely to arise from that work in the event of any reasonably foreseeable accident, occurrence or incident.

(2) Where the assessment carried out for the purposes of paragraph (1) shows that a radiation hazard to employees or other persons exists, the employer shall take all reasonably practicable steps to—

- (a) prevent any such accident, occurrence or incident;
- (b) limit the consequences of any such accident, occurrence or incident which does occur; and
- (c) provide employees with the information, instruction and training and with the equipment necessary to restrict their exposure to ionising radiation.

Special hazard assessments and reports

26.—(1) Subject to regulation 38(11) (which relates to transitional provisions) and paragraphs (5) and (7), an employer shall not undertake any work with ionising radiation which involves—

- (a) having on any site;
- (b) providing facilities for there to be on any site; or
- (c) transporting,

more than the quantity of any radioactive substance specified in column 6 of Schedule 2 or, in the case of a fissile material, the mass of that material specified in paragraph (6), unless he has made an assessment of the radiation hazard that could arise from that work and has sent a report of the assessment, including the particulars specified in Schedule 7, to the Department at least twenty-eight days before commencing that work or within such shorter time in advance as the Department may agree.

(2) Where an assessment has been made in accordance with paragraph (1) and the employer makes a material change in the work to which that assessment relates which could affect any of the particulars specified in Schedule 7, he shall make a further assessment to take account of that change and send a report of the further assessment

to the Department within twenty-eight days of making that change or such longer time as the Department may agree.

(3) Where an assessment has been made in accordance with paragraph (1) or (2) and the work to which it relates is still continuing, the employer shall within two years of the date of the last report of the assessment (whether made in accordance with paragraph (1) or (2) or sub-paragraph (a)) either—

- (a) make a further assessment; or
- (b) if there is no change of circumstances which would affect the last such report, sign a declaration to that effect,

and shall within twenty-eight days send to the Department a copy of the report of the further assessment or the declaration as the case may be.

(4) Where, for the purpose of assessing the risk to health or safety of persons who could be affected by work with ionising radiation to which paragraph (1) applies, the Department may reasonably require a detailed assessment of any of the matters set out in Schedule 8, it may, by notice in writing served on the employer, require him to carry out such detailed assessment of such of those matters as are specified in the notice and the employer shall send a report of the assessment to the Department within such time as is specified in the notice or within such longer time as the Department may subsequently allow.

(5) For the purpose of paragraph (1) no account shall be taken of—

- (a) any radioactive substance which has an activity concentration of not more than 100 Bqg⁻¹;
- (b) any radioactive substance in the form of a sealed source conforming to the specifications in paragraph 2 or 3 of Schedule 9; or
- (c) any radioactive substance which is in a package which complies in every respect with either the requirements for Type B packages or for Special Arrangements Transport Operations of, in either case, the Regulations for the Safe Transport of Radioactive Materials published by the International Atomic Energy Agency as revised or re-issued from time to time and is certified pursuant to those Regulations as complying with them.

(6) For the purpose of paragraph (1) and regulation 27(5)(a) and (6) the specified mass of a fissile material shall be—

- (a) plutonium as Pu-239 or Pu-241 or as a mixture of plutonium isotopes containing Pu-239 or Pu-241, 150 grams;
- (b) uranium as U-233, 150 grams;
- (c) uranium enriched in U-235 to more than 1% but not more than 5%, 500 grams;
- (d) uranium enriched in U-235 to more than 5%, 250 grams.

(7) This regulation shall not apply to any work with ionising radiation which is undertaken on a site for the time being licensed under the Nuclear Installations Act 1965(a).

Contingency plans

27.—(1) Where the assessment made in accordance with regulation 25(1) shows that as a result of any reasonably foreseeable accident, occurrence or incident—

- (a) employees or other persons are likely to receive a dose of ionising radiation which exceeds any relevant dose limit; or
- (b) any area other than an area already designated as a controlled area would be required to be so designated in accordance with the requirements of regulation 8(1) and Schedule 6 (whether or not it is for the time being under his control),

the employer shall prepare a contingency plan designed to secure so far as is reasonably practicable the restriction of exposure to ionising radiation and the health and safety of persons who may be affected by the accident, occurrence or incident to which the plan relates.

(2) For the purpose of preparing the contingency plan the employer shall consult such persons, bodies and authorities as are appropriate and in a case where the emergency services form part of the plan shall give such information to those services as will enable them to perform their functions in accordance with the plan.

(3) The contingency plan shall include—

- (a) arrangements for all persons (whether employees or not) who are likely to be affected as a result of an accident, occurrence or incident;
- (b) the name of the person responsible for safety on the site or, in the case of a transport operation, of that operation;
- (c) the names of persons authorised to implement the plan in the event of an accident, occurrence or incident.

(4) The employer shall ensure that—

- (a) a copy of the contingency plan made in pursuance of paragraph (1) is incorporated in local rules;
- (b) any employee under his control who may be involved with or may be affected by arrangements in the plan has been given suitable and sufficient instruction and where appropriate issued with suitable dosimeters or other devices obtained in either case from the approved dosimetry service with which the employer has entered into an arrangement under regulation 13(2); and
- (c) where appropriate, rehearsals of the arrangements in the plan are carried out at suitable intervals.

(5) Subject to regulation 38(11) (which relates to transitional provisions), the employer shall provide the Department with a copy of the contingency plan either—

- (a) before a quantity of a radioactive substance which exceeds the quantity specified in column 6 of Schedule 2 or, in the case of fissile material, the mass of that material specified in regulation 26(6), is brought onto any site or is transported; or
- (b) when the Department so requires.

(6) Where the quantity of a radioactive substance exceeds the quantity specified in column 6 of Schedule 2 or, in the case of a fissile material, the mass of that material specified in regulation 26(6) and the employer has prepared the contingency plan specified in paragraph (1) the Department may, by a certificate in writing which may be revoked at any time, exempt (either unconditionally or subject to conditions and with or without limit of time) the employer from the requirements of regulation 7 to the extent necessary to give effect to the contingency plan and, in determining whether to grant an exemption in any particular case, the Department shall have regard to the circumstances of that case and in particular to—

- (a) the nature and extent of exposure of persons to ionising radiation which might result from any accident, occurrence or incident to which the contingency plan relates;
- (b) the size and distribution of the population which might be affected by any such accident, occurrence or incident; and
- (c) the hazard to the health or safety of persons or other detriment which might arise from the counter measures proposed.

Investigation of exposure

28.—(1) The employer shall ensure that an investigation is carried out forthwith when any of his employees is exposed to ionising radiation to an extent that

three-tenths of the dose limit for employees aged 18 years or over specified in Part I of Schedule 1 (whole body dose limit) is exceeded for the first time in any calendar year, to determine whether the requirements of regulation 6(1) are being met.

(2) The employer shall keep a report of any investigation made under paragraph (1) for at least two years from the date on which it was made.

Investigation and notification of overexposure

29.—(1) Where an employer who is undertaking work with ionising radiation suspects or has been informed that any employee or other person is likely to have received an overexposure as a result of that work, he shall make an immediate investigation to determine whether there are circumstances which show beyond reasonable doubt that no overexposure could have occurred and, unless this is shown, the employer shall—

- (a) forthwith notify the suspected overexposure to—
 - (i) the Department,
 - (ii) in the case of an employee of some other employer, that other employer, and
 - (iii) in the case of his employee, an employment medical adviser and, where appropriate, the appointed doctor; and
- (b) make or arrange for a detailed investigation of the circumstances of the exposure and an assessment of the dose received and shall forthwith notify the results of that investigation and assessment to the persons and authorities mentioned in sub-paragraph (a) and shall—
 - (i) in the case of his employee, forthwith notify that employee of the results of the investigation and assessment, or
 - (ii) in the case of a person who is not his employee, where the investigation has shown that that person has received an overexposure, take all reasonable steps to notify that person of his overexposure.

(2) An employer who makes any investigation in accordance with paragraph (1) shall make a report of that investigation and shall keep that report or a copy thereof for at least fifty years from the date on which it was made.

(3) Where the person who received the overexposure is an employee who has a dose record, his employer shall arrange for the assessment of the dose received to be entered into that dose record.

(4) Where an employee has reasonable cause to believe that he or some other person has received an overexposure, he shall forthwith inform the employer of his belief.

Dose limitation for overexposed employees

30.—(1) Without prejudice to the other requirements of these Regulations and in particular regulation 16(6) and Parts IV and V of Schedule 1, where an employee has been subjected to an overexposure, paragraph (2) shall apply in relation to the employment of that employee on work with ionising radiation during the remainder of the calendar year, commencing at the end of the personal dose assessment period in which he was subjected to the overexposure.

(2) The employer shall ensure that an employee to whom this regulation relates does not, in the remaining part of the calendar year in which he was subjected to the overexposure, receive a dose of ionising radiation greater than that proportion of any dose limit which is equal to the proportion that the remaining part of the year bears to the whole calendar year.

Notification of certain occurrences

31.—(1) Every employer shall forthwith notify the Department in any case where a quantity of a radioactive substance which was under his control and which exceeds the quantity specified for that substance in column 7 of Schedule 2—

- (a) has been released or is likely to have been released into the atmosphere as a gas, aerosol or dust; or
- (b) has been spilled or otherwise released in such a manner as to give rise to significant contamination,

except where such release was in a manner specified in an authorisation to dispose of radioactive waste under section 6 of the Radioactive Substances Act 1960(a) or where an arrangement referred to in section 14(3)(a) of that Act has been made, in accordance with that arrangement.

(2) Where an employer has reasonable cause to believe that a quantity of a radioactive substance which exceeds the quantity for that substance specified in column 2 of Schedule 2 and which was under his control is lost or has been stolen, the employer shall forthwith notify the Department of that loss or theft, as the case may be.

(3) Where an employer suspects or has been informed that an occurrence mentioned in paragraph (1) or (2) may have occurred, he shall make an immediate investigation and unless that investigation shows that no such occurrence has occurred, he shall forthwith make a notification in accordance with the relevant paragraph.

(4) An employer who makes any investigation in accordance with paragraph (3) shall make a report of that investigation and shall keep that report or a copy thereof for at least fifty years from the date on which it was made.

(5) Where an employee has reasonable cause to believe that an occurrence mentioned in paragraph (1) or (2) has occurred, he shall forthwith notify his employer of his belief.

PART VIII

SAFETY OF ARTICLES AND EQUIPMENT

Duties of manufacturers etc. of articles for use in work with ionising radiation

32.—(1) In the case of articles for use at work, where that work is work with ionising radiation, Article 7 of the Health and Safety at Work (Northern Ireland) Order 1978(b) (which imposes general duties on manufacturers etc. as regards articles and substances for use at work) shall be modified so that any duty imposed on any person by paragraph (1) of that Article shall include a duty to ensure that any such article is so designed and constructed as to restrict so far as is reasonably practicable the extent to which employees and other persons are or are likely to be exposed to ionising radiation.

(2) Where a person erects or installs an article for use at work, being work with ionising radiation, he shall—

- (a) where appropriate, together with a radiation protection adviser appointed under regulation 10(1) by himself or by the employer who works with ionising radiation, undertake a critical examination of the way in which the article was erected or installed for the purpose of ensuring, in particular, that—

(a) 1960 c. 34

(b) S.I. 1978/1039 (N.I. 9)

- (i) the safety features and warning devices operate correctly, and
 - (ii) there is sufficient protection for persons from exposure to ionising radiation; and
- (b) provide the employer with adequate information about proper use, testing and maintenance of the article.

Equipment used for medical exposure

33.—(1) Every employer shall ensure that any equipment or apparatus under his control which is used in connection with a medical exposure is of such design or construction and is so installed and maintained as to be capable of restricting so far as is reasonably practicable the exposure to ionising radiation of any person who is undergoing a medical exposure to the extent that this is compatible with the clinical purpose or research objective in view.

(2) Where an employer who is undertaking work with ionising radiation suspects or has been informed that an incident may have occurred in which a person while undergoing a medical exposure was, as the result of a malfunction of, or defect in, radiation equipment used in that work, exposed to ionising radiation to an extent much greater than that intended, he shall make an immediate investigation of the suspected incident and, unless that investigation shows beyond reasonable doubt that no such incident has occurred, shall forthwith notify the Department thereof and make or arrange for a detailed investigation of the circumstances of the exposure and an assessment of the dose received.

(3) An employer who makes any investigation in accordance with paragraph (2) shall make a report of that investigation and shall keep that report or a copy thereof for at least fifty years from the date on which it was made.

(4) Where an employee has reasonable cause to believe that an incident mentioned in paragraph (2) has occurred, he shall forthwith notify his employer of his belief.

(5) In this regulation—

“radiation equipment” means equipment which delivers ionising radiation to the person undergoing a medical exposure and equipment which directly controls the extent of the exposure.

Misuse of or interference with sources of ionising radiation

34. No person shall intentionally or recklessly misuse or without reasonable excuse interfere with any radioactive substance or radiation generator.

PART IX

MISCELLANEOUS AND GENERAL

Defence on contravention of certain regulations

35. It shall be a defence in proceedings against any person for an offence consisting of the contravention of regulation 5(4), 17(1) or 26(4) for that person to prove that at the time proceedings were commenced—

- (a) an improvement notice under Article 23 of the Health and Safety at Work (Northern Ireland) Order 1978 relating to the contravention had not been served on him; or
- (b) if such notice had been served on him—
 - (i) the period for compliance had not expired, or
 - (ii) he had appealed against the notice and that appeal had not been dismissed or withdrawn.

Exemption certificates

36.—(1) Subject to paragraph (2), the Department may, by a certificate in writing, exempt—

- (a) any person or class of person;
- (b) any premises or class of premises; or
- (c) any equipment, apparatus or substance or class of equipment, apparatus or substance,

from any requirement or prohibition imposed by these Regulations and any such exemption may be granted subject to conditions and to a limit of time and may be revoked at any time by a certificate in writing.

(2) The Department shall not grant any such exemption unless, having regard to the circumstances of the case and in particular to—

- (a) the conditions, if any, which it proposes to attach to the exemption; and
- (b) any other requirements imposed by or under any enactments which apply to the case,

it is satisfied that the health and safety of persons who are likely to be affected by the exemption will not be prejudiced in consequence of it and compliance with the fundamental radiation protection provisions underlying regulations 6(1) and (2), 7, 8(1) and (2), 9(1), 13(2), 16(3), 24(1), 27(1) and 33(1) will be achieved.

Fees for medical examinations

37.—(1) Fees shall be payable in accordance with paragraph (2) by an employer to the Department in respect of any medical surveillance of an employee made in pursuance of regulation 16(3) by an employment medical adviser.

(2) Where the medical surveillance includes an examination of, or interview with, the employee, the fees shall be a basic fee for each examination or interview or combination thereof of £33 together with an additional fee of £22.50 in respect of all X-rays and £15 in respect of all laboratory tests carried out in connection with any one such examination or interview or combination thereof, but where the surveillance is confined to an examination of, and making of entries in, records, the fee shall be £10.

Transitional provisions

38.—(1) Where on 1st January 1986 a person holds a current certificate of registration under section 1 of the Radioactive Substances Act 1960 in relation to work with ionising radiation, that person shall be deemed to have notified that work in accordance with regulation 5(2).

(2) Where on or before 26th February 1986 an employer was undertaking or commences for the first time work which is required to be notified under regulation 5(2), it shall be sufficient compliance with that regulation if the employer notifies the Department and furnishes the required particulars before 29th January 1986.

(3) Where, in accordance with regulation 9, immediately before 1st January 1986 an employer would have been required to designate an employee as a classified person had these Regulations then applied, the employer may designate that employee as a classified person until 1st January 1987 unless, before that later date, an employment medical adviser or appointed doctor has certified in the health record of the employee that, in his professional opinion, that employee is not fit to be so designated.

(4) Until 1st January 1986 it shall be a sufficient compliance with regulation 10(1) if the employer appoints the radiation protection adviser required under that paragraph by that date.

(5) Until 1st July 1986 it shall be a sufficient compliance with regulation 11(3) if the employer appoints the radiation protection supervisor required under that paragraph by that date.

(6) Until 1st July 1986 it shall be a sufficient compliance with regulation 12(a) if the employer ensures that those of his employees who are engaged in work with ionising radiation receive such information, instruction and training as will enable them to know the hazards involved in their work and the precautions to be observed.

(7) Where immediately before 1st January 1986 a laboratory had been approved under regulation 18(2) of the Ionising Radiations (Sealed Sources) Regulations (Northern Ireland), 1969(a) that laboratory shall be treated in these Regulations as an approved dosimetry service for the purposes for which it had been so approved until 1st January 1987.

(8) Where—

(a) as respects an employee, his employer did not have and was not required to have a health record or register immediately before 1st January 1986; regulation 16(4) shall not have effect until 1st July 1986;

(b) immediately before 1st January 1986 an employee was a classified worker for the purposes of the Ionising Radiations (Sealed Sources) Regulations (Northern Ireland) 1969 or any nuclear site licence granted under the Nuclear Installations Act 1965(b), regulation 16(4) shall not have effect as respects that employee until the date on which he would have been required to be medically examined under those Regulations had they then been in operation or, in the case of a nuclear site licence, under that licence, or 1st March 1987, whichever is the earlier.

(9) Regulation 22 shall not apply until 1st January 1987 where in order to comply with that regulation it would be necessary to erect a new building or to make substantial alterations to an existing building.

(10) It shall be a sufficient compliance with sub-paragraph (b) of regulation 24(2) if the first examination and test required by that sub-paragraph is carried out before whichever is the later of—

(a) 1st April 1986; or

(b) within 14 months of any thorough examination and test carried out before 1st January 1986 which would have complied with the requirements of that sub-paragraph if that sub-paragraph had then been in operation.

(11) Where—

(a) on or before 1st January 1986 an employer was undertaking work to which regulation 26(1) applies; or

(b) before 1st June 1986 he commences such work,

it shall be a sufficient compliance with the requirements of regulation 26(1) or 27(5) if he sends a copy of the report of the assessment or the contingency plan, as the case may be, to the Department before 1st May 1986 or within such longer time as the Department may allow.

Modifications relating to the Ministry of Defence etc.

39.—(1) In this regulation—

“headquarters or organisation” means a headquarters or organisation designated for the purposes of the International Headquarters and Defence Organisation Act 1964(c);

(a) S.R. 1969 No. 318

(b) 1965 c. 57

(c) 1964 c. 5

“relevant forces” means—

- (a) Her Majesty’s Forces.
- (b) visiting forces; or
- (c) any member of a visiting force working in or attached to any headquarters or organisation; and

“visiting forces” are those within the meaning of any provision of Part 1 of the Visiting Forces Act 1952(a).

(2) The Secretary of State for Defence may, in the interests of national security, by a certificate in writing exempt—

- (a) relevant forces; or
- (b) any person engaged in work with ionising radiation for, or on behalf of, the Secretary of State for Defence,

from all or any of the requirements or prohibitions imposed by these Regulations and any such exemption may be granted subject to conditions and to a limit of time and may be revoked at any time by a certificate in writing, except that, where any such exemption is granted, suitable arrangements shall be made for the assessment and recording of doses of ionising radiation received by persons to whom the exemption relates.

(3) Regulation 5 shall not apply in relation to work carried out by, and on premises under the control of, the Secretary of State for Defence, visiting forces or any headquarters or organisation.

(4) The requirements in regulation 5 to notify the particulars specified in sub-paragraphs (d) and (e) of Schedule 4 or any of the particulars specified in Schedule 5 shall not apply to an employer in relation to work with ionising radiation undertaken for, or on behalf of, the Secretary of State for Defence, visiting forces or any headquarters or organisation.

(5) Regulation 13(3)(f) shall not apply in relation to relevant forces.

(6) In any case in which paragraph (8) or (9) of regulation 13 relates to relevant forces, that paragraph shall apply as if for “the Department” there were substituted “the Secretary of State for Defence”.

(7) Regulation 16(10) shall not apply in relation to relevant forces.

(8) The requirement in paragraphs (1) to (4) of regulation 26 to send a report of the assessment to the Department shall not have effect in any case where the Secretary of State for Defence decides that to do so would be against the interests of national security or where suitable alternative arrangements have been agreed with the Department.

(9) The requirements of paragraphs (2) to (4) of regulation 27 shall not have effect to the extent that in any particular case they would, in the opinion of the Secretary of State for Defence, be against the interests of national security.

(10) The requirement in paragraph (5) of regulation 27 to send a copy of the contingency plan to the Department shall not have effect in any case where either—

- (a) the Secretary of State for Defence decides that to do so would be against the interests of national security and the Department has agreed the criteria to be used in preparing the plan; or
- (b) suitable arrangements have been agreed by the Secretary of State for Defence with the Department to view and assess the plan.

(11) In regulation 29(1) the requirement to notify the Department of a suspected overexposure and the results of the consequent investigation and assessment shall not apply in relation to the exposure of a member of the relevant forces.

(12) The requirements of regulation 31(1) shall not apply to Her Majesty's ships except when undergoing refit.

Revocations, modifications and savings

40.—(1) The Regulations specified in Part I of Schedule 10 in column 1 are hereby revoked to the extent specified in column 3 of that Part.

(2) The Regulations specified in Part II of Schedule 10 in column 1 are hereby modified to the extent specified in column 3 of that Part.

(3) Subject to regulation 13(4) (which relates to the keeping of dose records), every register, certificate or record which was required to be kept in pursuance of any Regulation revoked by paragraph (1) shall, notwithstanding that paragraph, be kept in the same manner and for the same period as if these Regulations had not been made, except that the Department may approve the keeping of records at a place or in a form other than the place where, or the form in which, records were required to be kept under the Regulation so revoked.

Sealed with the Official Seal of the Department of Agriculture on 14th October 1985.

(L.S.)

B. R. Cummings

Assistant Secretary

Sealed with the Official Seal of the Department of Economic Development on 14th October 1985.

(L.S.)

R. Wilson

Assistant Secretary

Sealed with the Official Seal of the Department of the Environment on 14th October 1985.

(L.S.)

J. M. Irvine

Assistant Secretary

Sealed with the Official Seal of the Department of Health and Social Services on 14th October 1985.

(L.S.)

Z. I. Davies

Under Secretary

SCHEDULE 1

Regulations 2(1), 7, 13(3),
28(1) and 30(1)

DOSE LIMITS

PART I

Dose limits for the whole body

1. The dose limit for the whole body resulting from exposure to the whole or part of the body, being the sum of the following dose quantities resulting from exposure to ionising radiation, namely the effective dose equivalent from external radiation and the committed effective dose equivalent from that year's intake of radionuclides, shall in any calendar year be—

- | | |
|--|---------|
| (a) for employees aged 18 years or over, | 50 mSv; |
| (b) for trainees aged under 18 years, | 15 mSv; |
| (c) for any other person, | 5 mSv. |

PART II

Dose limits for individual organs and tissues

2. Without prejudice to Part I of this Schedule, the dose limit for individual organs or tissues, being the sum of the following dose quantities resulting from exposure to ionising radiation, namely the dose equivalent from external radiation, the dose equivalent from contamination and the committed dose equivalent from that year's intake of radionuclides averaged throughout any individual organ or tissue (other than the lens of the eye) or any body extremity or over any area of skin, shall in any calendar year be—

- | | |
|--|----------|
| (a) for employees aged 18 years or over, | 500 mSv; |
| (b) for trainees aged under 18 years, | 150 mSv; |
| (c) for any other person, | 50 mSv. |

3. In assessing the dose quantity to skin whether from contamination or external radiation, the area of skin over which the dose quantity is averaged shall be appropriate to the circumstances but in any event shall not exceed 100 cm².

PART III

Dose limits for the lens of the eye

4. The dose limit for the lens of the eye resulting from exposure to ionising radiation, being the average dose equivalent from external and internal radiation delivered between 2.5 mm and 3.5 mm behind the surface of the eye, shall in any calendar year be—

- | | |
|--|----------|
| (a) for employees aged 18 years or over, | 150 mSv; |
| (b) for trainees aged under 18 years, | 45 mSv; |
| (c) for any other person, | 15 mSv. |

PART IV

Dose limit for the abdomen of a woman of reproductive capacity

5. The dose limit for the abdomen of a woman of reproductive capacity who is at work, being the dose equivalent from external radiation resulting from exposure to ionising radiation averaged throughout the abdomen, shall be 13 mSv in any consecutive three month interval.

PART V

Dose limit for the abdomen of a pregnant woman

6. The dose limit for the abdomen of a pregnant woman who is at work, being the dose equivalent from external radiation resulting from exposure to ionising radiation averaged throughout the abdomen, shall be 10 mSv during the declared term of pregnancy.

QUANTITIES OF RADIONUCLIDES

PART I

Table of radionuclides

1 Radionuclide name, symbol, isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b) (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1) (Bq)
		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
Actinium						
Ac-224	5 10 ⁴	1 10 ²	8 10 ³	1 10 ⁷	2 10 ¹³	2 10 ⁹
Ac-225	5 10 ³	1 10 ⁰	2 10 ²	1 10 ⁵	2 10 ¹¹	2 10 ⁷
Ac-226	5 10 ⁴	2 10 ¹	6 10 ²	1 10 ⁶	2 10 ¹²	2 10 ⁸
Ac-227	5 10 ³	2 10 ⁻³	8 10 ⁻¹	2 10 ²	2 10 ⁸	2 10 ⁵
Ac-228	5 10 ⁴	3 10 ¹	1 10 ⁴	4 10 ⁶	2 10 ¹²	2 10 ⁹
Aluminium						
Al-26	5 10 ⁴	3 10 ²	1 10 ³	2 10 ⁷	2 10 ¹³	2 10 ¹⁰
Americium						
Am-237	5 10 ⁶	1 10 ⁶	4 10 ⁵	3 10 ¹⁰	2 10 ¹⁷	2 10 ¹³
Am-238	5 10 ⁵	1 10 ⁴	1 10 ⁵	1 10 ⁹	2 10 ¹⁵	2 10 ¹¹
Am-239	5 10 ⁶	6 10 ⁴	2 10 ⁴	2 10 ⁹	2 10 ¹⁶	2 10 ¹²
Am-240	5 10 ⁵	1 10 ⁴	1 10 ⁴	8 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Am-241	5 10 ³	2 10 ⁻²	6 10 ⁰	2 10 ³	2 10 ⁹	2 10 ⁶
Am-242m	5 10 ³	2 10 ⁻²	6 10 ⁰	2 10 ³	2 10 ⁹	2 10 ⁶

1 Radionuclide name, symbol, isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b) (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1) (Bq)
		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
<i>Americium (continued)</i>						
Am-242	5 10 ⁴	3 10 ²	2 10 ⁴	3 10 ⁷	2 10 ¹³	2 10 ¹⁰
Am-243	5 10 ³	2 10 ⁻²	6 10 ⁰	2 10 ³	2 10 ⁹	2 10 ⁶
Am-244m	5 10 ⁵	2 10 ⁴	2 10 ³	1 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Am-244	5 10 ⁵	9 10 ²	1 10 ⁴	6 10 ⁷	2 10 ¹⁴	2 10 ¹⁰
Am-245	5 10 ⁶	3 10 ⁵	1 10 ⁵	1 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Am-246m	5 10 ⁶	9 10 ⁵	2 10 ⁵	2 10 ¹⁰	2 10 ¹⁷	2 10 ¹⁰
Am-246	5 10 ⁶	6 10 ⁵	1 10 ⁵	1 10 ¹⁰	2 10 ¹⁶	2 10 ¹³
<i>Antimony</i>						
Sb-115	5 10 ⁶	1 10 ⁶	4 10 ⁵	3 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Sb-116m	5 10 ⁶	3 10 ⁵	1 10 ⁵	8 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Sb-116	5 10 ⁶	1 10 ⁶	4 10 ⁵	3 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Sb-117	5 10 ⁶	9 10 ⁵	4 10 ⁵	3 10 ¹⁰	2 10 ¹⁵	2 10 ¹⁰
Sb-118m	5 10 ⁶	9 10 ⁴	2 10 ⁴	2 10 ⁹	2 10 ¹⁶	2 10 ¹²
Sb-119	5 10 ⁶	1 10 ⁵	6 10 ⁴	5 10 ⁹	2 10 ¹⁶	2 10 ¹²
Sb-120 (15.89 min)	5 10 ⁶	2 10 ⁶	5 10 ⁵	4 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Sb-120 (5.67 dy)	5 10 ⁵	6 10 ³	4 10 ³	3 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Sb-122	5 10 ⁵	6 10 ³	4 10 ³	3 10 ⁸	2 10 ¹⁴	2 10 ¹⁰
Sb-124m	5 10 ⁶	3 10 ⁶	1 10 ⁶	9 10 ¹⁰	2 10 ¹⁷	2 10 ¹⁰
Sb-124	5 10 ⁵	1 10 ³	2 10 ³	2 10 ⁸	2 10 ¹³	2 10 ¹⁰
Sb-125 (Lung class D)	5 10 ⁵	1 10 ⁴	8 10 ³	7 10 ⁸	2 10 ¹³	2 10 ¹⁰
Sb-125 (Lung class W)	5 10 ⁵	2 10 ³	8 10 ³	2 10 ⁸	2 10 ¹³	2 10 ¹⁰
Sb-126m	5 10 ⁶	9 10 ⁵	2 10 ⁵	2 10 ¹⁰	2 10 ¹⁷	2 10 ¹⁰
Sb-126	5 10 ⁵	2 10 ³	2 10 ³	2 10 ⁸	2 10 ¹⁴	2 10 ¹⁰

1 Radionuclide name, symbol, isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b) (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1) (Bq)
		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
<i>Antimony (continued)</i>						
Sb-127	5 10 ⁵	3 10 ³	4 10 ³	3 10 ⁸	2 10 ¹⁴	2 10 ¹⁰
Sb-128	5 10 ⁵	2 10 ⁴	5 10 ³	4 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Sb-129	5 10 ⁵	3 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Sb-130	5 10 ⁶	3 10 ⁵	8 10 ⁴	7 10 ⁹	2 10 ¹⁶	2 10 ¹⁰
Sb-131	5 10 ⁶	1 10 ⁵	7 10 ⁴	6 10 ⁹	2 10 ¹⁶	2 10 ¹⁰
<i>Argon</i>						
Ar-37	5 10 ⁶	2 10 ¹⁰	n.a.	1 10 ¹⁵	2 10 ¹⁸	2 10 ¹⁶
Ar-39	5 10 ⁶	2 10 ⁶	n.a.	2 10 ¹¹	2 10 ¹⁷	2 10 ¹⁴
Ar-41	5 10 ⁵	6 10 ⁵	n.a.	5 10 ¹⁰	2 10 ¹⁶	2 10 ¹²
<i>Arsenic</i>						
As-69	5 10 ⁶	6 10 ⁵	1 10 ⁵	1 10 ¹⁰	2 10 ¹⁶	2 10 ¹³
As-70	5 10 ⁶	2 10 ⁵	6 10 ⁴	5 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
As-71	5 10 ⁵	2 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
As-72	5 10 ⁵	6 10 ³	4 10 ³	3 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
As-73	5 10 ⁵	9 10 ³	4 10 ³	6 10 ⁸	2 10 ¹⁵	2 10 ¹¹
As-74	5 10 ⁵	3 10 ³	7 10 ³	3 10 ⁸	2 10 ¹⁴	2 10 ¹⁰
As-76	5 10 ⁵	6 10 ³	5 10 ³	4 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
As-77	5 10 ⁵	2 10 ⁴	2 10 ⁴	2 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
As-78	5 10 ⁶	9 10 ⁴	4 10 ⁴	3 10 ⁹	2 10 ¹⁵	2 10 ¹⁰

1 Radionuclide name, symbol, isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b) (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1) (Bq)
		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
Astatine						
At-207	5 10 ⁵	9 10 ³	2 10 ⁴	8 10 ⁸	2 10 ¹⁵	2 10 ¹¹
At-211	5 10 ⁴	2 10 ³	6 10 ²	2 10 ⁷	2 10 ¹³	2 10 ¹⁰
Barium						
Ba-126	5 10 ⁶	6 10 ⁴	2 10 ⁴	2 10 ⁹	2 10 ¹⁶	2 10 ¹²
Ba-128	5 10 ⁵	9 10 ³	2 10 ³	2 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Ba-131m	5 10 ⁶	6 10 ⁶	1 10 ⁶	1 10 ¹¹	2 10 ¹⁸	2 10 ¹⁴
Ba-131	5 10 ⁵	3 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁶	2 10 ¹²
Ba-133m	5 10 ⁵	3 10 ⁴	1 10 ⁴	9 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Ba-133	5 10 ⁵	3 10 ³	7 10 ³	3 10 ⁸	2 10 ¹⁴	2 10 ¹¹
Ba-135m	5 10 ⁵	6 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁶	2 10 ¹²
Ba-139	5 10 ⁶	2 10 ³	6 10 ⁴	5 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Ba-140	5 10 ⁵	6 10 ³	2 10 ³	2 10 ⁸	2 10 ¹²	2 10 ¹⁰
Ba-141	5 10 ⁶	3 10 ³	1 10 ³	9 10 ⁹	2 10 ¹⁶	2 10 ¹⁰
Ba-142	5 10 ⁶	6 10 ³	2 10 ³	2 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Berkelium						
Bk-245	5 10 ⁵	6 10 ³	1 10 ⁴	5 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Bk-246	5 10 ⁵	2 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹¹
Bk-247	5 10 ³	2 10 ⁻²	5 10 ⁰	2 10 ³	2 10 ⁹	2 10 ⁶
Bk-249	5 10 ⁴	9 10 ⁰	2 10 ³	8 10 ⁵	2 10 ¹²	2 10 ⁸
Bk-250	5 10 ⁵	2 10 ³	5 10 ⁴	2 10 ⁸	2 10 ¹⁴	2 10 ¹⁰

1 Radionuclide name, symbol, isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b) (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1) (Bq)
		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
Beryllium						
Be-7	5 10 ⁶	9 10 ⁴	2 10 ⁵	7 10 ⁹	2 10 ¹⁶	2 10 ¹²
Be-10	5 10 ⁴	6 10 ¹	5 10 ³	5 10 ⁶	2 10 ¹²	2 10 ⁹
Bismuth						
Bi-200	5 10 ⁶	3 10 ⁵	1 10 ⁵	1 10 ¹⁰	2 10 ¹⁷	2 10 ¹³
Bi-201	5 10 ⁶	1 10 ⁵	5 10 ⁴	4 10 ⁹	2 10 ¹⁶	2 10 ¹²
Bi-202	5 10 ⁶	2 10 ⁵	6 10 ⁴	5 10 ⁹	2 10 ¹⁶	2 10 ¹²
Bi-203	5 10 ⁵	3 10 ⁴	1 10 ⁴	9 10 ⁸	2 10 ¹⁶	2 10 ¹⁰
Bi-205	5 10 ⁵	6 10 ³	6 10 ³	5 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Bi-206	5 10 ⁵	3 10 ³	2 10 ³	2 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Bi-207	5 10 ⁵	2 10 ³	5 10 ³	1 10 ⁸	2 10 ¹⁴	2 10 ¹⁰
Bi-210m	5 10 ⁴	3 10 ⁰	2 10 ²	3 10 ⁵	2 10 ¹¹	2 10 ⁸
Bi-210	5 10 ⁴	1 10 ²	4 10 ³	1 10 ⁷	2 10 ¹³	2 10 ⁹
Bi-212	5 10 ⁵	1 10 ³	2 10 ⁴	9 10 ⁷	2 10 ¹⁴	2 10 ¹⁰
Bi-213	5 10 ⁵	2 10 ³	4 10 ⁴	1 10 ⁸	2 10 ¹⁴	2 10 ¹⁰
Bi-214	5 10 ⁵	3 10 ³	7 10 ⁴	3 10 ⁸	2 10 ¹⁴	2 10 ¹⁰
Bromine						
Br-74m	5 10 ⁶	2 10 ⁵	6 10 ⁴	5 10 ⁹	2 10 ¹⁶	2 10 ¹²
Br-74	5 10 ⁶	3 10 ⁵	1 10 ⁵	8 10 ⁹	2 10 ¹⁰	2 10 ¹³
Br-75	5 10 ⁶	2 10 ⁵	1 10 ⁵	1 10 ¹⁰	2 10 ¹⁶	2 10 ¹³
Br-76	5 10 ⁵	2 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹⁰

1 Radionuclide name, symbol, isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b) (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1) (Bq)
		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
Bromine (continued)						
Br-77	5 10 ⁶	9 10 ⁴	7 10 ⁴	6 10 ⁹	2 10 ¹⁶	2 10 ¹²
Br-80m	5 10 ⁶	6 10 ⁴	1 10 ⁵	5 10 ⁹	2 10 ¹⁵	2 10 ¹²
Br-80	5 10 ⁶	9 10 ⁵	2 10 ⁵	2 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Br-82	5 10 ⁵	2 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Br-83	5 10 ⁶	3 10 ⁵	2 10 ⁵	2 10 ¹⁰	2 10 ¹⁵	2 10 ¹⁰
Br-84	5 10 ⁶	3 10 ⁵	8 10 ⁴	7 10 ⁹	2 10 ¹⁶	2 10 ¹⁰
Cadmium						
Cd-104	5 10 ⁶	3 10 ⁵	1 10 ⁵	8 10 ⁹	2 10 ¹⁷	2 10 ¹³
Cd-107	5 10 ⁶	2 10 ⁵	1 10 ⁵	8 10 ⁹	2 10 ¹⁶	2 10 ¹³
Cd-109	5 10 ⁴	2 10 ²	1 10 ³	1 10 ⁷	2 10 ¹³	2 10 ⁹
Cd-113m	5 10 ⁴	1 10 ¹	1 10 ²	9 10 ⁵	2 10 ¹²	2 10 ⁸
Cd-113	5 10 ⁶	9 10 ⁰	1 10 ²	8 10 ⁵	2 10 ¹²	2 10 ⁸
Cd-115m	5 10 ⁴	2 10 ²	1 10 ³	2 10 ⁷	2 10 ¹³	2 10 ¹⁰
Cd-115	5 10 ⁵	6 10 ³	4 10 ³	3 10 ⁸	2 10 ¹⁴	2 10 ¹⁰
Cd-117m	5 10 ⁶	6 10 ⁴	2 10 ⁴	2 10 ⁹	2 10 ¹⁶	2 10 ¹⁰
Cd-117	5 10 ⁵	6 10 ⁴	2 10 ⁴	2 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Caesium						
Cs-125	5 10 ⁶	6 10 ⁵	2 10 ⁵	2 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Cs-127	5 10 ⁶	3 10 ⁵	2 10 ⁵	2 10 ¹⁰	2 10 ¹⁵	2 10 ¹⁰
Cs-129	5 10 ⁶	2 10 ⁵	1 10 ⁵	9 10 ⁹	2 10 ¹⁶	2 10 ¹²
Cs-130	5 10 ⁶	9 10 ⁵	2 10 ⁵	2 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰

1 Radionuclide name, symbol, isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b) (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1) (Bq)
		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
<i>Caesium (continued)</i>						
Cs-131	5 10 ⁶	2 10 ⁵	1 10 ⁵	8 10 ⁹	2 10 ¹⁶	2 10 ¹²
Cs-132	5 10 ⁵	2 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹¹
Cs-134m	5 10 ⁶	6 10 ⁵	5 10 ⁵	4 10 ¹⁰	2 10 ¹⁷	2 10 ¹¹
Cs-134	5 10 ⁴	6 10 ²	4 10 ²	3 10 ⁷	2 10 ¹²	2 10 ¹⁰
Cs-135m	5 10 ⁶	9 10 ⁵	5 10 ⁵	4 10 ¹⁰	2 10 ¹⁷	2 10 ¹³
Cs-135	5 10 ⁶	6 10 ³	4 10 ³	3 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Cs-136	5 10 ⁵	3 10 ³	2 10 ³	2 10 ⁸	2 10 ¹⁴	2 10 ¹⁰
Cs-137	5 10 ⁵	6 10 ²	5 10 ²	4 10 ⁷	2 10 ¹²	2 10 ¹⁰
Cs-138	5 10 ⁶	3 10 ⁵	8 10 ⁴	7 10 ⁹	2 10 ¹⁶	2 10 ¹⁰
<i>Calcium</i>						
Ca-41	5 10 ⁶	2 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹¹
Ca-45	5 10 ⁵	3 10 ³	7 10 ³	3 10 ⁸	2 10 ¹⁴	2 10 ¹⁰
Ca-47	5 10 ⁵	3 10 ³	4 10 ³	3 10 ⁸	2 10 ¹⁴	2 10 ¹⁰
<i>Californium</i>						
Cf-244	5 10 ⁵	3 10 ³	1 10 ⁵	2 10 ⁸	2 10 ¹⁴	2 10 ¹¹
Cf-246	5 10 ⁴	3 10 ¹	1 10 ³	3 10 ⁶	2 10 ¹²	2 10 ⁹
Cf-248	5 10 ³	3 10 ⁻¹	1 10 ²	3 10 ⁴	2 10 ¹⁰	2 10 ⁷
Cf-249	5 10 ³	2 10 ⁻²	5 10 ⁰	2 10 ³	2 10 ⁹	2 10 ⁶
Cf-250	5 10 ³	6 10 ⁻²	1 10 ¹	5 10 ³	2 10 ¹⁰	2 10 ⁶

1 Radionuclide name, symbol, isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b) (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1) (Bq)
		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
Californium (<i>continued</i>)						
Cf-251	5 10 ³	2 10 ⁻²	5 10 ⁰	2 10 ³	2 10 ⁹	2 10 ⁶
Cf-252	5 10 ³	1 10 ⁻¹	2 10 ¹	1 10 ⁴	2 10 ¹⁰	2 10 ⁶
Cf-253	5 10 ⁴	9 10 ⁰	2 10 ³	6 10 ⁵	2 10 ¹²	2 10 ⁸
Cf-254	5 10 ³	9 10 ⁻²	1 10 ¹	6 10 ³	2 10 ¹⁰	2 10 ⁶
Carbon						
C-11 (labelled organic compounds)	5 10 ⁶	2 10 ⁶	2 10 ⁶	2 10 ¹¹	2 10 ¹⁶	2 10 ¹⁰
C-11 (monoxide gas)	5 10 ⁶	6 10 ⁶	n.a.	4 10 ¹¹	2 10 ¹⁷	2 10 ¹⁴
C-11 (dioxide gas)	5 10 ⁶	3 10 ⁶	n.a.	2 10 ¹¹	2 10 ¹⁷	2 10 ¹⁴
C-14 (labelled organic compounds)	5 10 ⁵	1 10 ⁴	1 10 ⁴	9 10 ⁸	2 10 ¹⁵	2 10 ¹¹
C-14 (monoxide gas)	5 10 ⁵	9 10 ⁶	n.a.	6 10 ¹¹	2 10 ¹⁸	2 10 ¹⁴
C-14 (dioxide gas)	5 10 ⁵	9 10 ⁵	n.a.	8 10 ¹⁰	2 10 ¹⁷	2 10 ¹³
Cerium						
Ce-134	5 10 ⁵	3 10 ³	2 10 ³	2 10 ⁸	2 10 ¹⁴	2 10 ¹¹
Ce-135	5 10 ⁵	2 10 ⁴	7 10 ³	6 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Ce-137m	5 10 ⁵	2 10 ⁴	1 10 ⁴	9 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Ce-137	5 10 ⁶	6 10 ⁵	2 10 ⁵	2 10 ¹⁰	2 10 ¹⁷	2 10 ¹³
Ce-139	5 10 ⁵	3 10 ³	2 10 ⁴	2 10 ⁸	2 10 ¹⁴	2 10 ¹¹
Ce-141	5 10 ⁵	3 10 ³	7 10 ³	2 10 ⁸	2 10 ¹⁴	2 10 ¹⁰
Ce-143	5 10 ⁵	6 10 ³	5 10 ³	4 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Ce-144	5 10 ⁴	6 10 ⁴	1 10 ³	5 10 ⁶	2 10 ¹²	2 10 ⁹

1 Radionuclide name, symbol, isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b) (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1) (Bq)
		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
Chlorine						
Cl-36	5 10 ⁵	1 10 ³	7 10 ³	9 10 ⁷	2 10 ¹⁴	2 10 ¹⁰
Cl-38	5 10 ⁶	2 10 ⁵	7 10 ⁴	6 10 ⁹	2 10 ¹⁶	2 10 ¹⁰
Cl-39	5 10 ⁶	2 10 ⁵	1 10 ⁵	8 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Chromium						
Cr-48	5 10 ⁵	3 10 ⁴	2 10 ⁴	2 10 ⁹	2 10 ¹⁵	2 10 ¹²
Cr-49	5 10 ⁶	3 10 ⁵	1 10 ⁵	1 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Cr-51	5 10 ⁶	9 10 ⁴	1 10 ⁵	7 10 ⁹	2 10 ¹⁵	2 10 ¹²
Cobalt						
Co-55	5 10 ⁵	1 10 ⁴	5 10 ³	4 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Co-56	5 10 ⁵	9 10 ²	2 10 ³	7 10 ⁷	2 10 ¹⁴	2 10 ¹⁰
Co-57	5 10 ⁵	3 10 ³	2 10 ⁴	2 10 ⁸	2 10 ¹⁴	2 10 ¹¹
Co-58m	5 10 ⁶	3 10 ⁵	2 10 ⁵	2 10 ¹⁰	2 10 ¹⁶	2 10 ¹³
Co-58	5 10 ⁵	3 10 ³	6 10 ³	3 10 ⁸	2 10 ¹³	2 10 ¹¹
Co-60m	5 10 ⁶	1 10 ⁷	5 10 ⁶	4 10 ¹¹	2 10 ¹⁸	2 10 ¹⁴
Co-60 (Lung class W)	5 10 ⁴	9 10 ²	2 10 ³	6 10 ⁷	2 10 ¹²	2 10 ¹⁰
Co-60 (Lung class Y)	5 10 ⁴	2 10 ²	8 10 ²	1 10 ⁷	2 10 ¹²	2 10 ⁹
Co-61	5 10 ⁶	3 10 ⁵	8 10 ⁴	7 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Co-62m	5 10 ⁶	6 10 ⁵	1 10 ⁵	1 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰

1 Radionuclide name, symbol, isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b) (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1) (Bq)
		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
Copper						
Cu-60	5 10 ⁶	3 10 ⁵	1 10 ⁵	1 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Cu-61	5 10 ⁶	2 10 ⁵	6 10 ⁴	5 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Cu-64	5 10 ⁶	9 10 ⁴	5 10 ⁴	4 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Cu-67	5 10 ⁵	2 10 ⁴	2 10 ⁴	2 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Curium						
Cm-238	5 10 ⁵	6 10 ³	7 10 ⁴	4 10 ⁸	2 10 ¹⁴	2 10 ¹¹
Cm-240	5 10 ³	2 10 ⁰	5 10 ²	2 10 ⁵	2 10 ¹¹	2 10 ⁸
Cm-241	5 10 ⁴	1 10 ²	6 10 ³	9 10 ⁶	2 10 ¹³	2 10 ⁹
Cm-242	5 10 ³	1 10 ⁰	2 10 ²	1 10 ⁵	2 10 ¹¹	2 10 ⁷
Cm-243	5 10 ³	3 10 ⁻²	8 10 ⁰	3 10 ³	2 10 ⁹	2 10 ⁶
Cm-244	5 10 ³	6 10 ⁻²	1 10 ¹	4 10 ³	2 10 ⁹	2 10 ⁶
Cm-245	5 10 ³	2 10 ⁻²	6 10 ⁰	2 10 ³	2 10 ⁹	2 10 ⁶
Cm-246	5 10 ³	2 10 ⁻²	6 10 ⁰	2 10 ³	2 10 ⁹	2 10 ⁶
Cm-247	5 10 ³	3 10 ⁻²	6 10 ⁰	2 10 ³	2 10 ⁹	2 10 ⁶
Cm-248	5 10 ³	6 10 ⁻³	1 10 ⁰	5 10 ²	2 10 ⁸	2 10 ⁵
Cm-249	5 10 ⁶	6 10 ⁴	2 10 ⁵	5 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Dysprosium						
Dy-155	5 10 ⁶	1 10 ⁵	4 10 ⁴	3 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Dy-157	5 10 ⁶	3 10 ⁵	8 10 ⁴	7 10 ⁹	2 10 ¹⁷	2 10 ¹³
Dy-159	5 10 ⁵	1 10 ⁴	6 10 ⁴	9 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Dy-165	5 10 ⁶	2 10 ⁵	6 10 ⁴	5 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Dy-166	5 10 ⁵	3 10 ³	2 10 ³	2 10 ⁸	2 10 ¹⁴	2 10 ¹⁰

1 Radionuclide name, symbol, isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b) (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1) (Bq)
		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
Einsteinium						
Es-250	5 10 ³	3 10 ³	2 10 ⁵	2 10 ⁸	2 10 ¹⁴	2 10 ¹¹
Es-251	5 10 ³	6 10 ³	4 10 ⁴	4 10 ⁸	2 10 ¹⁴	2 10 ¹¹
Es-253	5 10 ⁴	6 10 ⁰	1 10 ³	6 10 ⁵	2 10 ¹²	2 10 ⁸
Es-254m	5 10 ⁴	6 10 ¹	1 10 ³	4 10 ⁶	2 10 ¹²	2 10 ⁹
Es-254	5 10 ³	6 10 ⁻¹	1 10 ²	4 10 ⁴	2 10 ¹⁰	2 10 ⁷
Erbium						
Er-161	5 10 ⁶	3 10 ⁵	7 10 ⁴	6 10 ⁹	2 10 ¹⁶	2 10 ¹³
Er-165	5 10 ⁶	9 10 ⁵	2 10 ⁵	2 10 ¹⁰	2 10 ¹⁷	2 10 ¹¹
Er-169	5 10 ³	1 10 ⁴	1 10 ⁴	9 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Er-171	5 10 ³	6 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Er-172	5 10 ³	6 10 ³	5 10 ³	4 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Europium						
Eu-145	5 10 ³	9 10 ³	7 10 ³	6 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Eu-146	5 10 ³	6 10 ³	5 10 ³	4 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Eu-147	5 10 ³	9 10 ³	1 10 ⁴	6 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Eu-148	5 10 ³	2 10 ³	5 10 ³	1 10 ⁸	2 10 ¹⁴	2 10 ¹⁰
Eu-149	5 10 ³	2 10 ⁴	5 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹¹
Eu-150 (12.6 hr)	5 10 ⁴	3 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Eu-150 (34.2 yr)	5 10 ⁴	9 10 ¹	4 10 ³	7 10 ⁶	2 10 ¹³	2 10 ⁹
Eu-152m	5 10 ³	3 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹⁰

1 Radionuclide name, symbol, isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b) (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1) (Bq)
		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
Europium (<i>continued</i>)						
Eu-152	5 10 ⁴	1 10 ²	4 10 ³	9 10 ⁶	2 10 ¹³	2 10 ⁹
Eu-154	5 10 ⁴	9 10 ¹	2 10 ³	7 10 ⁶	2 10 ¹¹	2 10 ⁹
Eu-155	5 10 ⁴	3 10 ²	1 10 ⁴	3 10 ⁷	2 10 ¹³	2 10 ¹⁰
Eu-156	5 10 ⁵	2 10 ³	2 10 ³	2 10 ⁸	2 10 ¹⁴	2 10 ¹⁰
Eu-157	5 10 ⁵	2 10 ⁴	1 10 ⁴	8 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Eu-158	5 10 ⁶	3 10 ⁵	8 10 ⁴	7 10 ⁹	2 10 ¹⁶	2 10 ¹⁰
Fermium						
Fm-252	5 10 ⁴	6 10 ¹	2 10 ³	5 10 ⁶	2 10 ¹³	2 10 ⁹
Fm-253	5 10 ⁴	6 10 ¹	6 10 ³	4 10 ⁶	2 10 ¹²	2 10 ⁹
Fm-254	5 10 ⁴	6 10 ²	1 10 ⁴	4 10 ⁷	2 10 ¹³	2 10 ¹⁰
Fm-255	5 10 ⁴	9 10 ¹	2 10 ³	8 10 ⁶	2 10 ¹³	2 10 ⁹
Fm-257	5 10 ³	1 10 ⁰	2 10 ²	9 10 ⁴	2 10 ¹¹	2 10 ⁷
Fluorine						
F-18	5 10 ⁶	3 10 ⁵	2 10 ⁵	2 10 ¹⁰	2 10 ¹⁵	2 10 ¹⁰
Francium						
Fr-222	5 10 ⁵	2 10 ³	1 10 ⁴	2 10 ⁸	2 10 ¹⁴	2 10 ¹¹
Fr-223	5 10 ⁵	3 10 ³	2 10 ³	2 10 ⁸	2 10 ¹⁵	2 10 ¹⁰

1 Radionuclide name, symbol, isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b) (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1) (Bq)
		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
Gadolinium						
Gd-145	5 10 ⁶	6 10 ⁵	2 10 ⁵	2 10 ¹⁰	2 10 ¹⁷	2 10 ¹³
Gd-146	5 10 ⁵	6 10 ³	6 10 ³	5 10 ⁷	2 10 ¹⁴	2 10 ¹⁰
Gd-147	5 10 ⁵	2 10 ⁴	8 10 ³	7 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Gd-148	5 10 ³	3 10 ⁻²	5 10 ¹	3 10 ³	2 10 ⁹	2 10 ⁶
Gd-149	5 10 ⁵	9 10 ³	1 10 ⁴	8 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Gd-151	5 10 ⁵	2 10 ³	2 10 ⁴	1 10 ⁸	2 10 ¹⁴	2 10 ¹⁰
Gd-152	5 10 ⁶	6 10 ⁻²	7 10 ¹	4 10 ³	2 10 ⁹	2 10 ⁶
Gd-153	5 10 ⁵	6 10 ²	2 10 ⁴	5 10 ⁷	2 10 ¹³	2 10 ¹⁰
Gd-159	5 10 ⁵	3 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Gallium						
Ga-65	5 10 ⁶	9 10 ⁵	2 10 ⁵	2 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Ga-66	5 10 ⁵	1 10 ⁴	5 10 ³	4 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Ga-67	5 10 ³	6 10 ⁴	4 10 ⁴	3 10 ⁹	2 10 ¹⁶	2 10 ¹²
Ga-68	5 10 ⁶	2 10 ⁵	7 10 ⁴	6 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Ga-70	5 10 ⁶	9 10 ⁵	2 10 ⁵	2 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Ga-72	5 10 ⁵	2 10 ⁴	5 10 ³	4 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Ga-73	5 10 ⁶	6 10 ⁴	2 10 ⁴	2 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Germanium						
Ge-66	5 10 ⁶	9 10 ⁴	1 10 ⁵	7 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Ge-67	5 10 ⁶	3 10 ⁵	1 10 ⁵	1 10 ¹⁰	2 10 ¹⁵	2 10 ¹⁰
Ge-68	5 10 ⁴	6 10 ²	2 10 ⁴	4 10 ⁷	2 10 ¹³	2 10 ¹⁰

1 Radionuclide name, symbol, isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b) (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1) (Bq)
		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
Germanium (<i>continued</i>)						
Ge-69	5 10 ⁵	3 10 ⁴	6 10 ⁴	3 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Ge-71	5 10 ⁶	2 10 ⁵	2 10 ⁶	2 10 ¹⁰	2 10 ¹⁶	2 10 ¹³
Ge-75	5 10 ⁶	3 10 ⁵	2 10 ⁵	2 10 ¹⁰	2 10 ¹⁵	2 10 ¹⁰
Ge-77	5 10 ⁵	3 10 ⁴	4 10 ⁴	2 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Ge-78	5 10 ⁶	9 10 ⁴	1 10 ⁵	8 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Gold						
Au-193	5 10 ⁶	9 10 ⁴	4 10 ⁴	3 10 ⁹	2 10 ¹⁶	2 10 ¹²
Au-194	5 10 ⁵	2 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹²
Au-195	5 10 ⁵	2 10 ³	2 10 ⁴	2 10 ⁸	2 10 ¹⁴	2 10 ¹¹
Au-198m	5 10 ⁵	6 10 ³	5 10 ³	4 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Au-198	5 10 ⁵	9 10 ³	6 10 ³	5 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Au-199	5 10 ⁵	2 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Au-200m	5 10 ⁵	1 10 ⁴	5 10 ³	4 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Au-200	5 10 ⁶	3 10 ⁵	1 10 ⁵	1 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Au-201	5 10 ⁶	9 10 ⁵	4 10 ⁵	3 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Hafnium						
Hf-170	5 10 ⁵	2 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹²
Hf-172	5 10 ⁴	3 10 ¹	6 10 ³	3 10 ⁶	2 10 ¹²	2 10 ⁹
Hf-173	5 10 ⁵	6 10 ⁴	2 10 ⁴	2 10 ⁹	2 10 ¹⁶	2 10 ¹²
Hf-175	5 10 ⁵	3 10 ³	1 10 ⁴	4 10 ⁸	2 10 ¹⁴	2 10 ¹¹
Hf-177m	5 10 ⁶	3 10 ⁵	8 10 ⁴	7 10 ⁹	2 10 ¹⁶	2 10 ¹³

1 Radionuclide name, symbol, isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b) (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1) (Bq)
		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
Hafnium (<i>continued</i>)						
Hf-178m	5 10 ⁴	6 10 ⁰	1 10 ³	5 10 ⁵	2 10 ¹¹	2 10 ⁸
Hf-179m	5 10 ³	2 10 ³	5 10 ³	1 10 ⁸	2 10 ¹⁴	2 10 ¹⁰
Hf-180m	5 10 ⁶	9 10 ⁴	4 10 ⁴	3 10 ⁹	2 10 ¹⁶	2 10 ¹²
Hf-181	5 10 ³	9 10 ²	5 10 ³	6 10 ⁷	2 10 ¹³	2 10 ¹⁰
Hf-182m	5 10 ⁶	3 10 ⁵	1 10 ⁵	1 10 ¹⁰	2 10 ¹⁶	2 10 ¹³
Hf-182	5 10 ⁴	3 10 ⁰	8 10 ²	3 10 ⁵	2 10 ¹¹	2 10 ⁸
Hf-183	5 10 ⁶	2 10 ⁵	1 10 ⁵	8 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Hf-184	5 10 ³	3 10 ⁴	1 10 ⁴	9 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Holmium						
Ho-155	5 10 ⁶	6 10 ⁵	2 10 ⁵	2 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Ho-157	5 10 ⁶	6 10 ⁶	1 10 ⁶	1 10 ¹¹	2 10 ¹⁶	2 10 ¹⁰
Ho-159	5 10 ⁶	6 10 ⁶	1 10 ⁶	8 10 ¹⁰	2 10 ¹⁷	2 10 ¹⁴
Ho-161	5 10 ⁶	2 10 ⁶	5 10 ⁵	4 10 ¹⁰	2 10 ¹⁷	2 10 ¹⁴
Ho-162m	5 10 ⁶	1 10 ⁶	2 10 ⁵	2 10 ¹⁰	2 10 ¹⁷	2 10 ¹³
Ho-162	1 10 ⁶	1 10 ⁷	2 10 ⁶	2 10 ¹¹	2 10 ¹⁶	2 10 ¹⁰
Ho-164m	5 10 ⁶	2 10 ⁶	5 10 ⁵	4 10 ¹⁰	2 10 ¹⁷	2 10 ¹³
Ho-164	5 10 ⁶	3 10 ⁶	8 10 ⁵	7 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Ho-166m	5 10 ⁴	3 10 ¹	2 10 ³	3 10 ⁶	2 10 ¹²	2 10 ⁹
Ho-166	5 10 ³	9 10 ³	4 10 ³	3 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Ho-167	5 10 ⁶	3 10 ⁵	7 10 ⁴	6 10 ⁹	2 10 ¹⁵	2 10 ¹⁰

1 Radionuclide name, symbol, isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b) (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1) (Bq)
		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
Hydrogen						
H-3 Tritiated compounds	5 10 ⁶	2 10 ⁵	4 10 ⁶	3 10 ¹⁰	2 10 ¹⁷	2 10 ¹³
Elemental	5 10 ⁶	6 10 ⁹	n.a.	n.a.	2 10 ¹⁷	2 10 ¹³
Indium						
In-109	5 10 ⁶	2 10 ⁵	8 10 ⁴	7 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
In-110 (69.1 min)	5 10 ⁶	2 10 ⁵	7 10 ⁴	6 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
In-110 (4.9 hr)	5 10 ⁶	9 10 ⁴	2 10 ⁴	2 10 ⁹	2 10 ¹⁶	2 10 ¹²
In-111	5 10 ⁵	3 10 ⁴	2 10 ⁴	2 10 ⁹	2 10 ¹⁶	2 10 ¹²
In-112	5 10 ⁶	3 10 ⁶	7 10 ⁵	6 10 ¹⁰	2 10 ¹⁷	2 10 ¹⁰
In-113m	5 10 ⁶	6 10 ⁵	2 10 ⁵	2 10 ¹⁰	2 10 ¹⁷	2 10 ¹¹
In-114m	5 10 ⁴	3 10 ²	1 10 ³	2 10 ⁷	2 10 ¹³	2 10 ¹⁰
In-115m	5 10 ⁶	2 10 ⁵	6 10 ⁴	5 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
In-115	5 10 ⁶	6 10 ⁹	1 10 ²	5 10 ⁵	2 10 ¹²	2 10 ⁸
In-116m	5 10 ⁶	3 10 ⁵	1 10 ⁵	9 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
In-117m	5 10 ⁶	2 10 ⁵	5 10 ⁴	4 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
In-117	5 10 ⁶	9 10 ⁵	2 10 ⁵	2 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
In-119m	5 10 ⁶	6 10 ⁵	1 10 ⁵	1 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Iodine						
I-120m	5 10 ⁶	9 10 ⁴	5 10 ⁴	4 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
I-120	5 10 ⁵	3 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
I-121	5 10 ⁶	9 10 ⁴	5 10 ⁴	4 10 ⁹	2 10 ¹⁵	2 10 ¹⁰

1 Radionuclide name, symbol, isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b) (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1) (Bq)
		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
<i>Iodine (continued)</i>						
I-123	5 10 ⁵	3 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹²
I-124	5 10 ⁴	3 10 ²	2 10 ²	2 10 ⁷	2 10 ¹³	2 10 ¹⁰
I-125	5 10 ⁴	3 10 ²	1 10 ²	1 10 ⁷	2 10 ¹³	2 10 ¹⁰
I-126	5 10 ⁴	2 10 ²	1 10 ²	8 10 ⁶	2 10 ¹³	2 10 ⁹
I-128	5 10 ⁶	6 10 ⁵	2 10 ⁵	2 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
I-129	5 10 ⁶	3 10 ¹	2 10 ¹	2 10 ⁶	2 10 ¹²	2 10 ⁹
I-130	5 10 ⁵	3 10 ³	1 10 ³	1 10 ⁸	2 10 ¹⁴	2 10 ¹⁰
I-131	5 10 ⁴	2 10 ²	1 10 ²	1 10 ⁷	2 10 ¹³	2 10 ¹⁰
I-132m	5 10 ⁵	3 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹²
I-132	5 10 ⁵	3 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
I-133	5 10 ⁵	1 10 ³	6 10 ²	5 10 ⁷	2 10 ¹⁴	2 10 ¹⁰
I-134	5 10 ⁶	2 10 ⁵	1 10 ⁵	8 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
I-135	5 10 ⁵	6 10 ³	4 10 ³	3 10 ⁸	2 10 ¹⁴	2 10 ¹⁰
<i>Iridium</i>						
Ir-182	5 10 ⁶	6 10 ⁵	2 10 ⁵	2 10 ¹⁰	2 10 ¹⁷	2 10 ¹³
Ir-184	5 10 ⁶	1 10 ⁵	4 10 ⁴	3 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Ir-185	5 10 ⁵	6 10 ⁴	2 10 ⁴	2 10 ⁹	2 10 ¹⁵	2 10 ¹²
Ir-186	5 10 ⁵	3 10 ⁴	1 10 ⁴	9 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Ir-187	5 10 ⁶	1 10 ⁵	5 10 ⁴	4 10 ⁹	2 10 ¹⁵	2 10 ¹²
Ir-188	5 10 ⁵	2 10 ⁴	8 10 ³	7 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Ir-189	5 10 ⁵	2 10 ⁴	2 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹¹
Ir-190m	5 10 ⁶	9 10 ⁵	7 10 ⁵	6 10 ¹⁰	2 10 ¹⁶	2 10 ¹³

1 Radionuclide name, symbol, isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b) (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1) (Bq)
		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
Iridium (continued)						
Ir-190	5 10 ⁵	3 10 ³	5 10 ³	3 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Ir-192m	5 10 ⁴	3 10 ²	1 10 ⁴	6 10 ⁶	2 10 ¹³	2 10 ⁹
Ir-192	5 10 ⁵	9 10 ²	5 10 ³	8 10 ⁷	2 10 ¹⁴	2 10 ¹⁰
Ir-194m	5 10 ⁴	3 10 ²	2 10 ³	3 10 ⁷	2 10 ¹³	2 10 ¹⁰
Ir-194	5 10 ⁵	9 10 ³	5 10 ³	4 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Ir-195m	5 10 ⁶	9 10 ⁴	4 10 ⁴	3 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Ir-195	5 10 ⁶	2 10 ⁵	7 10 ⁴	6 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Iron						
Fe-52	5 10 ⁵	1 10 ⁴	4 10 ³	3 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Fe-55 (Lung class D)	5 10 ⁵	9 10 ³	4 10 ⁴	7 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Fe-55 (Lung class W)	5 10 ⁵	2 10 ⁴	4 10 ⁴	2 10 ⁹	2 10 ¹⁵	2 10 ¹²
Fe-59	5 10 ⁵	2 10 ³	4 10 ³	1 10 ⁸	2 10 ¹³	2 10 ¹⁰
Fe-60	5 10 ⁴	3 10 ¹	6 10 ¹	2 10 ⁶	2 10 ¹³	2 10 ⁹
Krypton						
Kr-74	5 10 ⁵	3 10 ⁵	n.a.	2 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁴
Kr-76	5 10 ⁶	6 10 ⁶	n.a.	5 10 ¹¹	2 10 ¹⁶	2 10 ¹⁴
Kr-77	5 10 ⁵	6 10 ⁵	n.a.	5 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁴
Kr-79	5 10 ⁶	9 10 ⁶	n.a.	7 10 ¹¹	2 10 ¹⁶	2 10 ¹⁴
Kr-81	5 10 ⁶	9 10 ⁷	n.a.	7 10 ¹²	2 10 ¹⁴	2 10 ¹⁴
Kr-83m	5 10 ⁶	3 10 ⁸	n.a.	2 10 ¹³	2 10 ¹⁹	2 10 ¹⁴
Kr-85m	5 10 ⁶	2 10 ⁶	n.a.	1 10 ¹¹	2 10 ¹⁶	2 10 ¹³

1 Radionuclide name, symbol, isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b) (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1) (Bq)
		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
Krypton (<i>continued</i>)						
Kr-85	5 10 ⁶	2 10 ⁶	n.a.	1 10 ¹¹	2 10 ¹⁸	2 10 ¹³
Kr-87	5 10 ⁵	2 10 ⁵	n.a.	2 10 ¹⁰	2 10 ¹⁵	2 10 ¹²
Kr-88	5 10 ⁵	9 10 ⁵	n.a.	7 10 ¹⁰	2 10 ¹⁵	2 10 ¹³
Lanthanum						
La-131	5 10 ⁶	6 10 ⁵	2 10 ⁵	2 10 ¹⁰	2 10 ¹⁵	2 10 ¹⁰
La-132	5 10 ⁵	6 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
La-135	5 10 ⁶	3 10 ⁵	1 10 ⁵	1 10 ¹⁰	2 10 ¹⁵	2 10 ¹³
La-137	5 10 ⁴	3 10 ²	5 10 ⁴	2 10 ⁷	2 10 ¹³	2 10 ¹⁰
La-138	5 10 ⁶	2 10 ¹	4 10 ³	1 10 ⁶	2 10 ¹²	2 10 ⁸
La-140	5 10 ⁵	6 10 ³	2 10 ³	2 10 ⁸	2 10 ¹⁴	2 10 ¹⁰
La-141	5 10 ⁵	3 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
La-142	5 10 ⁶	9 10 ⁴	4 10 ⁴	3 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
La-143	5 10 ⁶	3 10 ⁵	1 10 ⁵	1 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Lead						
Pb-195m	5 10 ⁶	9 10 ⁵	2 10 ⁵	2 10 ¹⁰	2 10 ¹⁷	2 10 ¹³
Pb-198	5 10 ⁶	3 10 ⁵	1 10 ⁵	1 10 ¹⁰	2 10 ¹⁷	2 10 ¹³
Pb-199	5 10 ⁶	3 10 ⁵	1 10 ⁵	8 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Pb-200	5 10 ⁵	3 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹²
Pb-201	5 10 ⁶	9 10 ⁴	4 10 ⁴	3 10 ⁹	2 10 ¹⁵	2 10 ¹²
Pb-202m	5 10 ⁶	1 10 ⁵	4 10 ⁴	3 10 ⁹	2 10 ¹⁶	2 10 ¹²

1 Radionuclide name, symbol, isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b) (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1) (Bq)
		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
<i>Lead (continued)</i>						
Pb-202	5 10 ⁴	2 10 ²	6 10 ²	2 10 ⁷	2 10 ¹³	2 10 ¹⁰
Pb-203	5 10 ⁵	3 10 ⁴	2 10 ⁴	2 10 ⁹	2 10 ¹⁵	2 10 ¹²
Pb-205	5 10 ⁶	6 10 ³	1 10 ⁴	5 10 ⁸	2 10 ¹⁴	2 10 ¹¹
Pb-209	5 10 ⁶	3 10 ⁵	1 10 ⁵	9 10 ²	2 10 ¹⁵	2 10 ¹⁰
Pb-210	5 10 ³	1 10 ⁰	2 10 ⁰	9 10 ⁴	2 10 ¹¹	2 10 ⁷
Pb-211	5 10 ⁵	3 10 ³	5 10 ⁴	2 10 ⁸	2 10 ¹⁴	2 10 ¹⁰
Pb-212	5 10 ⁴	2 10 ²	4 10 ²	1 10 ⁷	2 10 ¹³	2 10 ⁹
Pb-214	5 10 ⁵	3 10 ³	4 10 ⁴	3 10 ⁸	2 10 ¹⁴	2 10 ¹⁰
<i>Lutetium</i>						
Lu-169	5 10 ⁵	2 10 ⁴	1 10 ⁴	9 10 ⁸	2 10 ¹⁵	2 10 ¹²
Lu-170	5 10 ⁵	9 10 ³	5 10 ³	4 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Lu-171	5 10 ⁵	9 10 ³	8 10 ³	7 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Lu-172	5 10 ⁵	6 10 ³	5 10 ³	4 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Lu-173	5 10 ⁵	1 10 ³	2 10 ⁴	1 10 ⁸	2 10 ¹⁴	2 10 ¹⁰
Lu-174m	5 10 ⁵	9 10 ²	1 10 ⁴	8 10 ⁷	2 10 ¹⁴	2 10 ¹⁰
Lu-174	5 10 ⁴	6 10 ²	2 10 ⁴	4 10 ⁷	2 10 ¹⁴	2 10 ¹⁰
Lu-176m	5 10 ⁶	1 10 ⁵	4 10 ⁴	3 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Lu-176	5 10 ⁶	2 10 ¹	4 10 ³	2 10 ⁶	2 10 ¹²	2 10 ⁹
Lu-177m	5 10 ⁴	3 10 ²	4 10 ³	3 10 ⁷	2 10 ¹³	2 10 ¹⁰
Lu-177	5 10 ⁵	9 10 ³	1 10 ⁴	8 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Lu-178m	5 10 ⁶	9 10 ⁵	2 10 ⁵	2 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Lu-178	5 10 ⁶	6 10 ⁵	1 10 ⁵	1 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Lu-179	5 10 ⁶	6 10 ⁴	2 10 ⁴	2 10 ⁹	2 10 ¹⁵	2 10 ¹⁰

1 Radionuclide name, symbol, isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b) (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1) (Bq)
		3. Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
Magnesium						
Mg-28	5 10 ⁵	6 10 ³	2 10 ³	2 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Manganese						
Mn-51	5 10 ⁶	2 10 ⁵	8 10 ⁴	7 10 ⁹	2 10 ¹⁶	2 10 ¹⁰
Mn-52m	5 10 ⁶	3 10 ⁵	1 10 ⁵	1 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Mn-52	5 10 ⁵	3 10 ³	4 10 ³	3 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Mn-53	5 10 ⁶	6 10 ⁴	2 10 ⁵	4 10 ⁹	2 10 ¹⁵	2 10 ¹²
Mn-54	5 10 ⁵	3 10 ³	8 10 ³	3 10 ⁸	2 10 ¹³	2 10 ¹¹
Mn-56	5 10 ⁶	6 10 ⁴	2 10 ⁴	2 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Mendelevium						
Md-257	5 10 ⁴	3 10 ²	4 10 ⁴	4 10 ⁷	2 10 ¹³	2 10 ¹⁰
Md-258	5 10 ³	2 10 ⁹	4 10 ²	1 10 ⁵	2 10 ¹¹	2 10 ⁷
Mercury						
Hg-193m	5 10 ⁵	3 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Hg-193	5 10 ⁶	2 10 ⁵	7 10 ⁴	6 10 ⁹	2 10 ¹⁶	2 10 ¹²
Hg-194	5 10 ⁴	2 10 ²	4 10 ³	2 10 ⁷	2 10 ¹³	2 10 ⁹
Hg-195m	5 10 ⁵	2 10 ⁴	1 10 ⁴	9 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Hg-195	5 10 ⁶	2 10 ⁵	6 10 ⁴	5 10 ⁹	2 10 ¹⁵	2 10 ¹²
Hg-197m	5 10 ⁵	2 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹⁰

1 Radionuclide name, symbol, isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b). (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1) (Bq)
		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
Mercury (continued)						
Hg-197	5 10 ⁵	3 10 ⁴	2 10 ⁴	2 10 ⁹	2 10 ¹⁵	2 10 ¹²
Hg-199m	5 10 ⁶	6 10 ⁵	2 10 ⁵	2 10 ¹⁰	2 10 ¹⁶	2 10 ¹³
Hg-203	5 10 ⁵	3 10 ³	2 10 ³	3 10 ⁸	2 10 ¹⁴	2 10 ¹⁰
Molybdenum						
Mo-90	5 10 ⁵	2 10 ⁴	8 10 ³	7 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Mo-93m	5 10 ⁶	6 10 ⁴	2 10 ⁴	2 10 ⁹	2 10 ¹⁶	2 10 ¹²
Mo-93	5 10 ⁵	9 10 ²	1 10 ⁴	7 10 ⁷	2 10 ¹⁴	2 10 ¹⁰
Mo-99	5 10 ⁵	6 10 ³	5 10 ³	4 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Mo-101	5 10 ⁶	6 10 ⁵	2 10 ⁵	2 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Neodymium						
Nd-136	5 10 ⁶	2 10 ⁵	7 10 ⁴	6 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Nd-138	5 10 ⁵	2 10 ⁴	8 10 ³	7 10 ⁸	2 10 ¹⁵	2 10 ¹²
Nd-139m	5 10 ⁶	6 10 ⁴	2 10 ⁴	2 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Nd-139	5 10 ⁶	2 10 ⁶	4 10 ⁵	3 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Nd-141	5 10 ⁶	3 10 ⁶	7 10 ⁵	6 10 ¹⁰	2 10 ¹⁵	2 10 ¹⁰
Nd-147	5 10 ⁵	3 10 ³	5 10 ³	3 10 ⁸	2 10 ¹⁴	2 10 ¹⁰
Nd-149	5 10 ⁶	1 10 ⁵	5 10 ⁴	4 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Nd-151	5 10 ⁶	9 10 ⁵	4 10 ⁵	3 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰

1 Radionuclide name, symbol, isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b) (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1) (Bq)
		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
Neptunium						
Np-232	5 10 ⁵	1 10 ⁴	1 10 ⁵	9 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Np-233	5 10 ⁶	2 10 ⁷	4 10 ⁶	3 10 ¹¹	2 10 ¹⁶	2 10 ¹⁴
Np-234	5 10 ⁵	1 10 ⁴	1 10 ⁴	8 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Np-235	5 10 ⁵	6 10 ³	5 10 ⁴	5 10 ⁸	2 10 ¹⁴	2 10 ¹¹
Np-236 (22.5 hr)	5 10 ⁴	2 10 ²	2 10 ³	1 10 ⁷	2 10 ¹³	2 10 ⁹
Np-236 (1.15 10 ⁵ yr)	5 10 ³	1 10 ⁻¹	1 10 ⁰	1 10 ⁴	2 10 ¹⁰	2 10 ⁶
Np-237	5 10 ³	3 10 ⁻²	4 10 ⁻¹	2 10 ³	2 10 ⁹	2 10 ⁶
Np-238	5 10 ⁴	3 10 ²	4 10 ³	3 10 ⁷	2 10 ¹³	2 10 ¹⁰
Np-239	5 10 ⁵	1 10 ⁴	7 10 ³	6 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Np-240	5 10 ⁶	3 10 ⁵	1 10 ⁵	8 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Nickel						
Ni-56	5 10 ⁵	6 10 ³	6 10 ³	5 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Ni-57	5 10 ⁵	2 10 ⁴	7 10 ³	6 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Ni-59	5 10 ⁶	9 10 ³	4 10 ⁴	7 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Ni-63	5 10 ⁵	3 10 ³	1 10 ⁴	3 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Ni-65	5 10 ⁶	1 10 ⁵	4 10 ⁴	3 10 ⁹	2 10 ¹⁶	2 10 ¹⁰
Ni-66 (inorganic)	5 10 ⁵	3 10 ³	1 10 ³	1 10 ⁸	2 10 ¹⁴	2 10 ¹⁰
Ni-66 (vapour)	5 10 ⁵	2 10 ⁴	n.a.	1 10 ⁹	2 10 ¹⁵	2 10 ¹⁰

1 Radionuclide name, symbol, isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b) (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1) (Bq)
		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
Niobium						
Nb-88	5 10 ⁶	9 10 ⁵	2 10 ⁵	2 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Nb-89 (66 min)	5 10 ⁶	2 10 ⁵	5 10 ⁴	4 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Nb-89 (122 min)	5 10 ⁶	6 10 ⁴	2 10 ⁴	2 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Nb-90	5 10 ⁵	1 10 ⁴	5 10 ³	4 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Nb-93m	5 10 ⁵	9 10 ³	4 10 ⁴	6 10 ⁷	2 10 ¹⁴	2 10 ¹⁰
Nb-94	5 10 ⁴	6 10 ¹	5 10 ³	6 10 ⁶	2 10 ¹³	2 10 ⁹
Nb-95m	5 10 ⁵	9 10 ³	1 10 ⁴	8 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Nb-95	5 10 ⁵	6 10 ³	1 10 ⁴	4 10 ⁸	2 10 ¹⁴	2 10 ¹¹
Nb-96	5 10 ⁵	1 10 ⁴	5 10 ³	4 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Nb-97	5 10 ⁶	3 10 ⁵	1 10 ⁵	8 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Nb-98	5 10 ⁶	2 10 ⁵	6 10 ⁴	5 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Osmium						
Os-180	5 10 ⁶	2 10 ⁶	5 10 ⁵	4 10 ¹⁰	2 10 ¹⁶	2 10 ¹³
Os-181	5 10 ⁶	2 10 ⁵	6 10 ⁴	5 10 ⁹	2 10 ¹⁶	2 10 ¹³
Os-182	5 10 ⁵	2 10 ⁴	1 10 ⁴	8 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Os-185	5 10 ⁵	2 10 ³	1 10 ⁴	2 10 ⁸	2 10 ¹⁴	2 10 ¹¹
Os-189m	5 10 ⁶	9 10 ⁵	4 10 ⁵	3 10 ¹⁰	2 10 ¹⁶	2 10 ¹³
Os-191m	5 10 ⁶	9 10 ⁴	6 10 ⁴	5 10 ⁹	2 10 ¹⁵	2 10 ¹²
Os-191	5 10 ⁵	6 10 ³	1 10 ⁴	5 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Os-193	5 10 ⁵	1 10 ⁴	7 10 ³	6 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Os-194	5 10 ⁴	3 10 ¹	2 10 ³	3 10 ⁶	2 10 ¹²	2 10 ⁹

1 Radionuclide name, symbol, isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b) (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1) (Bq)
		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
Palladium						
Pd-100	5 10 ⁵	6 10 ³	6 10 ³	5 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Pd-101	5 10 ⁶	2 10 ⁵	6 10 ⁴	5 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Pd-103	5 10 ⁵	2 10 ⁴	2 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹¹
Pd-107	5 10 ⁶	2 10 ³	1 10 ⁵	1 10 ⁸	2 10 ¹⁴	2 10 ⁹
Pd-109	5 10 ⁵	2 10 ⁴	1 10 ⁴	9 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Phosphorus						
P-32	5 10 ⁵	2 10 ³	2 10 ³	1 10 ⁸	2 10 ¹⁴	2 10 ¹⁰
P-33	5 10 ⁵	1 10 ⁴	2 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Platinum						
Pt-186	5 10 ⁶	2 10 ⁵	6 10 ⁴	5 10 ⁹	2 10 ¹⁶	2 10 ¹²
Pt-188	5 10 ⁵	9 10 ³	7 10 ³	6 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Pt-189	5 10 ⁶	1 10 ⁵	5 10 ⁴	4 10 ⁹	2 10 ¹⁵	2 10 ¹²
Pt-191	5 10 ⁵	3 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁶	2 10 ¹²
Pt-193m	5 10 ⁵	3 10 ⁴	1 10 ⁴	9 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Pt-193	5 10 ⁶	1 10 ⁵	1 10 ⁵	9 10 ⁹	2 10 ¹⁶	2 10 ¹²
Pt-195m	5 10 ⁵	2 10 ⁴	8 10 ³	7 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Pt-197m	5 10 ⁶	2 10 ⁵	7 10 ⁴	6 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Pt-197	5 10 ⁵	3 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Pt-199	5 10 ⁶	6 10 ⁵	2 10 ⁵	2 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Pt-200	5 10 ⁵	2 10 ⁴	5 10 ³	4 10 ⁸	2 10 ¹⁵	2 10 ¹¹

1 Radionuclide name, symbol, isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b) (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1) (Bq)
		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
Plutonium						
Pu-234	5 10 ⁵	9 10 ³	4 10 ⁴	7 10 ⁷	2 10 ¹⁴	2 10 ¹⁰
Pu-235	5 10 ⁶	1 10 ⁷	4 10 ⁶	3 10 ¹¹	2 10 ¹⁷	2 10 ¹⁴
Pu-236	5 10 ³	9 10 ⁻²	1 10 ²	7 10 ³	2 10 ¹⁰	2 10 ⁶
Pu-237	5 10 ⁵	2 10 ⁴	6 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹¹
Pu-238 (Lung class W)	5 10 ³	3 10 ⁻²	4 10 ¹	2 10 ³	2 10 ⁹	2 10 ⁶
Pu-238 (Lung class Y)	5 10 ³	9 10 ⁻²	4 10 ¹	6 10 ³	2 10 ⁹	2 10 ⁶
Pu-239 (Lung class W)	5 10 ³	2 10 ⁻²	2 10 ¹	2 10 ³	2 10 ⁹	2 10 ⁶
Pu-239 (Lung class Y)	5 10 ³	6 10 ⁻²	2 10 ¹	5 10 ³	2 10 ⁹	2 10 ⁶
Pu-240 (Lung class W)	5 10 ³	2 10 ⁻²	2 10 ¹	2 10 ³	2 10 ⁹	2 10 ⁶
Pu-240 (Lung class Y)	5 10 ³	6 10 ⁻²	2 10 ¹	5 10 ³	2 10 ⁹	2 10 ⁶
Pu-241 (Lung class W)	5 10 ³	1 10 ⁰	1 10 ³	1 10 ⁵	2 10 ¹¹	2 10 ⁷
Pu-241 (Lung class Y)	5 10 ³	3 10 ⁰	1 10 ³	2 10 ⁵	2 10 ¹¹	2 10 ⁸
Pu-242	5 10 ³	3 10 ⁻²	4 10 ¹	2 10 ³	2 10 ⁹	2 10 ⁶
Pu-243	5 10 ⁶	2 10 ⁵	7 10 ⁴	6 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Pu-244	5 10 ⁴	3 10 ⁻²	4 10 ¹	2 10 ³	2 10 ⁹	2 10 ⁶
Pu-245	5 10 ⁵	2 10 ⁴	1 10 ⁴	8 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Polonium						
Po-203	5 10 ⁶	3 10 ⁵	1 10 ⁵	9 10 ⁹	2 10 ¹⁶	2 10 ¹³
Po-205	5 10 ⁶	2 10 ⁵	1 10 ⁵	8 10 ⁹	2 10 ¹⁶	2 10 ¹³
Po-207	5 10 ⁶	1 10 ⁵	4 10 ⁴	3 10 ⁹	2 10 ¹⁶	2 10 ¹²
Po-210	5 10 ³	3 10 ⁰	1 10 ²	2 10 ⁵	2 10 ¹¹	2 10 ⁸

1 Radionuclide name, symbol, isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b) (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1) (Bq)
		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
Potassium						
K-40	5 10 ⁶	2 10 ³	1 10 ³	1 10 ⁸	2 10 ¹⁴	2 10 ¹¹
K-42	5 10 ⁵	2 10 ⁴	2 10 ⁴	2 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
K-43	5 10 ⁵	3 10 ⁴	2 10 ⁴	2 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
K-44	5 10 ⁶	3 10 ⁵	1 10 ⁵	8 10 ⁹	2 10 ¹⁶	2 10 ¹⁰
K-45	5 10 ⁶	6 10 ⁵	1 10 ⁵	1 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Praseodymium						
Pr-136	5 10 ⁶	9 10 ⁵	2 10 ⁵	2 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Pr-137	5 10 ⁶	6 10 ⁵	1 10 ⁵	1 10 ¹⁰	2 10 ¹⁵	2 10 ¹⁰
Pr-138m	5 10 ⁶	2 10 ⁵	5 10 ⁴	4 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Pr-139	5 10 ⁶	6 10 ⁵	1 10 ⁵	1 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Pr-142m	5 10 ⁶	6 10 ⁵	4 10 ⁵	3 10 ¹⁰	2 10 ¹⁶	2 10 ¹³
Pr-142	5 10 ⁵	9 10 ³	5 10 ³	4 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Pr-143	5 10 ⁵	3 10 ³	4 10 ³	2 10 ⁸	2 10 ¹⁴	2 10 ¹⁰
Pr-144	5 10 ⁶	6 10 ⁵	1 10 ⁵	1 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Pr-145	5 10 ⁵	3 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Pr-147	5 10 ⁶	9 10 ⁵	2 10 ⁵	2 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Promethium						
Pm-141	5 10 ⁶	9 10 ⁵	2 10 ⁵	2 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Pm-143	5 10 ⁵	3 10 ³	2 10 ⁴	2 10 ⁸	2 10 ¹⁴	2 10 ¹¹
Pm-144	5 10 ⁴	6 10 ²	6 10 ³	4 10 ⁷	2 10 ¹⁴	2 10 ¹⁰

1 Radionuclide name, symbol, isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b) (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1) (Bq)
		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
Promethium (<i>continued</i>).						
Pm-145	5 10 ⁵	9 10 ²	5 10 ⁴	7 10 ⁷	2 10 ¹³	2 10 ¹⁰
Pm-146	5 10 ⁴	2 10 ²	7 10 ³	2 10 ⁷	2 10 ¹³	2 10 ¹⁰
Pm-147	5 10 ⁵	6 10 ²	2 10 ⁴	5 10 ⁷	2 10 ¹³	2 10 ¹⁰
Pm-148m	5 10 ⁵	1 10 ³	4 10 ³	1 10 ⁸	2 10 ¹⁴	2 10 ¹⁰
Pm-148	5 10 ⁵	2 10 ³	2 10 ³	2 10 ⁸	2 10 ¹⁴	2 10 ¹⁰
Pm-149	5 10 ⁵	9 10 ³	5 10 ³	4 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Pm-150	5 10 ⁶	9 10 ⁴	2 10 ⁴	2 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Pm-151	5 10 ⁵	2 10 ⁴	8 10 ³	7 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Protactinium						
Pa-227	5 10 ⁴	6 10 ²	1 10 ⁴	4 10 ⁷	2 10 ¹³	2 10 ¹⁰
Pa-228	5 10 ⁴	6 10 ¹	6 10 ³	4 10 ⁶	2 10 ¹²	2 10 ⁹
Pa-230	5 10 ⁴	2 10 ¹	2 10 ³	1 10 ⁶	2 10 ¹²	2 10 ⁸
Pa-231	5 10 ³	6 10 ⁻³	8 10 ⁻¹	6 10 ²	2 10 ⁸	2 10 ⁵
Pa-232	5 10 ⁴	9 10 ¹	6 10 ³	8 10 ⁶	2 10 ¹³	2 10 ¹⁰
Pa-233	5 10 ⁵	3 10 ³	6 10 ³	2 10 ⁸	2 10 ¹⁴	2 10 ¹⁰
Pa-234	5 10 ⁵	3 10 ⁴	1 10 ⁴	9 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Radium						
Ra-223	5 10 ³	3 10 ⁰	2 10 ¹	3 10 ⁵	2 10 ¹¹	2 10 ⁸
Ra-224	5 10 ⁴	9 10 ⁰	4 10 ¹	6 10 ⁵	2 10 ¹²	2 10 ⁸
Ra-225	5 10 ³	3 10 ⁰	4 10 ¹	2 10 ⁵	2 10 ¹¹	2 10 ⁸

1 Radionuclide name, symbol, isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b) (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1) (Bq)
		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
Radium (<i>continued</i>)						
Ra-226	5 10 ³	3 10 ⁰	8 10 ⁰	2 10 ⁵	2 10 ¹¹	2 10 ⁸
Ra-227	5 10 ⁶	6 10 ⁴	7 10 ⁴	5 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Ra-228	5 10 ³	6 10 ⁰	1 10 ¹	4 10 ⁵	2 10 ¹²	2 10 ⁸
Rhenium						
Re-177	5 10 ⁶	1 10 ⁶	5 10 ⁵	4 10 ¹⁰	2 10 ¹⁷	2 10 ¹³
Re-178	5 10 ⁶	1 10 ⁶	4 10 ⁵	3 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Re-181	5 10 ³	3 10 ⁴	2 10 ⁴	2 10 ⁹	2 10 ¹⁵	2 10 ¹²
Re-182 (12.7 hr)	5 10 ⁶	6 10 ⁴	4 10 ⁴	3 10 ⁹	2 10 ¹⁵	2 10 ¹²
Re-182 (64 hr)	5 10 ³	9 10 ³	6 10 ³	5 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Re-184m	5 10 ³	2 10 ³	1 10 ⁴	2 10 ⁸	2 10 ¹⁴	2 10 ¹¹
Re-184	5 10 ³	6 10 ³	1 10 ⁴	5 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Re-186m	5 10 ⁶	6 10 ²	6 10 ³	6 10 ⁷	2 10 ¹³	2 10 ¹⁰
Re-186	5 10 ³	9 10 ³	8 10 ³	6 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Re-187	5 10 ⁶	6 10 ³	2 10 ⁶	4 10 ¹⁰	2 10 ¹⁵	2 10 ¹³
Re-188m	5 10 ⁶	6 10 ³	4 10 ⁵	3 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Re-188	5 10 ³	1 10 ⁴	7 10 ³	6 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Re-189	5 10 ³	2 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Rhodium						
Rh-99m	5 10 ⁶	3 10 ⁵	8 10 ⁴	7 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Rh-99	5 10 ³	9 10 ³	1 10 ⁴	7 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Rh-100	5 10 ³	2 10 ⁴	7 10 ³	6 10 ⁸	2 10 ¹⁵	2 10 ¹⁰

1 Radionuclide name, symbol; isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b) (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1) (Bq)
		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
Rhodium (<i>continued</i>)						
Rh-101m	5 10 ⁵	3 10 ⁴	2 10 ⁴	2 10 ⁹	2 10 ¹⁵	2 10 ¹²
Rh-101	5 10 ⁵	6 10 ²	1 10 ⁴	6 10 ⁷	2 10 ¹³	2 10 ¹⁰
Rh-102m	5 10 ⁴	6 10 ²	6 10 ³	4 10 ⁷	2 10 ¹³	2 10 ¹⁰
Rh-102	5 10 ⁴	3 10 ²	2 10 ³	2 10 ⁷	2 10 ¹³	2 10 ¹⁰
Rh-103m	5 10 ⁶	6 10 ⁶	2 10 ⁶	2 10 ¹¹	2 10 ¹⁶	2 10 ¹⁴
Rh-105	5 10 ⁵	3 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Rh-106m	5 10 ⁶	1 10 ⁵	4 10 ⁴	3 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Rh-107	5 10 ⁶	1 10 ⁶	4 10 ⁵	3 10 ¹⁰	2 10 ¹⁵	2 10 ¹⁰
Rubidium						
Rb-79	5 10 ⁶	6 10 ⁵	1 10 ⁵	1 10 ¹⁰	2 10 ¹⁵	2 10 ¹⁰
Rb-81m	5 10 ⁶	2 10 ⁶	1 10 ⁶	9 10 ¹⁰	2 10 ¹⁵	2 10 ¹⁰
Rb-81	5 10 ⁶	2 10 ⁵	1 10 ⁵	1 10 ¹⁰	2 10 ¹⁵	2 10 ¹⁰
Rb-82m	5 10 ⁶	9 10 ⁴	5 10 ⁴	4 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Rb-83	5 10 ⁵	6 10 ³	2 10 ³	2 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Rb-84	5 10 ⁵	3 10 ³	2 10 ³	2 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Rb-86	5 10 ⁵	3 10 ³	2 10 ³	2 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Rb-87	5 10 ⁶	6 10 ³	5 10 ³	4 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Rb-88	5 10 ⁶	3 10 ⁵	8 10 ⁴	7 10 ⁹	2 10 ¹⁶	2 10 ¹⁰
Rb-89	5 10 ⁶	6 10 ⁵	1 10 ⁵	1 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰

1 Radionuclide name, symbol, isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b) (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1) (Bq)
		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
Ruthenium						
Ru-94	5 · 10 ⁶	2 · 10 ⁵	7 · 10 ⁴	6 · 10 ⁹	2 · 10 ¹⁶	2 · 10 ¹³
Ru-97	5 · 10 ⁵	6 · 10 ⁴	4 · 10 ⁴	3 · 10 ⁹	2 · 10 ¹⁵	2 · 10 ¹²
Ru-103 (Lung class Y)	5 · 10 ⁵	3 · 10 ³	8 · 10 ³	2 · 10 ⁸	2 · 10 ¹⁴	2 · 10 ¹⁰
Ru-103 (Lung class D)	5 · 10 ⁵	9 · 10 ³	8 · 10 ³	6 · 10 ⁸	2 · 10 ¹⁵	2 · 10 ¹⁰
Ru-103 (Lung class W)	5 · 10 ⁵	6 · 10 ³	8 · 10 ³	4 · 10 ⁸	2 · 10 ¹⁴	2 · 10 ¹⁰
Ru-105	5 · 10 ⁵	6 · 10 ⁴	2 · 10 ⁴	2 · 10 ⁹	2 · 10 ¹⁵	2 · 10 ¹⁰
Ru-106 (Lung class Y)	5 · 10 ⁴	6 · 10 ¹	8 · 10 ²	4 · 10 ⁶	2 · 10 ¹²	2 · 10 ⁹
Ru-106 (Lung class D)	5 · 10 ⁴	3 · 10 ²	8 · 10 ³	3 · 10 ⁷	2 · 10 ¹⁴	2 · 10 ¹⁰
Ru-106 (Lung class W)	5 · 10 ⁴	2 · 10 ²	8 · 10 ³	2 · 10 ⁷	2 · 10 ¹³	2 · 10 ¹⁰
Samarium						
Sm-141m	5 · 10 ⁶	6 · 10 ⁵	1 · 10 ⁵	1 · 10 ¹⁰	2 · 10 ¹⁶	2 · 10 ¹³
Sm-141	5 · 10 ⁶	9 · 10 ⁵	2 · 10 ⁵	2 · 10 ¹⁰	2 · 10 ¹⁷	2 · 10 ¹³
Sm-142	5 · 10 ⁶	1 · 10 ⁵	4 · 10 ⁴	3 · 10 ⁹	2 · 10 ¹⁶	2 · 10 ¹²
Sm-145	5 · 10 ⁵	2 · 10 ³	2 · 10 ⁴	2 · 10 ⁸	2 · 10 ¹⁴	2 · 10 ¹¹
Sm-146	5 · 10 ⁴	2 · 10 ⁻¹	6 · 10 ¹	1 · 10 ⁴	2 · 10 ¹⁰	2 · 10 ⁷
Sm-147	5 · 10 ⁶	2 · 10 ⁻¹	7 · 10 ¹	1 · 10 ⁴	2 · 10 ¹⁰	2 · 10 ⁹
Sm-151	5 · 10 ⁴	6 · 10 ²	6 · 10 ²	4 · 10 ⁷	2 · 10 ¹³	2 · 10 ¹⁰
Sm-153	5 · 10 ⁵	1 · 10 ⁴	7 · 10 ³	6 · 10 ⁸	2 · 10 ¹⁵	2 · 10 ¹⁰
Sm-155	5 · 10 ⁶	9 · 10 ⁵	2 · 10 ⁵	2 · 10 ¹⁰	2 · 10 ¹⁵	2 · 10 ¹⁰
Sm-156	5 · 10 ⁵	3 · 10 ⁴	2 · 10 ⁴	2 · 10 ⁹	2 · 10 ¹⁵	2 · 10 ¹⁰

1 Radionuclide name, symbol, isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b) (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1). (Bq)
		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
Scandium						
Sc-43	5 10 ⁶	1 10 ⁵	4 10 ⁴	3 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Sc-44m	5 10 ⁵	3 10 ³	2 10 ³	2 10 ⁸	2 10 ¹⁴	2 10 ¹¹
Sc-44	5 10 ⁵	6 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Sc-46	5 10 ⁵	1 10 ³	4 10 ³	9 10 ⁷	2 10 ¹⁴	2 10 ¹⁰
Sc-47	5 10 ⁵	2 10 ⁴	1 10 ⁴	8 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Sc-48	5 10 ⁵	6 10 ³	4 10 ³	3 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Sc-49	5 10 ⁶	2 10 ⁵	1 10 ⁵	8 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Selenium						
Se-70	5 10 ⁶	2 10 ⁵	5 10 ⁴	4 10 ⁹	2 10 ¹⁶	2 10 ¹²
Se-73m	5 10 ⁶	6 10 ⁵	1 10 ⁵	1 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Se-73	5 10 ⁵	6 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Se-75	5 10 ⁵	3 10 ³	2 10 ³	2 10 ⁸	2 10 ¹³	2 10 ¹¹
Se-79	5 10 ⁵	3 10 ³	2 10 ³	2 10 ⁸	2 10 ¹⁴	2 10 ¹¹
Se-81m	5 10 ⁶	3 10 ⁵	1 10 ⁵	9 10 ⁹	2 10 ¹⁶	2 10 ¹³
Se-81	5 10 ⁶	9 10 ⁵	2 10 ⁵	2 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Se-83	5 10 ⁶	6 10 ⁵	1 10 ⁶	1 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Silicon						
Si-31	5 10 ⁶	1 10 ⁵	4 10 ⁴	3 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Si-32	5 10 ⁴	2 10 ⁴	1 10 ⁴	2 10 ⁶	2 10 ¹²	2 10 ⁹

1 Radionuclide name, symbol, isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b) (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1) (Bq)
		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
Silver						
Ag-102	5 10 ⁶	9 10 ⁵	2 10 ⁵	2 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Ag-103	5 10 ⁶	6 10 ⁵	1 10 ⁵	1 10 ¹⁰	2 10 ¹⁵	2 10 ¹⁰
Ag-104m	5 10 ⁶	3 10 ⁵	1 10 ⁵	1 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Ag-104	5 10 ⁶	3 10 ⁵	1 10 ⁵	8 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Ag-105	5 10 ⁵	6 10 ³	1 10 ⁴	4 10 ⁸	2 10 ¹⁴	2 10 ¹¹
Ag-106m	5 10 ⁵	3 10 ³	4 10 ³	3 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Ag-106	5 10 ⁶	9 10 ⁵	2 10 ⁵	2 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Ag-108m	5 10 ⁴	1 10 ²	2 10 ³	9 10 ⁶	2 10 ¹³	2 10 ⁹
Ag-110m	5 10 ⁴	3 10 ²	2 10 ³	3 10 ⁷	2 10 ¹¹	2 10 ¹⁰
Ag-111	5 10 ⁵	3 10 ³	4 10 ³	3 10 ⁸	2 10 ¹⁴	2 10 ¹⁰
Ag-112	5 10 ⁵	3 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Ag-115	5 10 ⁶	3 10 ⁵	1 10 ⁵	1 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Sodium						
Na-22	5 10 ⁵	3 10 ³	2 10 ³	2 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Na-24	5 10 ⁵	2 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Strontium						
Sr-80	5 10 ⁶	9 10 ⁶	5 10 ⁶	4 10 ¹¹	2 10 ¹⁶	2 10 ¹⁴
Sr-81	5 10 ⁶	3 10 ⁵	1 10 ⁵	9 10 ⁹	2 10 ¹⁶	2 10 ¹⁰
Sr-83	5 10 ⁵	2 10 ⁴	1 10 ⁴	8 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Sr-85m	5 10 ⁶	3 10 ⁶	1 10 ⁶	8 10 ¹⁰	2 10 ¹⁶	2 10 ¹³

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		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
Strontium (continued)						
Sr-85	5 10 ⁵	6 10 ³	1 10 ⁴	6 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Sr-87m	5 10 ⁶	6 10 ⁵	1 10 ⁵	1 10 ¹⁰	2 10 ¹⁶	2 10 ¹³
Sr-89	5 10 ⁵	6 10 ²	2 10 ³	5 10 ⁷	2 10 ¹³	2 10 ¹⁰
Sr-90 (Lung class D)	5 10 ⁴	9 10 ¹	1 10 ²	7 10 ⁶	2 10 ¹³	2 10 ⁹
Sr-90 (Lung class Y)	5 10 ⁴	2 10 ¹	1 10 ²	1 10 ⁶	2 10 ¹²	2 10 ⁸
Sr-91	5 10 ⁵	2 10 ⁴	7 10 ³	6 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Sr-92	5 10 ⁵	3 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Sulphur						
S-35 (Lung class D)	5 10 ⁶	9 10 ⁴	2 10 ⁴	4 10 ⁹	2 10 ¹⁵	2 10 ¹¹
S-35 (Lung class W)	5 10 ⁶	9 10 ³	2 10 ⁴	8 10 ⁸	2 10 ¹⁵	2 10 ¹¹
S-35 (vapour)	5 10 ⁶	6 10 ⁴	n.a.	5 10 ⁹	2 10 ¹⁵	2 10 ¹¹
Tantalum						
Ta-172	5 10 ⁶	6 10 ⁵	1 10 ⁵	1 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Ta-173	5 10 ⁶	9 10 ⁴	2 10 ⁴	2 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Ta-174	5 10 ⁶	3 10 ⁵	1 10 ⁵	1 10 ¹⁰	2 10 ¹⁵	2 10 ¹⁰
Ta-175	5 10 ⁶	6 10 ⁴	2 10 ⁴	2 10 ⁹	2 10 ¹⁵	2 10 ¹²
Ta-176	5 10 ⁵	6 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹²
Ta-177	5 10 ⁶	9 10 ⁴	5 10 ⁴	4 10 ⁹	2 10 ¹⁵	2 10 ¹²
Ta-178	5 10 ⁶	3 10 ⁵	7 10 ⁴	6 10 ⁹	2 10 ¹⁶	2 10 ¹¹
Ta-179	5 10 ⁵	3 10 ³	1 10 ⁵	3 10 ⁸	2 10 ¹⁴	2 10 ¹¹
Ta-180m	5 10 ⁶	3 10 ⁵	1 10 ⁵	9 10 ⁹	2 10 ¹⁵	2 10 ¹⁰

1 Radionuclide name, symbol, isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b) (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1) (Bq)
		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
Tantalum (<i>continued</i>)						
Ta-180	5 10 ⁶	1 10 ²	7 10 ³	9 10 ⁶	2 10 ¹³	2 10 ⁹
Ta-182m	5 10 ⁶	2 10 ⁶	7 10 ³	6 10 ¹⁰	2 10 ¹⁷	2 10 ¹⁴
Ta-182	5 10 ⁵	6 10 ²	4 10 ³	5 10 ⁷	2 10 ¹³	2 10 ¹⁰
Ta-183	5 10 ⁵	6 10 ³	4 10 ³	3 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Ta-184	5 10 ⁵	2 10 ⁴	8 10 ³	7 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Ta-185	5 10 ⁶	3 10 ⁵	1 10 ³	1 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Ta-186	5 10 ⁶	9 10 ⁵	2 10 ³	2 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Technetium						
Tc-93m	5 10 ⁶	6 10 ⁵	4 10 ⁵	3 10 ¹⁰	2 10 ¹⁶	2 10 ¹²
Tc-93	5 10 ⁶	3 10 ⁵	1 10 ⁵	1 10 ¹⁰	2 10 ¹⁵	2 10 ¹⁰
Tc-94m	5 10 ⁶	2 10 ⁵	8 10 ⁴	7 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Tc-94	5 10 ⁶	9 10 ⁴	4 10 ⁴	3 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Tc-96m	5 10 ⁶	1 10 ⁶	7 10 ⁵	6 10 ¹⁰	2 10 ¹⁶	2 10 ¹¹
Tc-96	5 10 ⁵	9 10 ³	8 10 ³	7 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Tc-97m	5 10 ⁵	6 10 ³	2 10 ⁴	4 10 ⁸	2 10 ¹⁴	2 10 ¹¹
Tc-97	5 10 ⁶	3 10 ⁴	1 10 ⁵	2 10 ⁹	2 10 ¹⁵	2 10 ¹²
Tc-98	5 10 ⁶	2 10 ³	5 10 ³	1 10 ⁸	2 10 ¹⁴	2 10 ¹⁰
Tc-99m	5 10 ⁶	6 10 ⁵	4 10 ⁵	3 10 ¹⁰	2 10 ¹⁶	2 10 ¹³
Tc-99	5 10 ⁶	3 10 ³	1 10 ⁴	2 10 ⁸	2 10 ¹⁴	2 10 ¹⁰
Tc-101	5 10 ⁶	2 10 ⁶	4 10 ⁵	3 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Tc-104	5 10 ⁶	3 10 ⁵	1 10 ⁵	8 10 ⁹	2 10 ¹⁶	2 10 ¹⁰

1 Radionuclide name, symbol, isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b) (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1) (Bq)
		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
Tellurium						
Te-116	5 10 ⁶	9 10 ⁴	4 10 ⁴	3 10 ⁹	2 10 ¹⁶	2 10 ¹²
Te-121m	5 10 ⁵	9 10 ²	2 10 ³	7 10 ⁷	2 10 ¹⁴	2 10 ¹⁰
Te-121	5 10 ⁵	2 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹¹
Te-123m	5 10 ⁵	9 10 ²	2 10 ³	8 10 ⁷	2 10 ¹⁴	2 10 ¹⁰
Te-123	5 10 ⁶	9 10 ²	2 10 ³	7 10 ⁷	2 10 ¹⁴	2 10 ¹⁰
Te-125m	5 10 ⁵	2 10 ³	5 10 ³	2 10 ⁸	2 10 ¹⁴	2 10 ¹¹
Te-127m	5 10 ⁵	1 10 ³	2 10 ³	9 10 ⁷	2 10 ¹⁴	2 10 ¹⁰
Te-127	5 10 ⁶	9 10 ⁴	5 10 ⁴	3 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Te-129m	5 10 ⁵	1 10 ³	2 10 ³	9 10 ⁷	2 10 ¹⁴	2 10 ¹⁰
Te-129	5 10 ⁶	3 10 ⁵	1 10 ⁵	1 10 ¹⁰	2 10 ¹⁵	2 10 ¹⁰
Te-131m	5 10 ⁵	2 10 ³	1 10 ³	1 10 ⁸	2 10 ¹⁴	2 10 ¹⁰
Te-131	5 10 ⁵	2 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Te-132	5 10 ⁵	9 10 ²	1 10 ³	8 10 ⁷	2 10 ¹⁴	2 10 ¹⁰
Te-133m	5 10 ⁵	2 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Te-133	5 10 ⁶	1 10 ⁵	6 10 ⁴	5 10 ⁹	2 10 ¹⁶	2 10 ¹⁰
Te-134	5 10 ⁶	1 10 ⁵	7 10 ⁴	6 10 ⁹	2 10 ¹⁶	2 10 ¹²
Terbium						
Tb-147	5 10 ⁶	2 10 ⁵	4 10 ⁴	3 10 ⁹	2 10 ¹⁶	2 10 ¹²
Tb-149	5 10 ⁵	3 10 ³	2 10 ⁴	3 10 ⁸	2 10 ¹⁴	2 10 ¹⁰
Tb-150	5 10 ⁶	9 10 ⁴	2 10 ⁴	2 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Tb-151	5 10 ⁵	3 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹²
Tb-153	5 10 ⁵	3 10 ⁴	2 10 ⁴	2 10 ⁹	2 10 ¹⁵	2 10 ¹²

1 Radionuclide name, symbol, isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b) (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1) (Bq)
		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
Terbium (<i>continued</i>)						
Tb-154	5 10 ⁵	2 10 ⁴	7 10 ³	6 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Tb-155	5 10 ⁵	3 10 ⁴	2 10 ⁴	2 10 ⁹	2 10 ¹⁵	2 10 ¹²
Tb-156m (5.0 hr)	5 10 ⁶	1 10 ⁵	7 10 ⁴	6 10 ⁹	2 10 ¹⁶	2 10 ¹²
Tb-156m (24.4 hr)	5 10 ⁶	3 10 ⁴	4 10 ⁴	3 10 ⁹	2 10 ¹⁵	2 10 ¹²
Tb-156	5 10 ⁵	6 10 ³	5 10 ³	4 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Tb-157	5 10 ⁵	2 10 ³	2 10 ⁵	1 10 ⁸	2 10 ¹⁴	2 10 ¹⁰
Tb-158	5 10 ⁴	9 10 ⁴	6 10 ³	7 10 ⁶	2 10 ¹³	2 10 ⁹
Tb-160	5 10 ⁵	1 10 ³	4 10 ³	8 10 ⁷	2 10 ¹⁴	2 10 ¹⁰
Tb-161	5 10 ⁵	6 10 ³	7 10 ³	6 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Thallium						
Tl-194m	5 10 ⁶	6 10 ⁵	2 10 ⁵	2 10 ¹⁰	2 10 ¹⁶	2 10 ¹³
Tl-194	5 10 ⁶	3 10 ⁶	1 10 ⁶	9 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁴
Tl-195	5 10 ⁶	6 10 ⁵	2 10 ⁵	2 10 ¹⁰	2 10 ¹⁵	2 10 ¹⁰
Tl-197	5 10 ⁶	6 10 ⁵	4 10 ⁵	3 10 ¹⁰	2 10 ¹⁶	2 10 ¹³
Tl-198m	5 10 ⁶	2 10 ⁵	1 10 ⁵	1 10 ¹⁰	2 10 ¹⁶	2 10 ¹³
Tl-198	5 10 ⁶	2 10 ⁵	8 10 ⁴	7 10 ⁹	2 10 ¹⁶	2 10 ¹²
Tl-199	5 10 ⁶	3 10 ⁵	2 10 ⁵	2 10 ¹⁰	2 10 ¹⁵	2 10 ¹³
Tl-200	5 10 ⁵	6 10 ⁴	4 10 ⁴	3 10 ⁹	2 10 ¹⁵	2 10 ¹²
Tl-201	5 10 ⁶	9 10 ⁴	7 10 ⁴	6 10 ⁹	2 10 ¹⁶	2 10 ¹²
Tl-202	5 10 ⁵	2 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹²
Tl-204	5 10 ⁵	9 10 ³	7 10 ³	6 10 ⁸	2 10 ¹⁵	2 10 ¹⁰

1 Radionuclide name, symbol, isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b) (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1) (Bq)
		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
Thorium						
Th-226	5 10 ⁵	6 10 ²	2 10 ⁴	5 10 ⁷	2 10 ¹³	2 10 ¹⁰
Th-227	5 10 ³	2 10 ⁰	6 10 ²	1 10 ⁵	2 10 ¹¹	2 10 ⁷
Th-228	5 10 ³	6 10 ⁻²	2 10 ¹	4 10 ³	2 10 ⁹	2 10 ⁶
Th-229	5 10 ³	3 10 ⁻³	2 10 ⁰	3 10 ²	2 10 ⁹	2 10 ⁵
Th-230	5 10 ³	3 10 ⁻²	1 10 ¹	2 10 ³	2 10 ⁹	2 10 ⁶
Th-231	5 10 ⁵	3 10 ⁴	1 10 ⁴	1 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Th-232	5 10 ⁴	6 10 ⁻³	4 10 ⁰	4 10 ²	2 10 ⁸	2 10 ⁵
Th-234	5 10 ⁵	6 10 ²	1 10 ³	6 10 ⁷	2 10 ¹⁴	2 10 ¹⁰
Natural-Th (see Note 1)	5 10 ³	1 10 ⁻²	7 10 ⁰	7 10 ²	2 10 ⁸	2 10 ⁵
Thulium						
Tm-162	5 10 ⁶	1 10 ⁶	2 10 ⁵	2 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Tm-166	5 10 ⁶	6 10 ⁴	2 10 ⁴	2 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Tm-167	5 10 ⁵	9 10 ³	1 10 ⁴	7 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Tm-170	5 10 ⁵	9 10 ²	4 10 ³	8 10 ⁷	2 10 ¹⁴	2 10 ¹⁰
Tm-171	5 10 ⁵	1 10 ³	5 10 ⁴	1 10 ⁸	2 10 ¹⁴	2 10 ¹⁰
Tm-172	5 10 ⁵	6 10 ³	4 10 ³	3 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Tm-173	5 10 ⁵	6 10 ⁴	2 10 ⁴	2 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Tm-175	5 10 ⁶	1 10 ⁶	2 10 ⁵	2 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰

1 Radionuclide name, symbol, isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b) (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1) (Bq)
		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
Tin						
Sn-110	5 10 ⁵	6 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁶	2 10 ¹²
Sn-111	5 10 ⁶	9 10 ⁵	4 10 ⁵	3 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Sn-113	5 10 ⁵	3 10 ³	5 10 ³	2 10 ⁸	2 10 ¹⁴	2 10 ¹¹
Sn-117m	5 10 ⁵	6 10 ³	7 10 ³	5 10 ⁸	2 10 ¹⁴	2 10 ¹¹
Sn-119m	5 10 ⁵	6 10 ³	1 10 ⁴	4 10 ⁸	2 10 ¹⁴	2 10 ¹¹
Sn-121m	5 10 ⁵	2 10 ³	5 10 ³	2 10 ⁸	2 10 ¹⁴	2 10 ¹⁰
Sn-121	5 10 ⁵	6 10 ⁴	2 10 ⁴	2 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Sn-123m	5 10 ⁶	6 10 ⁵	2 10 ⁵	2 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Sn-123	5 10 ⁵	9 10 ²	2 10 ³	6 10 ⁷	2 10 ¹⁴	2 10 ¹⁰
Sn-125	5 10 ⁵	2 10 ³	1 10 ³	1 10 ⁸	2 10 ¹⁴	2 10 ¹⁰
Sn-126	5 10 ⁴	3 10 ²	1 10 ³	2 10 ⁷	2 10 ¹³	2 10 ¹⁰
Sn-127	5 10 ⁶	9 10 ⁴	4 10 ⁴	3 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Sn-128	5 10 ⁶	1 10 ⁵	5 10 ⁴	4 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Titanium						
Ti-44	5 10 ⁴	3 10 ¹	1 10 ³	2 10 ⁶	2 10 ¹²	2 10 ⁹
Ti-45	5 10 ⁶	1 10 ⁵	4 10 ⁴	3 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Tungsten						
W-176	5 10 ⁶	2 10 ⁵	5 10 ⁴	4 10 ⁹	2 10 ¹⁶	2 10 ¹³
W-177	5 10 ⁶	3 10 ⁵	1 10 ⁵	8 10 ⁹	2 10 ¹⁶	2 10 ¹³
W-178	5 10 ⁶	9 10 ⁴	2 10 ⁴	2 10 ⁹	2 10 ¹⁵	2 10 ¹¹

1 Radionuclide name, symbol, isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b) (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1) (Bq)
		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
Tungsten (<i>continued</i>)						
W-179	5 10 ⁶	9 10 ⁶	2 10 ⁶	2 10 ¹¹	2 10 ¹⁶	2 10 ¹⁴
W-181	5 10 ⁶	2 10 ⁵	7 10 ⁴	6 10 ⁹	2 10 ¹⁶	2 10 ¹²
W-185	5 10 ⁵	3 10 ⁴	1 10 ⁴	8 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
W-187	5 10 ⁵	3 10 ⁴	8 10 ³	7 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
W-188	5 10 ⁵	6 10 ³	1 10 ³	1 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Uranium						
U-230	5 10 ³	1 10 ⁰	1 10 ¹	1 10 ⁵	2 10 ¹¹	2 10 ⁷
U-231	5 10 ³	2 10 ¹	2 10 ¹	2 10 ⁹	2 10 ¹⁵	2 10 ¹²
U-232 (Lung class D)	5 10 ³	9 10 ⁻¹	1 10 ¹	8 10 ⁴	2 10 ¹¹	2 10 ⁷
U-232 (Lung class W)	5 10 ³	2 10 ⁰	1 10 ¹	1 10 ⁵	2 10 ¹¹	2 10 ⁷
U-232 (Lung class Y)	5 10 ³	3 10 ⁻²	1 10 ¹	3 10 ³	2 10 ⁹	2 10 ⁶
U-233	5 10 ³	2 10 ⁻¹	5 10 ¹	1 10 ⁴	2 10 ¹⁰	2 10 ⁶
U-234 (Lung class D)	5 10 ³	6 10 ⁰	5 10 ¹	5 10 ⁵	2 10 ¹¹	2 10 ⁸
U-234 (Lung class W)	5 10 ³	3 10 ⁰	5 10 ¹	3 10 ⁵	2 10 ¹¹	2 10 ⁸
U-234 (Lung class Y)	5 10 ³	2 10 ⁻¹	5 10 ¹	1 10 ⁴	2 10 ¹⁰	2 10 ⁶
U-235 (Lung class D)	5 10 ⁶	6 10 ⁰	6 10 ¹	5 10 ⁵	2 10 ¹¹	2 10 ⁸
U-235 (Lung class W)	5 10 ⁶	3 10 ⁰	6 10 ¹	3 10 ⁵	2 10 ¹¹	2 10 ⁸
U-235 (Lung class Y)	5 10 ⁶	2 10 ⁻¹	6 10 ¹	2 10 ⁴	2 10 ¹⁰	2 10 ⁷
U-236 (Lung class D)	5 10 ⁴	6 10 ⁰	6 10 ¹	5 10 ⁵	2 10 ¹¹	2 10 ⁸
U-236 (Lung class W)	5 10 ⁴	3 10 ⁰	6 10 ¹	3 10 ⁵	2 10 ¹¹	2 10 ⁸
U-236 (Lung class Y)	5 10 ⁴	2 10 ⁻¹	6 10 ¹	1 10 ⁴	2 10 ¹⁰	2 10 ⁶
U-237	5 10 ⁵	6 10 ³	7 10 ³	6 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
U-238 (Lung class D)	5 10 ⁶	6 10 ⁰	6 10 ¹	5 10 ⁵	2 10 ¹¹	2 10 ⁸

1 Radionuclide name, symbol, isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b) (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1) (Bq)
		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
Uranium (continued)						
U-238 (Lung class W)	5 10 ⁶	3 10 ⁰	6 10 ¹	3 10 ⁵	2 10 ¹¹	2 10 ⁸
U-238 (Lung class Y)	5 10 ⁶	2 10 ⁻¹	6 10 ¹	2 10 ⁴	2 10 ¹⁰	2 10 ⁷
U-239	5 10 ⁵	6 10 ⁵	2 10 ⁵	2 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
U-240	5 10 ⁵	1 10 ⁴	6 10 ³	5 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Depleted-U (Lung class D)	5 10 ⁶	6 10 ⁰	6 10 ¹	5 10 ⁵	2 10 ¹¹	2 10 ⁸
Depleted-U (Lung class W)	5 10 ⁶	3 10 ⁰	6 10 ¹	3 10 ⁵	2 10 ¹¹	2 10 ⁸
Depleted-U (Lung class Y)	5 10 ⁶	2 10 ⁻¹	6 10 ¹	2 10 ⁴	2 10 ¹⁰	2 10 ⁷
Natural-U (Lung class D) (see Note 2)	5 10 ⁶	6 10 ⁰	5 10 ¹	5 10 ⁵	2 10 ¹¹	2 10 ⁸
Natural-U (Lung class W) (see Note 2)	5 10 ⁶	3 10 ⁰	5 10 ¹	3 10 ⁵	2 10 ¹¹	2 10 ⁸
Natural-U (Lung class Y) (see Note 2)	5 10 ⁶	2 10 ⁻¹	5 10 ¹	1 10 ⁴	2 10 ¹⁰	2 10 ⁷
5% enriched-U (Lung Class D)	5 10 ⁵	6 10 ⁰	5 10 ¹	5 10 ⁵	2 10 ¹¹	2 10 ⁸
5% enriched-U (Lung class W)	5 10 ⁵	3 10 ⁰	5 10 ¹	3 10 ⁵	2 10 ¹¹	2 10 ⁸
5% enriched-U (Lung class Y)	5 10 ⁵	2 10 ⁻¹	5 10 ¹	1 10 ⁴	2 10 ¹⁰	2 10 ⁶

1 Radionuclide name, symbol, isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b) (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1) (Bq)
		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
Uranium (continued)						
20% enriched-U (Lung class D)	5 10 ⁴	6 10 ⁰	5 10 ¹	5 10 ⁵	2 10 ¹¹	2 10 ⁸
20% enriched-U (Lung class W)	5 10 ⁴	3 10 ⁰	5 10 ¹	3 10 ⁵	2 10 ¹¹	2 10 ⁸
20% enriched-U (Lung class Y)	5 10 ⁴	2 10 ⁻¹	5 10 ¹	1 10 ⁴	2 10 ¹⁰	2 10 ⁶
Vanadium						
V-47	5 10 ⁶	3 10 ⁵	1 10 ⁵	1 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
V-48	5 10 ⁵	3 10 ³	2 10 ³	2 10 ⁸	2 10 ¹⁴	2 10 ¹⁰
V-49	5 10 ⁶	9 10 ⁴	4 10 ⁵	7 10 ⁹	2 10 ¹⁶	2 10 ¹²
Xenon						
Xe-120	5 10 ⁶	6 10 ⁶	n.a.	5 10 ¹¹	2 10 ¹⁷	2 10 ¹⁴
Xe-121	5 10 ⁵	6 10 ⁵	n.a.	5 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁴
Xe-122	5 10 ⁶	3 10 ⁷	n.a.	2 10 ¹²	2 10 ¹⁷	2 10 ¹⁴
Xe-123	5 10 ⁵	2 10 ⁶	n.a.	1 10 ¹¹	2 10 ¹⁶	2 10 ¹⁴
Xe-125	5 10 ⁶	6 10 ⁶	n.a.	5 10 ¹¹	2 10 ¹⁷	2 10 ¹⁴
Xe-127	5 10 ⁶	6 10 ⁶	n.a.	5 10 ¹¹	2 10 ¹⁷	2 10 ¹³
Xe-129m	5 10 ⁶	3 10 ⁶	n.a.	2 10 ¹¹	2 10 ¹⁷	2 10 ¹⁴
Xe-131m	5 10 ⁶	6 10 ⁶	n.a.	5 10 ¹¹	2 10 ¹⁷	2 10 ¹⁴
Xe-133m	5 10 ⁶	2 10 ⁶	n.a.	2 10 ¹¹	2 10 ¹⁷	2 10 ¹⁴

1 Radionuclide name, symbol, isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b) (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1) (Bq)
		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
<i>Xenon (continued)</i>						
Xe-133	5 10 ⁶	6 10 ⁶	n.a.	5 10 ¹¹	2 10 ²⁰	2 10 ¹⁴
Xe-135m	5 10 ⁶	3 10 ⁶	n.a.	2 10 ¹¹	2 10 ¹⁷	2 10 ¹⁴
Xe-135	5 10 ⁶	1 10 ⁶	n.a.	1 10 ¹¹	2 10 ¹⁶	2 10 ¹³
Xe-138	5 10 ⁶	6 10 ⁶	n.a.	5 10 ¹¹	2 10 ¹⁶	2 10 ¹⁴
<i>Ytterbium</i>						
Yb-162	5 10 ⁶	1 10 ⁶	4 10 ⁵	3 10 ¹⁰	2 10 ¹⁷	2 10 ¹³
Yb-166	5 10 ⁶	9 10 ³	6 10 ³	5 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Yb-167	5 10 ⁶	3 10 ⁶	1 10 ⁶	1 10 ¹¹	2 10 ¹⁷	2 10 ¹⁴
Yb-169	5 10 ⁶	3 10 ³	8 10 ³	3 10 ⁸	2 10 ¹⁴	2 10 ¹¹
Yb-175	5 10 ⁶	2 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Yb-177	5 10 ⁶	2 10 ⁵	7 10 ⁴	6 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Yb-178	5 10 ⁶	2 10 ⁵	6 10 ⁴	5 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
<i>Yttrium</i>						
Y-86m	5 10 ⁶	2 10 ⁵	1 10 ⁵	8 10 ⁹	2 10 ¹⁶	2 10 ¹³
Y-86	5 10 ⁶	2 10 ⁴	6 10 ³	5 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Y-87	5 10 ⁶	2 10 ⁴	1 10 ⁴	8 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Y-88	5 10 ⁶	1 10 ³	5 10 ³	9 10 ⁷	2 10 ¹⁴	2 10 ¹⁰
Y-90m	5 10 ⁶	6 10 ⁴	4 10 ⁴	3 10 ⁹	2 10 ¹⁶	2 10 ¹²
Y-90	5 10 ⁶	3 10 ³	2 10 ³	2 10 ⁸	2 10 ¹⁴	2 10 ¹⁰

1 Radionuclide name, symbol, isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b) (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1) (Bq)
		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
Yttrium (continued)						
Y-91m	5 10 ⁶	6 10 ⁵	6 10 ⁵	5 10 ¹⁰	2 10 ¹⁶	2 10 ¹³
Y-91	5 10 ⁴	6 10 ²	2 10 ³	4 10 ⁷	2 10 ¹³	2 10 ¹⁰
Y-92	5 10 ⁵	3 10 ⁴	1 10 ⁴	1 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Y-93	5 10 ⁵	1 10 ⁴	5 10 ³	4 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Y-94	5 10 ⁶	3 10 ⁵	1 10 ⁵	8 10 ⁹	2 10 ¹⁶	2 10 ¹⁰
Y-95	5 10 ⁶	6 10 ⁵	1 10 ⁵	1 10 ¹⁰	2 10 ¹⁶	2 10 ¹⁰
Zinc						
Zn-62	5 10 ⁵	1 10 ⁴	6 10 ³	5 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Zn-63	5 10 ⁶	3 10 ⁵	1 10 ⁵	9 10 ⁹	2 10 ¹⁶	2 10 ¹⁰
Zn-65	5 10 ⁵	1 10 ³	1 10 ³	1 10 ⁸	2 10 ¹³	2 10 ¹⁰
Zn-69m	5 10 ⁵	3 10 ⁴	2 10 ⁴	2 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Zn-69	5 10 ⁶	6 10 ⁵	2 10 ⁵	2 10 ¹⁰	2 10 ¹⁵	2 10 ¹⁰
Zn-71m	5 10 ⁶	9 10 ⁴	2 10 ⁴	2 10 ⁹	2 10 ¹⁵	2 10 ¹⁰
Zn-72	5 10 ⁵	6 10 ³	5 10 ³	4 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Zirconium						
Zr-86	5 10 ⁵	1 10 ⁴	6 10 ³	5 10 ⁸	2 10 ¹⁵	2 10 ¹¹
Zr-88	5 10 ⁵	9 10 ²	1 10 ⁴	8 10 ⁷	2 10 ¹⁴	2 10 ¹⁰
Zr-89	5 10 ⁵	1 10 ⁴	7 10 ³	6 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Zr-93	5 10 ⁴	3 10 ¹	6 10 ³	2 10 ⁶	2 10 ¹²	2 10 ⁹
Zr-95 (Lung class D)	5 10 ⁵	6 10 ²	6 10 ³	5 10 ⁷	2 10 ¹³	2 10 ¹⁰

1 Radionuclide name, symbol, isotope	2 Quantity for notification of work or loss. Regulation 31(2) and Schedule 3(b) (Bq)	For Controlled Areas (Internal Radiation)			6 Quantity for assessment and report. Regulations 26(1) and 27(5) and (6) and Schedule 7(e) (Bq)	7 Quantity for notification of occurrences. Regulation 31(1) (Bq)
		3 Air concentration. Schedule 6(6) (Bq m ⁻³)	4 Surface contamination. Schedule 6(6) (Bq cm ⁻²)	5 Total activity. Schedule 6(6) (Bq)		
Zirconium (<i>continued</i>)						
Zr-95 (Lung class W)	5 10 ⁵	2 10 ³	6 10 ³	1 10 ⁸	2 10 ¹⁴	2 10 ¹⁰
Zr-95 (Lung class Y)	5 10 ⁵	1 10 ³	6 10 ³	1 10 ⁸	2 10 ¹⁴	2 10 ¹⁰
Zr-97	5 10 ⁵	6 10 ³	2 10 ³	2 10 ⁸	2 10 ¹⁵	2 10 ¹⁰
Other radionuclides not listed above (see Note 3)	5 10 ³	2 10 ⁻³	4 10 ⁻¹	2 10 ²	2 10 ⁸	2 10 ⁵

Note 1: One becquerel of natural thorium corresponds to one alpha disintegration per second (dps) (0.5 dps of Th-232 and 0.5 dps of Th-228).

Note 2: One becquerel of natural uranium corresponds to one alpha disintegration per second (dps) (0.489 dps of U-238, 0.489 dps of U-234 and 0.022 dps of U-235).

Note 3: In the case of radionuclides not specified elsewhere in this Part, the quantities specified in this entry are to be used unless the Department has approved some other quantity for that radionuclide.

PART II

Quantity ratios for more than one radionuclide

1. For the purposes of regulation 2(5), the quantity ratio for more than one radionuclide is the sum of the quotients of the quantity of a radionuclide present, Q_p , divided by the quantity of that nuclide specified in the appropriate column of Part I of this Schedule, Q_{lim} , namely—

$$\sum \frac{Q_p}{Q_{lim}}$$

2. In any case where the isotopic composition of a radioactive substance is not known or is only partially known, the quantity ratio for that substance shall be calculated by using the values specified in the appropriate column in Part I for "Other radionuclides not listed above" for any radionuclide that has not been identified or where the quantity of a radionuclide is uncertain, unless the employer can show that the use of some other value is appropriate in the circumstances of a particular case, when he may use that value.

SCHEDULE 3 Regulations 5(1), 10(6) and 11(3)

WORK NOT REQUIRED TO BE NOTIFIED UNDER REGULATION 5(2)

Work with ionising radiation shall not be required to be notified in accordance with regulation 5(2) when the only such work being carried out is in one or more of the following categories where—

- (a) no radioactive substance having an activity concentration of more than 100 Bqg^{-1} is involved;
- (b) the quantity of radioactive substance does not exceed the quantity specified in column 2 of Schedule 2;
- (c) timepieces and instruments containing or bearing radioluminescent paint are kept or used and where effective means are taken to prevent contact with or leakage of any radioactive substance;
- (d) articles containing or bearing radioluminescent paint are manufactured or repaired and where the only liquid radioluminescent paints (if any) at the premises where the work is carried on are paints containing less than the following quantities of the following radionuclides—
 - (i) 2 GBq of tritium, or
 - (ii) 100 MBq of promethium 147;
- (e) gas mantles containing compounds of thorium are stored or used;
- (f) a radiation generator is operated or used which does not under normal operating conditions cause a dose rate of more than $1 \mu\text{Svh}^{-1}$ at a distance of 100 mm from any accessible surface and is of a type approved by the Department for the purposes of this sub-paragraph;
- (g) an apparatus containing a radioactive substance is involved which does not under normal operating conditions cause a dose rate of more than $1 \mu\text{Svh}^{-1}$ at a distance of 100 mm from any accessible surface and is of a type approved by the Department for the purposes of this sub-paragraph;
- (h) the work involves the care of a person to whom a radioactive medicinal product (within the meaning of the Medicines (Administration of Radioactive Substances) Regulations (Northern Ireland) 1978(a)) has been administered; or
- (i) the work is carried out on a ship, aircraft, hovercraft or hydrofoil by members of its crew.

SCHEDULE 4

Regulations 5(2) and (8)
and 39(4) and Schedule 5

PARTICULARS TO BE SUPPLIED IN A NOTIFICATION UNDER REGULATION 5(2)

The following particulars shall be given in a notification under regulation 5(2)—

- (a) the name and address of the employer;
- (b) the address of the premises where or from where the work is being carried on;
- (c) the nature of the business of the employer;
- (d) into which of the following categories the source or sources of ionising radiation fall—
 - (i) sealed source,
 - (ii) unsealed radioactive substance,
 - (iii) radiation generator,
 - (iv) an atmosphere containing the short-lived daughters of radon 222;
- (e) whether or not any source is to be used at premises other than the address given at sub-paragraph (b); and
- (f) the dates of notification and commencement of work with ionising radiation.

SCHEDULE 5

Regulations 5(4) and (5)
and 39(4)

ADDITIONAL PARTICULARS THAT THE DEPARTMENT MAY REQUIRE

The following additional particulars may be required under regulation 5(4)—

- (a) a description of the work with ionising radiation;
- (b) particulars of the source or sources of ionising radiation including the type of radiation generator used or operated and the nature of any radioactive substance;
- (c) the quantities of any radioactive substance involved in the work;
- (d) the identity of any person engaged in the work;
- (e) the date of commencement and the length of any period during which the work is to be carried on;
- (f) the location and description of any premises at which the work is carried on on each occasion that it is so carried on;
- (g) the date of termination of the work;
- (h) further information on any of the particulars listed in Schedule 4.

SCHEDULE 6

Regulations 6(6), 8(1),
22 and 27(1)

DESIGNATION OF CONTROLLED AREAS

PART I

Designation in relation to external radiation

1. Subject to paragraphs 2 and 3, the employer shall designate as a controlled area any area in which the instantaneous dose rate exceeds, or is likely to exceed, $7.5 \mu\text{Svh}^{-1}$.

2. Subject to paragraph 4, the employer need not designate as a controlled area any area in which the instantaneous dose rate exceeds $7.5 \mu\text{Svh}^{-1}$ by reason only that a radioactive substance is in the area provided that—

- (a) where the radioactive substance is not dispersed in the live body or corpse of a human being—
 - (i) in the case of an emitter of gamma rays, the product of activity and total gamma energy per disintegration does not exceed 50 MBq MeV,
 - (ii) in the case of an emitter of beta particles having a maximum energy of 0.3 MeV or more, the activity does not exceed 5 MBq, and
 - (iii) in the case of an emitter of beta particles having a maximum energy of less than 0.3 MeV, the activity does not exceed 50 MBq;
- (b) where the radioactive substance is dispersed in the live body or corpse of a human being—
 - (i) the substance emits only beta particles, or
 - (ii) in the case of an emitter of gamma rays, the product of activity and total gamma energy per disintegration does not exceed 150 MBq MeV.

3. Subject to paragraphs 4 and 5, the employer need not designate as a controlled area any area in which the instantaneous dose rate exceeds $7.5 \mu\text{Svh}^{-1}$ but does not exceed 2mSvh^{-1} and where one of the following conditions is satisfied—

- (a) the time average dose rate does not exceed $7.5 \mu\text{Svh}^{-1}$;
- (b) only the hands of a person can enter any area in which the instantaneous dose rate exceeds $7.5 \mu\text{Svh}^{-1}$ and the time average dose rate in that area does not exceed $75 \mu\text{Svh}^{-1}$; or
- (c) the area is an area in which—
 - (i) the time average dose rate does not exceed $240 \mu\text{Svh}^{-1}$,
 - (ii) no one person remains for more than one hour in any working period of 8 hours, and
 - (iii) no person receives a dose exceeding $60 \mu\text{Sv}$ in any working period of 8 hours.

4. Notwithstanding paragraph 2 or 3, the employer shall designate as a controlled area any area to which either of those paragraphs applies unless, following consultation with his radiation protection adviser,—

- (a) he is satisfied and has taken suitable steps to ensure that any person entering any such area does not receive a dose of ionising radiation which exceeds three-tenths of any relevant dose limit as a result of entry into such areas; and
- (b) in a case where a time average dose rate is used, he can demonstrate that the basis on which it is calculated is sufficient to justify its use.

5. Notwithstanding paragraph 3, the employer shall designate as a controlled area any area in which the instantaneous dose rate exceeds $7.5 \mu\text{Svh}^{-1}$ because site radiography is being carried out in that area, and in this paragraph "site radiography" means any radiography of inanimate objects other than that which is carried out in an enclosure or cabinet which restricts so far as reasonably practicable the exposure of persons to ionising radiation.

PART II

Designation in relation to internal radiation

6. The employer shall designate as a controlled area any area in which either—
- (a) the air concentration of a radionuclide when averaged over any 8 hour working period exceeds or is likely to exceed the concentration for that radionuclide specified in column 3 of Schedule 2; or
 - (b) the level of contamination of any surface by a radionuclide when determined by a suitable method exceeds, or is likely to exceed, the contamination level for that radionuclide specified in column 4 of Schedule 2 and, for the purposes of this sub-paragraph, contamination levels shall be determined by averaging—
 - (i) in the case of a floor, wall or ceiling, over an area not exceeding 1000 cm², or
 - (ii) in any other case, over an area not exceeding 300 cm²,

except that an area shall not be required to be designated as a controlled area if the only potential or actual source of contamination in the area is a radioactive substance present in the area and the total activity of the radionuclide in the area does not exceed the quantity for that radionuclide specified in column 5 of Schedule 2.

PART III

Designation in relation to external radiation and internal radiation together

7. Where in accordance with regulation 8(2) an area is required to be designated as a supervised area either—

- (a) in relation to both external and internal radiation; or
- (b) in relation to internal radiation by reason that both the air concentration and contamination level exceed one-third of the values specified in sub-paragraphs (a) and (b) of paragraph 6 respectively,

the employer shall designate that area as a controlled area.

PART IV

Designation in relation to the short-lived daughters of radon 222

8. In the case of the short-lived daughters of radon 222, the employer shall designate as a controlled area any area in which the concentration in air of the short-lived daughters when averaged over any 8 hour working period exceeds $2 \times 10^{-6} \text{Jm}^{-3}$ (~ 0.1 working levels).

SCHEDULE 7

Regulation 26(1),
(2) and (3)

PARTICULARS TO BE INCLUDED IN A REPORT OF AN ASSESSMENT

The following particulars are required to be included in a report of an assessment under regulation 26(1), (2) or (3)—

- (a) the name and address of the employer;
- (b) the postal address of the place where the radioactive substance will be processed, manufactured, used or stored, or where the facilities for processing, manufacture, use or storage exist or, in the case of transport, the postal address of the transport undertaking;
- (c) the date on which it is anticipated that the operation will commence or, if it has already commenced, a statement to that effect;
- (d) a general description of the premises or place except that in the case of transport a general description shall be given of either—
 - (i) the starting and end points of the journeys, the mode of transport and transhipment points, or
 - (ii) the criteria to be used for route selection;
- (e) a description of any radioactive substance which in any controlled area or other workplace is likely to exceed the quantity in column 6 of Schedule 2, which shall where practicable include details of the radionuclides present and their likely maximum quantities;
- (f) except in the case of an assessment relating to transport, a plan of the site in question and a map of the environs to a scale large enough to enable the site and any features which could affect the general risk in an emergency to be identified;
- (g) a diagram of any single plant or enclosed system containing more than the quantity of any radioactive substance specified in column 6 of Schedule 2 or, in the case of transport, the nature of the containment for the radioactive substance, the type of conveyance and the means of securing the load within or on the conveyance;
- (h) factors which could precipitate a major release of any radioactive substance and the measures to be taken to prevent or control such release and information showing the maximum quantity of radioactive substance which, in the event of a major failure of containment, would be released to the atmosphere;
- (i) factors which could precipitate a smaller but continuing release of any radioactive substance and the measures to be taken to prevent or control such releases;
- (j) factors which could give rise to an incident involving the initiation of an unintended self-sustaining nuclear chain reaction or the loss of control of an intended self-sustaining nuclear chain reaction and, in either case, the measures to be taken to prevent or control any such incident;
- (k) the management system and staffing arrangements by which the substance and procedures are controlled;
- (l) except in the case of an assessment relating to transport, information about the size and distribution of the population in the vicinity of premises to which the report relates.

SCHEDULE 8

Regulation 26(4)

FURTHER PARTICULARS THAT THE DEPARTMENT MAY REQUIRE

A further assessment and report may be required under regulation 26(4) in respect of the following matters—

- (a) the likely consequences of any hazard and the probability of its occurrence;
- (b) the number of persons whose health or safety might be affected by the hazard;
- (c) management systems and staffing arrangements by which any hazard is controlled;
- (d) safety systems and procedures for the control of any hazard;
- (e) the qualifications, experience and training of staff concerned;
- (f) design and operating documentation;
- (g) design and operation of containment and pressure systems;
- (h) protection of persons from the effects of loss of containment; and
- (i) procedures for reporting of and learning from accidents, occurrences and incidents.

SEALED SOURCES TO WHICH REGULATION 26 DOES NOT APPLY

1. Regulation 26 shall not apply to any sealed source which conforms to the specifications of either paragraph 2 or paragraph 3.

2. Where the sealed source consists of a radioactive substance in a massive solid form, the sealed source shall—

- (a) have one dimension of at least 5 mm;
- (b) not melt, sublime or ignite below 538°C;
- (c) not break or shatter if subjected to the percussion test specified in the “Regulations for the Safe Transport of Radioactive Materials” published by the International Atomic Energy Agency, as revised or re-issued from time to time;
- (d) not, during one week’s immersion in water at pH6-pH8 at 20°C with a maximum conductivity of 10 microsiemens per centimetre, dissolve or convert into reaction products to the extent of more than 50 µg per gram of the material; and
- (e) not, during one week’s exposure to air at 30°C, dissolve or convert into dispersible reaction products to the extent of more than 50 µg per gram of the material.

3. Where the sealed source consists of a radioactive substance enclosed in a capsule, that capsule shall—

- (a) comply with the requirements of sub-paragraphs (a) to (e) of paragraph 2 except that in sub-paragraph (b) of that paragraph 800°C shall be substituted for 538°C; and
- (b) comply with the requirements of the relevant tests given in the Regulations referred to in sub-paragraph (c) of paragraph 2.

SCHEDULE 10

Regulation 40(1) and (2)

REVOCATIONS AND MODIFICATIONS

PART I

REVOCATIONS

Column 1 <i>Regulations and Orders revoked</i>	Column 2 <i>Reference</i>	Column 3 <i>Extent of revocation</i>
The Ionising Radiations (Sealed Sources) Regulations (Northern Ireland) 1969	S.R. & O. (N.I.) 1969 No. 318.	The whole Regulations.
The Employment Medical Advisory Service (Factories Act Legislation Amendment) Regulations (Northern Ireland) 1979	S.R. 1979 No. 187.	In Part II of the Schedule, the entry relating to the Ionising Radiations (Sealed Sources) Regulations (Northern Ireland) 1969, S.R. & O. (N.I.) 1969 No. 318 (p. 1465).

PART II

MODIFICATIONS

Column 1 <i>Regulations modified</i>	Column 2 <i>Reference</i>	Column 3 <i>Extent of modification</i>
The Notification of Accidents and Dangerous Occurrences Regulations (Northern Ireland) 1981	S.R. 1981 No. 339.	In Schedule 2, there shall be inserted at the end of that Schedule a reference to the Ionising Radiations Regulations (Northern Ireland) 1985, S.R. 1985 No. 273.
The Notification of New Substances Regulations (Northern Ireland) 1985	S.R. 1985 No. 63	In sub-paragraph (d) of Article 3 for regulation 2 of the Ionising Radiations (Sealed Sources) Regulations (Northern Ireland) 1969 there shall be substituted regulation 2(1) of the Ionising Radiations Regulations (Northern Ireland) 1985, S.R. 1985 No. 273.

EXPLANATORY NOTE

(This note is not part of the Regulations.)

These Regulations implement in part as respects Northern Ireland the provisions of Council Directive 80/836/Euratom (O.J. No L246, 17.9.80, p. 1) amended by Council Directive 84/467/Euratom (O.J. No L265, 5.10.84, p. 4) laying down the basic safety standards for the health protection of the general public and workers against the dangers of ionising radiation.

The Regulations impose duties on employers to protect employees and other persons against ionising radiation arising from work with radioactive substances and other sources of ionising radiation and also impose certain duties on employees. The Regulations are divided into nine parts.

Part I (Interpretation and general — regulations 1 to 5)

In addition to defining the terms used in, and the scope of, the Regulations, employers (who for the purposes of these Regulations include self-employed persons) are, with certain exceptions, required to notify the Department of Economic Development ("The Department") of work with ionising radiation.

Part II (Dose limitation — regulations 6 and 7)

The regulations in this Part require every employer to take all necessary steps to restrict so far as is reasonably practicable the extent to which employees and other persons are exposed to ionising radiation, and impose limits (specified in Schedule 1) on the doses of ionising radiation which employees and other persons may receive in any calendar year.

Part III (Regulation of work with ionising radiation — regulations 8 to 12)

The regulations in this Part provide that areas in which persons are likely to receive more than specified doses of ionising radiation be designated as controlled areas or supervised areas and restrict entry into controlled areas to specified persons and circumstances. Employees who are likely to receive more than specified doses of ionising radiation are required to be designated as classified persons.

These regulations also require employers to appoint radiation protection advisers and supervisors, to make local rules for the conduct of work with ionising radiation, to ensure that such work is properly supervised and that adequate information, instruction and training is given to employees and other persons.

Part IV (Dosimetry and medical surveillance — regulations 13 to 17)

This Part requires that doses of ionising radiation received by classified and certain other specified persons are assessed by one or more dosimetry services approved by the Department and that records of such doses are made and kept for each person.

The regulations also require certain employees to be subject to medical surveillance and provide for the Department to require employers to make approved arrangements for the protection of the health of any individual employee.

Part V (Arrangements for the control of radioactive substances — regulations 18 to 23)

This Part requires that where a radioactive substance is used as a source of ionising radiation, it should, whenever reasonably practicable, be in the form of a

sealed source and that any articles embodying or containing radioactive substances are suitably designed, constructed, maintained and tested.

These regulations also cover the accounting for, keeping and transport of radioactive substances. They require in certain cases the provision of washing and changing facilities. They also require any respiratory protective equipment used in work with ionising radiation to be approved and all personal protective equipment to be regularly examined and properly maintained.

Part VI (Monitoring of ionising radiation — regulation 24)

This regulation requires radiation levels to be monitored in controlled and supervised areas and provides for the maintenance and testing of monitoring equipment.

Part VII (Assessments and notifications — regulations 25 to 31)

The regulations in this Part require every employer who undertakes work with ionising radiation to make an assessment of the hazards that are likely to arise from that work and, in cases where more than specified quantities of radioactive substances are involved in the work, to send a report of the assessment to the Department. The regulations require, in certain circumstances, employers to make contingency plans for dealing with foreseeable incidents.

The regulations require any cases in which an employee has received an overexposure to be investigated and notified to the Department and investigations to be made where employees are exposed above specified levels. They provide modified dose limits for employees who have received an overexposure.

The regulations also require that incidents in which more than specified quantities of radioactive substances escape or are lost or stolen be notified to the Department.

Part VIII (Safety of articles and equipment — regulations 32 to 34)

The regulations in this Part impose duties on manufacturers etc. and installers of articles for use in work with ionising radiation to ensure that such articles are designed, constructed and installed so as to restrict so far as is reasonably practicable exposure to ionising radiation. Similar duties are imposed on employers in relation to equipment used for medical exposures.

Employers are also required to investigate any defect in medical equipment which may have resulted in a person undergoing a medical exposure receiving a much greater dose of ionising radiation than was intended. The Department must be notified of any such incident.

Interference with any source of ionising radiation is prohibited.

Part IX (Miscellaneous and general — regulations 35 to 40)

These regulations provide for a defence on contravention of certain regulations and for exemptions to be granted by the Department. They provide for the payment of fees to the Department in respect of medical surveillance by an employment medical adviser or an appointed doctor. The regulations also contain transitional provisions and introduce modifications relating to the Ministry of Defence.

These regulations revoke the Ionising Radiations (Sealed Sources) Regulations (Northern Ireland) 1969. As a result a reference to the latter Regulations in Article 3(d) of the Notification of New Substances Regulations (Northern Ireland) 1985 has been replaced by a reference to these Regulations. A reference to these Regulations

has also been added to Schedule 2 to the Notification of Accidents and Dangerous Occurrences Regulations (Northern Ireland) 1981.

A person who contravenes the Regulations is guilty of an offence under Article 31 of the Health and Safety at Work (Northern Ireland) Order 1978 and is liable, on summary conviction, to a fine not exceeding £2,000, or on conviction on indictment to a fine.

Copies of the International Atomic Energy Agency Regulations for the Safe Transport of Radioactive Materials mentioned in regulation 26(5)(c) may be obtained from Her Majesty's Stationery Office.

1985 No. 274

This Order has been exempted from printing by the Statutory Rules (Northern Ireland) Order 1979. A summary is given in the List of Statutory Rules of a Local Character under the heading ROADS.