

**ISTITUTO SUPERIORE DI SANITÀ**

**Council Directive 98/83/EC on the quality of water  
intended for human consumption:  
calculation of derived activity concentrations**

Serena Risica and Sveva Grande  
*Laboratorio di Fisica*

ISSN 1123-3117

**Rapporti ISTISAN**

**00/16**

*Direttore dell'Istituto Superiore di Sanità  
e Responsabile scientifico: Giuseppe Benagiano*

*Direttore responsabile: Vilma Alberani*

*Stampato dal Servizio per le attività editoriali  
dell'Istituto Superiore di Sanità, Viale Regina Elena, 299 - 00161 ROMA*

*La riproduzione parziale o totale dei Rapporti e Congressi ISTISAN  
deve essere preventivamente autorizzata.*

*Reg. Stampa - Tribunale di Roma n. 131/88 del 1° marzo 1988*

*Roma, giugno 2000 (n. 2) 5° Suppl.*

*La responsabilità dei dati scientifici e tecnici  
pubblicati nei Rapporti e Congressi ISTISAN è dei singoli autori*

Istituto Superiore di Sanità

**Council Directive 98/83/EC on the quality of water intended for human consumption: calculation of derived activity concentrations.**

Serena Risica and Sveva Grande

2000, 47 p. Rapporti ISTISAN 00/16

In December 1998, a European Directive on drinking water was published. It is a revision of the 1980 directive on the same issue and for the first time regulates radioactivity, establishing a parametric value for tritium and for the Total Indicative Dose (TID). In order to draw up a proposal for an environmental monitoring plan to be published by the EU able to guarantee the level of protection required by the TID, the National Institute of Health (Istituto Superiore di Sanità) was requested to calculate the derived reference levels for ingestion for different age classes, using the dose coefficient of the 96/29 EURATOM Directive and certain annual intakes. This report presents the database obtained and some subsequent elaborations for health authorities and other personnel involved.

*Key words:* Derived reference levels, Drinking water, Radioactivity

Istituto Superiore di Sanità

**Direttiva del Consiglio 98/83/EC concernente la qualità delle acque destinate al consumo umano: calcolo dei livelli derivati di concentrazione.**

Serena Risica e Sveva Grande

2000, 47 p. Rapporti ISTISAN 00/16 (in inglese)

In dicembre 1998 è stata pubblicata una direttiva europea sulle acque potabili. Questa direttiva, revisione di quella del 1980, per la prima volta dà indicazioni anche sulla radioattività, fissando un valore parametrico per il trizio e uno per la Dose Totale Indicativa (DTI). Ai fini di proporre un piano di monitoraggio ambientale, di prossima pubblicazione da parte della UE, che garantisca il livello di protezione richiesto dalla DTI, è stato chiesto all'Istituto Superiore di Sanità di calcolare i livelli di riferimento derivati per ingestione per le diverse classi di età, utilizzando i coefficienti di dose della Direttiva EURATOM 96/29 e opportune ipotesi sui consumi annuali. Il rapporto offre alle autorità sanitarie e agli operatori del settore la base dati ottenuta e alcune elaborazioni successive.

*Parole chiave:* Acque potabili, Livelli di riferimento derivati, Radioattività

This report is available in Internet in PDF / Il rapporto è disponibile in Internet in formato PDF (<http://www.iss.it>).

This work was the object of a contract signed between the EU Commission and the Italian National Institute of Health (Istituto Superiore di Sanità): EU Contract No: 99-PR-05: Database with derived activity concentrations for all radionuclides listed in Annex III of the BSS (Directive 96/29 Euratom-Drinking Water).

## INTRODUCTION

In December 1998, the *Council Directive... on the quality of water intended for human consumption* (1) was published in the Official Journal of the European Union. It is a revision of the Council Directive of 1980 (2) on the same issue, and should be implemented by Member States within two years of entry into force of the Directive.

For the first time, on request of the European Parliament, the 1998 *Drinking Water Directive* also includes requirements for radioactivity. But contrary to what was proposed by the Parliament, the Commission decided not to make these requirements mandatory (in Annex I PART B), but only indicative (*indicator parameters* in Annex I PART C); that is, tritium is cited as an indicator parametric value of its concentration 100 Bq/l, and the *total indicative dose* (TID) as an indicator parametric value of 0.1 mSv/year. It is specified that the TID excludes tritium, potassium 40, radon and radon decay products.

It is worth noting that other parameters in Annex I PART C are indicators of a potentially broader problem, but do not imply a risk in their own right; radioactivity, on the other hand, does and dose, in particular, is an expression of risk. Therefore it may be concluded that both tritium concentration and TID should have a similar status, indicating a potential radiological problem when exceeded, and should not be regarded as limit values.

In a note to Annex I PART C, detailed requirements on monitoring frequencies, methods and locations are foreseen to be published by the Commission within 18 months after the Directive's entry into force. These requirements, not yet published, should suggest to Member States how to guarantee the required level of protection.

In order to draft the requirements, a working party of the Article 31 Group of Experts of the EURATOM Treaty (*Article 31 working party on radioactivity in drinking water*) was set up and worked in collaboration with a working party of the Article 36 group of experts. The former suggested that, with regard to the total indicative dose, it would be useful to prepare a database with derived activity concentrations for drinking water

ingestion (DWC) for all radionuclides listed in Table A of Annex III of the Basic Safety Standards (Directive 96/29/EURATOM) (3), for different age groups of members of the public, on the basis of the appropriate ingestion dose coefficients. The work was performed by the authors, under contract from the EU Commission, and this report presents the database obtained (see table 1), for possible uses by health authorities and environmental radioactivity monitoring laboratories.

Radionuclides in the table are listed with the Mendeleev classification, as in the 96/29 EURATOM Directive. In order to facilitate use of the table, however, an alphabetical list is given on page 7.

For each radionuclide, the critical value of concentration (*critical concentration*) (Bq/l) and the corresponding *critical age group* are also identified and reported in the last two columns. It can be noted that, except for Zr-93, I-129, Cs-134, Cs-135 and Cs-137, infants (< 1 year) and small children (1-2 year age group) are the population groups most at risk, notwithstanding the much lower annual intake.

## REFERENCES

1. COUNCIL DIRECTIVE 98/83/EC of 3 November 1998 on the quality of water intended for human consumption (O.J. L 330/32, 5.12.98)
2. COUNCIL DIRECTIVE 80/778/EEC of 15 July 1980 on the quality of water intended for human consumption (O.J. L 229/30, 30.8.80)
3. COUNCIL DIRECTIVE 96/29/Euratom of 13 May 1996 laying down basic safety standards for the protection of the health of the workers and the general public against the dangers arising from ionizing radiation (O.J. L 159, 29.6.96)

## CALCULATION METHODOLOGY

As cited above, DWC were calculated for all radionuclides listed in table A of Annex III of the Basic Safety Standards. They were evaluated using the values of committed effective dose per unit intake via ingestion (Sv/Bq) for members of the public at different age groups (g), reported in the same table A, and on the basis of the following annual intakes:

≤ 1 y old: 250 l/y

1-10 y old: 350 l/y

> 17 y old: 730 l/y

These intake values were chosen by the Article 31 working party on radioactivity in drinking water after an overview of different intake values used by different organisations, including the WHO.

Calculations were carried out for the age classes ≤ 1y, 1-2 y, 2-7 y, 7-10 y, and >17 y, whereas they were not for the age class 10-17 y, due to the lack of a defined intake.

The DWC were calculated using the following formula:

$$\text{DWC (Bq/l)} = \frac{1 * 10^{-4} \text{ (Sv/y)}}{\text{ann. intake value (l/y) * committed eff. dose per unit intake (Sv/Bq)}}$$

where  $1 * 10^{-4}$  Sv/y = 0.1 mSv/y is the Total Indicative Dose established in the *Council Directive... on the quality of water intended for human consumption* (1998).

These DWC were a base for suggesting a strategy for monitoring radioactivity in drinking water.

## MENDELEEV CLASSIFICATION OF RADIONUCLIDES

	Symbol	Page		Symbol	Page
Hydrogen	H	.....9	Rubidium	Rb	.....15
Beryllium	Be	.....9	Strontium	Sr	.....16
Carbon	C	.....9	Yttrium	Y	.....16
Fluorine	F	.....9	Zirconium	Zr	.....17
Sodium	Na	.....9	Niobium	Nb	.....17
Magnesium	Mg	.....9	Molybdenum	Mo	.....18
Aluminium	Al	.....9	Technetium	Tc	.....18
Silicon	Si	.....9	Ruthenium	Ru	.....19
Phosphorus	P	.....9	Rhodium	Rh	.....19
Sulphur	S	.....10	Palladium	Pd	.....20
Chlorine	Cl	.....10	Silver	Ag	.....20
Potassium	K	.....10	Cadmium	Cd	.....21
Calcium	Ca	.....10	Indium	In	.....21
Scandium	Sc	.....10	Tin	Sn	.....22
Titanium	Ti	.....11	Antimony	Sb	.....22
Vanadium	V	.....11	Tellurium	Te	.....23
Chromium	Cr	.....11	Iodine	I	.....24
Manganese	Mn	.....11	Caesium	Cs	.....25
Iron	Fe	.....12	Barium	Ba	.....25
Cobalt	Co	.....12	Lanthanum	La	.....26
Nickel	Ni	.....12	Cerium	Ce	.....26
Copper	Cu	.....13	Praseodymium	Pr	.....27
Zinc	Zn	.....13	Neodymium	Nd	.....27
Gallium	Ga	.....13	Promethium	Pm	.....28
Germanium	Ge	.....14	Samarium	Sm	.....28
Arsenic	As	.....14	Europium	Eu	.....29
Selenium	Se	.....14	Gadolinium	Gd	.....29
Bromine	Br	.....15	Terbium	Tb	.....30

	Symbol	Page		Symbol	Page
Dysprosium	Dy	.....31	Einsteinium	Es	.....47
Holmium	Ho	.....31	Fermium	Fm	.....47
Erbium	Er	.....31	Mendelevium	Md	.....47
Thulium	Tm	.....32			
Ytterbium	Yb	.....32			
Lutetium	Lu	.....32			
Hafnium	Hf	.....33			
Tantalum	Ta	.....34			
Tungsten	W	.....35			
Rhenium	Re	.....35			
Osmium	Os	.....36			
Iridium	Ir	.....36			
Platinum	Pt	.....37			
Gold	Au	.....37			
Mercury	Hg	.....38			
Thallium	Tl	.....39			
Lead	Pb	.....40			
Bismuth	Bi	.....40			
Polonium	Po	.....41			
Astatine	At	.....41			
Francium	Fr	.....41			
Radium	Ra	.....42			
Actinium	Ac	.....42			
Thorium	Th	.....42			
Protoactinium	Pa	.....43			
Uranium	U	.....43			
Neptunium	Np	.....44			
Plutonium	Pu	.....44			
Americium	Am	.....45			
Curium	Cm	.....45			
Berkelium	Bk	.....46			
Californium	Cf	.....46			

## ALPHABETICAL CLASSIFICATION OF RADIONUCLIDES

Actinium.....42	Europium.....29
Aluminium.....9	Fermium.....47
Americium.....45	Fluorine .....9
Antimony.....22	Francium.....41
Arsenic.....14	
Astatine .....41	Gadolinium.....29
	Gallium.....13
Barium.....25	Germanium.....14
Berkelium.....46	Gold.....37
Beryllium.....9	
Bismuth .....40	Hafnium.....33
Bromine.....15	Holmium.....31
	Hydrogen.....9
Cadmium.....21	
Caesium.....25	Indium.....21
Calcium .....10	Iodine.....24
Californium.....46	Iridium.....36
Carbon.....9	Iron.....12
Cerium.....26	
Chlorine.....10	Lanthanum.....26
Chromium.....11	Lead.....40
Cobalt.....12	Lutetium.....32
Copper.....13	
Curium.....45	Magnesium.....9
	Manganese.....11
Dysprosium.....31	Mendelevium.....47
	Mercury.....38
Einsteinium.....47	Molybdenum.....18
Erbium.....31	

Neodymium.....	27	Terbium.....	30
Neptunium.....	44	Thallium.....	39
Nickel.....	12	Thorium.....	42
Niobium.....	17	Thulium.....	32
		Tin.....	22
Osmium.....	36	Titanium.....	11
		Tungsten.....	35
Palladium.....	20		
Phosphorus.....	9	Uranium.....	43
Platinum.....	37		
Plutonium.....	44	Vanadium.....	11
Polonium.....	41		
Potassium.....	10	Ytterbium.....	32
Praseodymium.....	27	Yttrium.....	16
Promethium.....	28		
Protoactinium.....	43	Zinc.....	13
		Zirconium.....	17
Radium.....	42		
Rhenium.....	35		
Rhodium.....	19		
Rubidium.....	15		
Ruthenium.....	19		
Samarium.....	28		
Scandium.....	10		
Selenium.....	14		
Silicon.....	9		
Silver.....	20		
Sodium.....	9		
Strontium.....	16		
Sulphur.....	10		
Tantalum.....	34		
Technetium.....	18		
Tellurium.....	23		

**Table 1.** Derived activity concentration in drinking water for different radionuclides, and critical concentration and age.

NUCLIDE	Committed effective dose per unit intake via ingestion (h) for members of the public Sv/Bq							Derived activity concentration in water (DWC) Bq/l					Critical concentration Bq/l	Critical age y
	AGE (g)	≤ 1 y	AGE (g)	1-2 y	2-7 y	7-10 y	>17 y	≤ 1 y	1-2 y	2-7 y	7-10 y	>17 y		
	f <sub>1</sub> for g ≤1y	h(g)	f <sub>1</sub> for g > 1y	h(g)	h(g)	h(g)	h(g)	DWC	DWC	DWC	DWC	DWC		
<b>Hydrogen</b>														
Tritiated water	1.0E+00	6.4E-11	1.0E+00	4.8E-11	3.1E-11	2.3E-11	1.8E-11	6.3E+03	6.0E+03	9.2E+03	1.2E+04	7.6E+03	6.0E+03	1-2
OBT	1.0E+00	1.2E-10	1.0E+00	1.2E-10	7.3E-11	5.7E-11	4.2E-11	3.3E+03	2.4E+03	3.9E+03	5.0E+03	3.3E+03	2.4E+03	1-2
<b>Beryllium</b>														
Be-7	2.0E-02	1.8E-10	5.0E-03	1.3E-10	7.7E-11	5.3E-11	2.8E-11	2.2E+03	2.2E+03	3.7E+03	5.4E+03	4.9E+03	2.2E+03	1-2
Be-10	2.0E-02	1.4E-08	5.0E-03	8.0E-09	4.1E-09	2.4E-09	1.1E-09	2.9E+01	3.6E+01	7.0E+01	1.2E+02	1.2E+02	2.9E+01	≤ 1
<b>Carbon</b>														
C-11	1.0E+00	2.6E-10	1.0E+00	1.5E-10	7.3E-11	4.3E-11	2.4E-11	1.5E+03	1.9E+03	3.9E+03	6.6E+03	5.7E+03	1.5E+03	≤ 1
C-14	1.0E+00	1.4E-09	1.0E+00	1.6E-09	9.9E-10	8.0E-10	5.8E-10	2.9E+02	1.8E+02	2.9E+02	3.6E+02	2.4E+02	1.8E+02	1-2
<b>Fluorine</b>														
F-18	1.0E+00	5.2E-10	1.0E+00	3.0E-10	1.5E-10	9.1E-11	4.9E-11	7.7E+02	9.5E+02	1.9E+03	3.1E+03	2.8E+03	7.7E+02	≤ 1
<b>Sodium</b>														
Na-22	1.0E+00	2.1E-08	1.0E+00	1.5E-08	8.4E-09	5.5E-09	3.2E-09	1.9E+01	1.9E+01	3.4E+01	5.2E+01	4.3E+01	1.9E+01	≤ 1
Na-24	1.0E+00	3.5E-09	1.0E+00	2.3E-09	1.2E-09	7.7E-10	4.3E-10	1.1E+02	1.2E+02	2.4E+02	3.7E+02	3.2E+02	1.1E+02	≤ 1
<b>Magnesium</b>														
Mg-28	1.0E+00	1.2E-08	5.0E-01	1.4E-08	7.4E-09	4.5E-09	2.2E-09	3.3E+01	2.0E+01	3.9E+01	6.3E+01	6.2E+01	2.0E+01	1-2
<b>Aluminium</b>														
Al-26	2.0E-02	3.4E-08	1.0E-02	2.1E-08	1.1E-08	7.1E-09	3.5E-09	1.2E+01	1.4E+01	2.6E+01	4.0E+01	3.9E+01	1.2E+01	≤ 1
<b>Silicon</b>														
Si-31	2.0E-02	1.9E-09	1.0E-02	1.0E-09	5.1E-10	3.0E-10	1.6E-10	2.1E+02	2.9E+02	5.6E+02	9.5E+02	8.6E+02	2.1E+02	≤ 1
Si-32	2.0E-02	7.3E-09	1.0E-02	4.1E-09	2.0E-09	1.2E-09	5.6E-10	5.5E+01	7.0E+01	1.4E+02	2.4E+02	2.4E+02	5.5E+01	≤ 1
<b>Phosphorus</b>														
P-32	1.0E+00	3.1E-08	8.0E-01	1.9E-08	9.4E-09	5.3E-09	2.4E-09	1.3E+01	1.5E+01	3.0E+01	5.4E+01	5.7E+01	1.3E+01	≤ 1
P-33	1.0E+00	2.7E-09	8.0E-01	1.8E-09	9.1E-10	5.3E-10	2.4E-10	1.5E+02	1.6E+02	3.1E+02	5.4E+02	5.7E+02	1.5E+02	≤ 1

continue

Table 1. (continue)

NUCLIDE	Committed effective dose per unit intake via ingestion (h) for members of the public Sv/Bq							Derived activity concentration in water (DWC) Bq/l					Critical concentration Bq/l	Critical age y
	AGE (g)	≤ 1 y	AGE (g)	1-2 y	2-7 y	7-10 y	>17 y	≤ 1 y	1-2 y	2-7 y	7-10 y	>17 y		
	f <sub>1</sub> for g ≤1y	h(g)	f <sub>1</sub> for g > 1y	h(g)	h(g)	h(g)	h(g)	DWC	DWC	DWC	DWC	DWC		
<b>Sulphur</b>														
S-35 (inorg.)	1.0E+00	1.3E-09	1.0E+00	8.7E-10	4.4E-10	2.7E-10	1.3E-10	3.1E+02	3.3E+02	6.5E+02	1.1E+03	1.1E+03	3.1E+02	≤ 1
S-35 (org.)	1.0E+00	7.7E-09	1.0E+00	5.4E-09	2.7E-09	1.6E-09	7.7E-10	5.2E+01	5.3E+01	1.1E+02	1.8E+02	1.8E+02	5.2E+01	≤ 1
<b>Chlorine</b>														
Cl-36	1.0E+00	9.8E-09	1.0E+00	6.3E-09	3.2E-09	1.9E-09	9.3E-10	4.1E+01	4.5E+01	8.9E+01	1.5E+02	1.5E+02	4.1E+01	≤ 1
Cl-38	1.0E+00	1.4E-09	1.0E+00	7.7E-10	3.8E-10	2.2E-10	1.2E-10	2.9E+02	3.7E+02	7.5E+02	1.3E+03	1.1E+03	2.9E+02	≤ 1
Cl-39	1.0E+00	9.7E-10	1.0E+00	5.5E-10	2.7E-10	1.6E-10	8.5E-11	4.1E+02	5.2E+02	1.1E+03	1.8E+03	1.6E+03	4.1E+02	≤ 1
<b>Potassium</b>														
K-40	1.0E+00	6.2E-08	1.0E+00	4.2E-08	2.1E-08	1.3E-08	6.2E-09	6.5E+00	6.8E+00	1.4E+01	2.2E+01	2.2E+01	6.5E+00	≤ 1
K-42	1.0E+00	5.1E-09	1.0E+00	3.0E-09	1.5E-09	8.6E-10	4.3E-10	7.8E+01	9.5E+01	1.9E+02	3.3E+02	3.2E+02	7.8E+01	≤ 1
K-43	1.0E+00	2.3E-09	1.0E+00	1.4E-09	7.6E-10	4.7E-10	2.5E-10	1.7E+02	2.0E+02	3.8E+02	6.1E+02	5.5E+02	1.7E+02	≤ 1
K-44	1.0E+00	1.0E-09	1.0E+00	5.5E-10	2.7E-10	1.6E-10	8.4E-11	4.0E+02	5.2E+02	1.1E+03	1.8E+03	1.6E+03	4.0E+02	≤ 1
K-45	1.0E+00	6.2E-10	1.0E+00	3.5E-10	1.7E-10	9.9E-11	5.4E-11	6.5E+02	8.2E+02	1.7E+03	2.9E+03	2.5E+03	6.5E+02	≤ 1
<b>Calcium</b>														
Ca-41	6.0E-01	1.2E-09	3.0E-01	5.2E-10	3.9E-10	4.8E-10	1.9E-10	3.3E+02	5.5E+02	7.3E+02	6.0E+02	7.2E+02	3.3E+02	≤ 1
Ca-45	6.0E-01	1.1E-08	3.0E-01	4.9E-09	2.6E-09	1.8E-09	7.1E-10	3.6E+01	5.8E+01	1.1E+02	1.6E+02	1.9E+02	3.6E+01	≤ 1
Ca-47	6.0E-01	1.3E-08	3.0E-01	9.3E-09	4.9E-09	3.0E-09	1.6E-09	3.1E+01	3.1E+01	5.8E+01	9.5E+01	8.6E+01	3.1E+01	1-2
<b>Scandium</b>														
Sc-43	1.0E-03	1.8E-09	1.0E-04	1.2E-09	6.1E-10	3.7E-10	1.9E-10	2.2E+02	2.4E+02	4.7E+02	7.7E+02	7.2E+02	2.2E+02	≤ 1
Sc-44	1.0E-03	3.5E-09	1.0E-04	2.2E-09	1.2E-09	7.1E-10	3.5E-10	1.1E+02	1.3E+02	2.4E+02	4.0E+02	3.9E+02	1.1E+02	≤ 1
Sc-44m	1.0E-03	2.4E-08	1.0E-04	1.6E-08	8.3E-09	5.1E-09	2.4E-09	1.7E+01	1.8E+01	3.4E+01	5.6E+01	5.7E+01	1.7E+01	≤ 1
Sc-46	1.0E-03	1.1E-08	1.0E-04	7.9E-09	4.4E-09	2.9E-09	1.5E-09	3.6E+01	3.6E+01	6.5E+01	9.9E+01	9.1E+01	3.6E+01	1-2

continue

Table 1. (continue)

NUCLIDE	Committed effective dose per unit intake via ingestion (h) for members of the public Sv/Bq							Derived activity concentration in water (DWC) Bq/l					Critical concentration Bq/l	Critical age y
	AGE (g)	≤ 1 y	AGE (g)	1-2 y	2-7 y	7-10 y	>17 y	≤ 1 y	1-2 y	2-7 y	7-10 y	>17 y		
	f <sub>1</sub> for g ≤1y	h(g)	f <sub>1</sub> for g > 1y	h(g)	h(g)	h(g)	h(g)	DWC	DWC	DWC	DWC	DWC		
Sc-47	1.0E-03	6.1E-09	1.0E-04	3.9E-09	2.0E-09	1.2E-09	5.4E-10	6.6E+01	7.3E+01	1.4E+02	2.4E+02	2.5E+02	6.6E+01	≤ 1
Sc-48	1.0E-03	1.3E-08	1.0E-04	9.3E-09	5.1E-09	3.3E-09	1.7E-09	3.1E+01	3.1E+01	5.6E+01	8.7E+01	8.1E+01	3.1E+01	1-2
Sc-49	1.0E-03	1.0E-09	1.0E-04	5.7E-10	2.8E-10	1.6E-10	8.2E-11	4.0E+02	5.0E+02	1.0E+03	1.8E+03	1.7E+03	4.0E+02	≤ 1
<b>Titanium</b>														
Ti-44	2.0E-02	5.5E-08	1.0E-02	3.1E-08	1.7E-08	1.1E-08	5.8E-09	7.3E+00	9.2E+00	1.7E+01	2.6E+01	2.4E+01	7.3E+00	≤ 1
Ti-45	2.0E-02	1.6E-09	1.0E-02	9.8E-10	5.0E-10	3.1E-10	1.5E-10	2.5E+02	2.9E+02	5.7E+02	9.2E+02	9.1E+02	2.5E+02	≤ 1
<b>Vanadium</b>														
V-47	2.0E-02	7.3E-10	1.0E-02	4.1E-10	2.0E-10	1.2E-10	6.3E-11	5.5E+02	7.0E+02	1.4E+03	2.4E+03	2.2E+03	5.5E+02	≤ 1
V-48	2.0E-02	1.5E-08	1.0E-02	1.1E-08	5.9E-09	3.9E-09	2.0E-09	2.7E+01	2.6E+01	4.8E+01	7.3E+01	6.8E+01	2.6E+01	1-2
V-49	2.0E-02	2.2E-10	1.0E-02	1.4E-10	6.9E-11	4.0E-11	1.8E-11	1.8E+03	2.0E+03	4.1E+03	7.1E+03	7.6E+03	1.8E+03	≤ 1
<b>Chromium</b>														
Cr-48	2.0E-01	1.4E-09	1.0E-01	9.9E-10	5.7E-10	3.8E-10	2.0E-10	2.9E+02	2.9E+02	5.0E+02	7.5E+02	6.8E+02	2.9E+02	≤ 1
	2.0E-02	1.4E-09	1.0E-02	9.9E-10	5.7E-10	3.8E-10	2.0E-10	2.9E+02	2.9E+02	5.0E+02	7.5E+02	6.8E+02	2.9E+02	≤ 1
Cr-49	2.0E-01	6.8E-10	1.0E-01	3.9E-10	2.0E-10	1.1E-10	6.1E-11	5.9E+02	7.3E+02	1.4E+03	2.6E+03	2.2E+03	5.9E+02	≤ 1
	2.0E-02	6.8E-10	1.0E-02	3.9E-10	2.0E-10	1.1E-10	6.1E-11	5.9E+02	7.3E+02	1.4E+03	2.6E+03	2.2E+03	5.9E+02	≤ 1
Cr-51	2.0E-01	3.5E-10	1.0E-01	2.3E-10	1.2E-10	7.8E-11	3.8E-11	1.1E+03	1.2E+03	2.4E+03	3.7E+03	3.6E+03	1.1E+03	≤ 1
	2.0E-02	3.3E-10	1.0E-02	2.2E-10	1.2E-10	7.5E-11	3.7E-11	1.2E+03	1.3E+03	2.4E+03	3.8E+03	3.7E+03	1.2E+03	≤ 1
<b>Manganese</b>														
Mn-51	2.0E-01	1.1E-09	1.0E-01	6.1E-10	3.0E-10	1.8E-10	9.3E-11	3.6E+02	4.7E+02	9.5E+02	1.6E+03	1.5E+03	3.6E+02	≤ 1
Mn-52	2.0E-01	1.2E-08	1.0E-01	8.8E-09	5.1E-09	3.4E-09	1.8E-09	3.3E+01	3.2E+01	5.6E+01	8.4E+01	7.6E+01	3.2E+01	1-2
Mn-52m	2.0E-01	7.8E-10	1.0E-01	4.4E-10	2.2E-10	1.3E-10	6.9E-11	5.1E+02	6.5E+02	1.3E+03	2.2E+03	2.0E+03	5.1E+02	≤ 1
Mn-53	2.0E-01	4.1E-10	1.0E-01	2.2E-10	1.1E-10	6.5E-11	3.0E-11	9.8E+02	1.3E+03	2.6E+03	4.4E+03	4.6E+03	9.8E+02	≤ 1

continue

Table 1. (continue)

NUCLIDE	Committed effective dose per unit intake via ingestion (h) for members of the public							Derived activity concentration in water (DWC)					Critical concentration Bq/l	Critical age y
	Sv/Bq							Bq/l						
	AGE (g)	≤ 1 y	AGE (g)	1-2 y	2-7 y	7-10 y	>17 y	≤ 1 y	1-2 y	2-7 y	7-10 y	>17 y		
	$f_1$ for g ≤1y	h(g)	$f_1$ for g > 1y	h(g)	h(g)	h(g)	h(g)	DWC	DWC	DWC	DWC	DWC		
Mn-54	2.0E-01	5.4E-09	1.0E-01	3.1E-09	1.9E-09	1.3E-09	7.1E-10	7.4E+01	9.2E+01	1.5E+02	2.2E+02	1.9E+02	7.4E+01	≤ 1
Mn-56	2.0E-01	2.7E-09	1.0E-01	1.7E-09	8.5E-10	5.1E-10	2.5E-10	1.5E+02	1.7E+02	3.4E+02	5.6E+02	5.5E+02	1.5E+02	≤ 1
<b>Iron</b>														
Fe-52	6.0E-01	1.3E-08	1.0E-01	9.1E-09	4.6E-09	2.8E-09	1.4E-09	3.1E+01	3.1E+01	6.2E+01	1.0E+02	9.8E+01	3.1E+01	≤ 1
Fe-55	6.0E-01	7.6E-09	1.0E-01	2.4E-09	1.7E-09	1.1E-09	3.3E-10	5.3E+01	1.2E+02	1.7E+02	2.6E+02	4.2E+02	5.3E+01	≤ 1
Fe-59	6.0E-01	3.9E-08	1.0E-01	1.3E-08	7.5E-09	4.7E-09	1.8E-09	1.0E+01	2.2E+01	3.8E+01	6.1E+01	7.6E+01	1.0E+01	≤ 1
Fe-60	6.0E-01	7.9E-07	1.0E-01	2.7E-07	2.7E-07	2.5E-07	1.1E-07	5.1E-01	1.1E+00	1.1E+00	1.1E+00	1.2E+00	5.1E-01	≤ 1
<b>Cobalt</b>														
Co-55	6.0E-01	6.0E-09	1.0E-01	5.5E-09	2.9E-09	1.8E-09	1.0E-09	6.7E+01	5.2E+01	9.9E+01	1.6E+02	1.4E+02	5.2E+01	1-2
Co-56	6.0E-01	2.5E-08	1.0E-01	1.5E-08	8.8E-09	5.8E-09	2.5E-09	1.6E+01	1.9E+01	3.2E+01	4.9E+01	5.5E+01	1.6E+01	≤ 1
Co-57	6.0E-01	2.9E-09	1.0E-01	1.6E-09	8.9E-10	5.8E-10	2.1E-10	1.4E+02	1.8E+02	3.2E+02	4.9E+02	6.5E+02	1.4E+02	≤ 1
Co-58	6.0E-01	7.3E-09	1.0E-01	4.4E-09	2.6E-09	1.7E-09	7.4E-10	5.5E+01	6.5E+01	1.1E+02	1.7E+02	1.9E+02	5.5E+01	≤ 1
Co-58m	6.0E-01	2.0E-10	1.0E-01	1.5E-10	7.8E-11	4.7E-11	2.4E-11	2.0E+03	1.9E+03	3.7E+03	6.1E+03	5.7E+03	1.9E+03	1-2
Co-60	6.0E-01	5.4E-08	1.0E-01	2.7E-08	1.7E-08	1.1E-08	3.4E-09	7.4E+00	1.1E+01	1.7E+01	2.6E+01	4.0E+01	7.4E+00	≤ 1
Co-60m	6.0E-01	2.2E-11	1.0E-01	1.2E-11	5.7E-12	3.2E-12	1.7E-12	1.8E+04	2.4E+04	5.0E+04	8.9E+04	8.1E+04	1.8E+04	≤ 1
Co-61	6.0E-01	8.2E-10	1.0E-01	5.1E-10	2.5E-10	1.4E-10	7.4E-11	4.9E+02	5.6E+02	1.1E+03	2.0E+03	1.9E+03	4.9E+02	≤ 1
Co-62m	6.0E-01	5.3E-10	1.0E-01	3.0E-10	1.5E-10	8.7E-11	4.7E-11	7.5E+02	9.5E+02	1.9E+03	3.3E+03	2.9E+03	7.5E+02	≤ 1
<b>Nickel</b>														
Ni-56	1.0E-01	5.3E-09	5.0E-02	4.0E-09	2.3E-09	1.6E-09	8.6E-10	7.5E+01	7.1E+01	1.2E+02	1.8E+02	1.6E+02	7.1E+01	1-2
Ni-57	1.0E-01	6.8E-09	5.0E-02	4.9E-09	2.7E-09	1.7E-09	8.7E-10	5.9E+01	5.8E+01	1.1E+02	1.7E+02	1.6E+02	5.8E+01	1-2
Ni-59	1.0E-01	6.4E-10	5.0E-02	3.4E-10	1.9E-10	1.1E-10	6.3E-11	6.3E+02	8.4E+02	1.5E+03	2.6E+03	2.2E+03	6.3E+02	≤ 1
Ni-63	1.0E-01	1.6E-09	5.0E-02	8.4E-10	4.6E-10	2.8E-10	1.5E-10	2.5E+02	3.4E+02	6.2E+02	1.0E+03	9.1E+02	2.5E+02	≤ 1

continue

Table 1. (continue)

NUCLIDE	Committed effective dose per unit intake via ingestion (h) for members of the public Sv/Bq							Derived activity concentration in water (DWC) Bq/l					Critical concentration Bq/l	Critical age y
	AGE (g)	≤ 1 y	AGE (g)	1-2 y	2-7 y	7-10 y	>17 y	≤ 1 y	1-2 y	2-7 y	7-10 y	>17 y		
	f <sub>1</sub> for g ≤1y	h(g)	f <sub>1</sub> for g > 1y	h(g)	h(g)	h(g)	h(g)	DWC	DWC	DWC	DWC	DWC		
Ni-65	1.0E-01	2.1E-09	5.0E-02	1.3E-09	6.3E-10	3.8E-10	1.8E-10	1.9E+02	2.2E+02	4.5E+02	7.5E+02	7.6E+02	1.9E+02	≤ 1
Ni-66	1.0E-01	3.3E-08	5.0E-02	2.2E-08	1.1E-08	6.6E-09	3.0E-09	1.2E+01	1.3E+01	2.6E+01	4.3E+01	4.6E+01	1.2E+01	≤ 1
<b>Copper</b>														
Cu-60	1.0E+00	7.0E-10	5.0E-01	4.2E-10	2.2E-10	1.3E-10	7.0E-11	5.7E+02	6.8E+02	1.3E+03	2.2E+03	2.0E+03	5.7E+02	≤ 1
Cu-61	1.0E+00	7.1E-10	5.0E-01	7.5E-10	3.9E-10	2.3E-10	1.2E-10	5.6E+02	3.8E+02	7.3E+02	1.2E+03	1.1E+03	3.8E+02	1-2
Cu-64	1.0E+00	5.2E-10	5.0E-01	8.3E-10	4.2E-10	2.5E-10	1.2E-10	7.7E+02	3.4E+02	6.8E+02	1.1E+03	1.1E+03	3.4E+02	1-2
Cu-67	1.0E+00	2.1E-09	5.0E-01	2.4E-09	1.2E-09	7.2E-10	3.4E-10	1.9E+02	1.2E+02	2.4E+02	4.0E+02	4.0E+02	1.2E+02	1-2
<b>Zinc</b>														
Zn-62	1.0E+00	4.2E-09	5.0E-01	6.5E-09	3.3E-09	2.0E-09	9.4E-10	9.5E+01	4.4E+01	8.7E+01	1.4E+02	1.5E+02	4.4E+01	1-2
Zn-63	1.0E+00	8.7E-10	5.0E-01	5.2E-10	2.6E-10	1.5E-10	7.9E-11	4.6E+02	5.5E+02	1.1E+03	1.9E+03	1.7E+03	4.6E+02	≤ 1
Zn-65	1.0E+00	3.6E-08	5.0E-01	1.6E-08	9.7E-09	6.4E-09	3.9E-09	1.1E+01	1.8E+01	2.9E+01	4.5E+01	3.5E+01	1.1E+01	≤ 1
Zn-69	1.0E+00	3.5E-10	5.0E-01	2.2E-10	1.1E-10	6.0E-11	3.1E-11	1.1E+03	1.3E+03	2.6E+03	4.8E+03	4.4E+03	1.1E+03	≤ 1
Zn-69m	1.0E+00	1.3E-09	5.0E-01	2.3E-09	1.2E-09	7.0E-10	3.3E-10	3.1E+02	1.2E+02	2.4E+02	4.1E+02	4.2E+02	1.2E+02	1-2
Zn-71m	1.0E+00	1.4E-09	5.0E-01	1.5E-09	7.8E-10	4.8E-10	2.4E-10	2.9E+02	1.9E+02	3.7E+02	6.0E+02	5.7E+02	1.9E+02	1-2
Zn-72	1.0E+00	8.7E-09	5.0E-01	8.6E-09	4.5E-09	2.8E-09	1.4E-09	4.6E+01	3.3E+01	6.3E+01	1.0E+02	9.8E+01	3.3E+01	1-2
<b>Gallium</b>														
Ga-65	1.0E-02	4.3E-10	1.0E-03	2.4E-10	1.2E-10	6.9E-11	3.7E-11	9.3E+02	1.2E+03	2.4E+03	4.1E+03	3.7E+03	9.3E+02	≤ 1
Ga-66	1.0E-02	1.2E-08	1.0E-03	7.9E-09	4.0E-09	2.5E-09	1.2E-09	3.3E+01	3.6E+01	7.1E+01	1.1E+02	1.1E+02	3.3E+01	≤ 1
Ga-67	1.0E-02	1.8E-09	1.0E-03	1.2E-09	6.4E-10	4.0E-10	1.9E-10	2.2E+02	2.4E+02	4.5E+02	7.1E+02	7.2E+02	2.2E+02	≤ 1
Ga-68	1.0E-02	1.2E-09	1.0E-03	6.7E-10	3.4E-10	2.0E-10	1.0E-10	3.3E+02	4.3E+02	8.4E+02	1.4E+03	1.4E+03	3.3E+02	≤ 1
Ga-70	1.0E-02	3.9E-10	1.0E-03	2.2E-10	1.0E-10	5.9E-11	3.1E-11	1.0E+03	1.3E+03	2.9E+03	4.8E+03	4.4E+03	1.0E+03	≤ 1
Ga-72	1.0E-02	1.0E-08	1.0E-03	6.8E-09	3.6E-09	2.2E-09	1.1E-09	4.0E+01	4.2E+01	7.9E+01	1.3E+02	1.2E+02	4.0E+01	≤ 1

continue

Table 1. (continue)

NUCLIDE	Committed effective dose per unit intake via ingestion (h) for members of the public Sv/Bq							Derived activity concentration in water (DWC) Bq/l					Critical concentration Bq/l	Critical age y
	AGE (g)	≤ 1 y	AGE (g)	1-2 y	2-7 y	7-10 y	>17 y	≤ 1 y	1-2 y	2-7 y	7-10 y	>17 y		
	f <sub>1</sub> for g ≤1y	h(g)	f <sub>1</sub> for g > 1y	h(g)	h(g)	h(g)	h(g)	DWC	DWC	DWC	DWC	DWC		
Ga-73	1.0E-02	3.0E-09	1.0E-03	1.9E-09	9.3E-10	5.5E-10	2.6E-10	1.3E+02	1.5E+02	3.1E+02	5.2E+02	5.3E+02	1.3E+02	≤ 1
<b>Germanium</b>														
Ge-66	1.0E+00	8.3E-10	1.0E+00	5.3E-10	2.9E-10	1.9E-10	1.0E-10	4.8E+02	5.4E+02	9.9E+02	1.5E+03	1.4E+03	4.8E+02	≤ 1
Ge-67	1.0E+00	7.7E-10	1.0E+00	4.2E-10	2.1E-10	1.2E-10	6.5E-11	5.2E+02	6.8E+02	1.4E+03	2.4E+03	2.1E+03	5.2E+02	≤ 1
Ge-68	1.0E+00	1.2E-08	1.1E+00	8.0E-09	4.2E-09	2.6E-09	1.3E-09	3.3E+01	3.6E+01	6.8E+01	1.1E+02	1.1E+02	3.3E+01	≤ 1
Ge-69	1.0E+00	2.0E-09	1.0E+00	1.3E-09	7.1E-10	4.6E-10	2.4E-10	2.0E+02	2.2E+02	4.0E+02	6.2E+02	5.7E+02	2.0E+02	≤ 1
Ge-71	1.0E+00	1.2E-10	1.0E+00	7.8E-11	4.0E-11	2.4E-11	1.2E-11	3.3E+03	3.7E+03	7.1E+03	1.2E+04	1.1E+04	3.3E+03	≤ 1
Ge-75	1.0E+00	5.5E-10	1.0E+00	3.1E-10	1.5E-10	8.7E-11	4.6E-11	7.3E+02	9.2E+02	1.9E+03	3.3E+03	3.0E+03	7.3E+02	≤ 1
Ge-77	1.0E+00	3.0E-09	1.0E+00	1.8E-09	9.9E-10	6.2E-10	3.3E-10	1.3E+02	1.6E+02	2.9E+02	4.6E+02	4.2E+02	1.3E+02	≤ 1
Ge-78	1.0E+00	1.2E-09	1.0E+00	7.0E-10	3.6E-10	2.2E-10	1.2E-10	3.3E+02	4.1E+02	7.9E+02	1.3E+03	1.1E+03	3.3E+02	≤ 1
<b>Arsenic</b>														
As-69	1.0E+00	6.6E-10	5.0E-01	3.7E-10	1.8E-10	1.1E-10	5.7E-11	6.1E+02	7.7E+02	1.6E+03	2.6E+03	2.4E+03	6.1E+02	≤ 1
As-70	1.0E+00	1.2E-09	5.0E-01	7.8E-10	4.1E-10	2.5E-10	1.3E-10	3.3E+02	3.7E+02	7.0E+02	1.1E+03	1.1E+03	3.3E+02	≤ 1
As-71	1.0E+00	2.8E-09	5.0E-01	2.8E-09	1.5E-09	9.3E-10	4.6E-10	1.4E+02	1.0E+02	1.9E+02	3.1E+02	3.0E+02	1.0E+02	1-2
As-72	1.0E+00	1.1E-08	5.0E-01	1.2E-08	6.3E-09	3.8E-09	1.8E-09	3.6E+01	2.4E+01	4.5E+01	7.5E+01	7.6E+01	2.4E+01	1-2
As-73	1.0E+00	2.6E-09	5.0E-01	1.9E-09	9.3E-10	5.6E-10	2.6E-10	1.5E+02	1.5E+02	3.1E+02	5.1E+02	5.3E+02	1.5E+02	1-2
As-74	1.0E+00	1.0E-08	5.0E-01	8.2E-09	4.3E-09	2.6E-09	1.3E-09	4.0E+01	3.5E+01	6.6E+01	1.1E+02	1.1E+02	3.5E+01	1-2
As-76	1.0E+00	1.0E-08	5.0E-01	1.1E-08	5.8E-09	3.4E-09	1.6E-09	4.0E+01	2.6E+01	4.9E+01	8.4E+01	8.6E+01	2.6E+01	1-2
As-77	1.0E+00	2.7E-09	5.0E-01	2.9E-09	1.5E-09	8.7E-10	4.0E-10	1.5E+02	9.9E+01	1.9E+02	3.3E+02	3.4E+02	9.9E+01	1-2
As-78	1.0E+00	2.0E-09	5.0E-01	1.4E-09	7.0E-10	4.1E-10	2.1E-10	2.0E+02	2.0E+02	4.1E+02	7.0E+02	6.5E+02	2.0E+02	≤ 1
<b>Selenium</b>														
Se-70	1.0E+00	1.0E-09	8.0E-01	7.1E-10	3.6E-10	2.2E-10	1.2E-10	4.0E+02	4.0E+02	7.9E+02	1.3E+03	1.1E+03	4.0E+02	≤ 1

continue

Table 1. (continue)

NUCLIDE	Committed effective dose per unit intake via ingestion (h) for members of the public Sv/Bq							Derived activity concentration in water (DWC) Bq/l					Critical concentration Bq/l	Critical age y
	AGE (g)	≤ 1 y	AGE (g)	1-2 y	2-7 y	7-10 y	>17 y	≤ 1 y	1-2 y	2-7 y	7-10 y	>17 y		
	f <sub>i</sub> for g ≤1y	h(g)	f <sub>i</sub> for g > 1y	h(g)	h(g)	h(g)	h(g)	DWC	DWC	DWC	DWC	DWC		
Se-73	1.0E+00	1.6E-09	8.0E-01	1.4E-09	7.4E-10	4.8E-10	2.1E-10	2.5E+02	2.0E+02	3.9E+02	6.0E+02	6.5E+02	2.0E+02	1-2
Se-73m	1.0E+00	2.6E-10	8.0E-01	1.8E-10	9.5E-11	5.9E-11	2.8E-11	1.5E+03	1.6E+03	3.0E+03	4.8E+03	4.9E+03	1.5E+03	≤ 1
Se-75	1.0E+00	2.0E-08	8.0E-01	1.3E-08	8.3E-09	6.0E-09	2.6E-09	2.0E+01	2.2E+01	3.4E+01	4.8E+01	5.3E+01	2.0E+01	≤ 1
Se-79	1.0E+00	4.1E-08	8.0E-01	2.8E-08	1.9E-08	1.4E-08	2.9E-09	9.8E+00	1.0E+01	1.5E+01	2.0E+01	4.7E+01	9.8E+00	≤ 1
Se-81	1.0E+00	3.4E-10	8.0E-01	1.9E-10	9.0E-11	5.1E-11	2.7E-11	1.2E+03	1.5E+03	3.2E+03	5.6E+03	5.1E+03	1.2E+03	≤ 1
Se-81m	1.0E+00	6.0E-10	8.0E-01	3.7E-10	1.8E-10	1.1E-10	5.3E-11	6.7E+02	7.7E+02	1.6E+03	2.6E+03	2.6E+03	6.7E+02	≤ 1
Se-83	1.0E+00	4.6E-10	8.0E-01	2.9E-10	1.5E-10	8.7E-11	4.7E-11	8.7E+02	9.9E+02	1.9E+03	3.3E+03	2.9E+03	8.7E+02	≤ 1
<b>Bromine</b>														
Br-74	1.0E+00	9.0E-10	1.0E+00	5.2E-10	2.6E-10	1.5E-10	8.4E-11	4.4E+02	5.5E+02	1.1E+03	1.9E+03	1.6E+03	4.4E+02	≤ 1
Br-74m	1.0E+00	1.5E-09	1.0E+00	8.5E-10	4.3E-10	2.5E-10	1.4E-10	2.7E+02	3.4E+02	6.6E+02	1.1E+03	9.8E+02	2.7E+02	≤ 1
Br-75	1.0E+00	8.5E-10	1.0E+00	4.9E-10	2.5E-10	1.5E-10	7.9E-11	4.7E+02	5.8E+02	1.1E+03	1.9E+03	1.7E+03	4.7E+02	≤ 1
Br-76	1.0E+00	4.2E-09	1.0E+00	2.7E-09	1.4E-09	8.7E-10	4.6E-10	9.5E+01	1.1E+02	2.0E+02	3.3E+02	3.0E+02	9.5E+01	≤ 1
Br-77	1.0E+00	6.3E-10	1.0E+00	4.4E-10	2.5E-10	1.7E-10	9.6E-11	6.3E+02	6.5E+02	1.1E+03	1.7E+03	1.4E+03	6.3E+02	≤ 1
Br-80	1.0E+00	3.9E-10	1.0E+00	2.1E-10	1.0E-10	5.8E-11	3.1E-11	1.0E+03	1.4E+03	2.9E+03	4.9E+03	4.4E+03	1.0E+03	≤ 1
Br-80m	1.0E+00	1.4E-09	1.0E+00	8.0E-10	3.9E-10	2.3E-10	1.1E-10	2.9E+02	3.6E+02	7.3E+02	1.2E+03	1.2E+03	2.9E+02	≤ 1
Br-82	1.0E+00	3.7E-09	1.0E+00	2.6E-09	1.5E-09	9.5E-10	5.4E-10	1.1E+02	1.1E+02	1.9E+02	3.0E+02	2.5E+02	1.1E+02	≤ 1
Br-83	1.0E+00	5.3E-10	1.0E+00	3.0E-10	1.4E-10	8.3E-11	4.3E-11	7.5E+02	9.5E+02	2.0E+03	3.4E+03	3.2E+03	7.5E+02	≤ 1
Br-84	1.0E+00	1.0E-09	1.0E+00	5.8E-10	2.8E-10	1.6E-10	8.8E-11	4.0E+02	4.9E+02	1.0E+03	1.8E+03	1.6E+03	4.0E+02	≤ 1
<b>Rubidium</b>														
Rb-79	1.0E+00	5.7E-10	1.0E+00	3.2E-10	1.6E-10	9.2E-11	5.0E-11	7.0E+02	8.9E+02	1.8E+03	3.1E+03	2.7E+03	7.0E+02	≤ 1
Rb-81	1.0E+00	5.4E-10	1.0E+00	3.2E-10	1.6E-10	1.0E-10	5.4E-11	7.4E+02	8.9E+02	1.8E+03	2.9E+03	2.5E+03	7.4E+02	≤ 1
Rb-81m	1.0E+00	1.1E-10	1.0E+00	6.2E-11	3.1E-11	1.8E-11	9.7E-12	3.6E+03	4.6E+03	9.2E+03	1.6E+04	1.4E+04	3.6E+03	≤ 1

continue

Table 1. (continue)

NUCLIDE	Committed effective dose per unit intake via ingestion (h) for members of the public Sv/Bq							Derived activity concentration in water (DWC) Bq/l					Critical concentration Bq/l	Critical age y
	AGE (g)	≤ 1 y	AGE (g)	1-2 y	2-7 y	7-10 y	>17 y	≤ 1 y	1-2 y	2-7 y	7-10 y	>17 y		
	f <sub>i</sub> for g ≤1y	h(g)	f <sub>i</sub> for g > 1y	h(g)	h(g)	h(g)	h(g)	DWC	DWC	DWC	DWC	DWC		
Rb-82m	1.0E+00	8.7E-10	1.0E+00	5.9E-10	3.4E-10	2.2E-10	1.3E-10	4.6E+02	4.8E+02	8.4E+02	1.3E+03	1.1E+03	4.6E+02	≤ 1
Rb-83	1.0E+00	1.1E-08	1.0E+00	8.4E-09	4.9E-09	3.2E-09	1.9E-09	3.6E+01	3.4E+01	5.8E+01	8.9E+01	7.2E+01	3.4E+01	1-2
Rb-84	1.0E+00	2.0E-08	1.0E+00	1.4E-08	7.9E-09	5.0E-09	2.8E-09	2.0E+01	2.0E+01	3.6E+01	5.7E+01	4.9E+01	2.0E+01	≤ 1
Rb-86	1.0E+00	3.1E-08	1.0E+00	2.0E-08	9.9E-09	5.9E-09	2.8E-09	1.3E+01	1.4E+01	2.9E+01	4.8E+01	4.9E+01	1.3E+01	≤ 1
Rb-87	1.0E+00	1.5E-08	1.0E+00	1.0E-08	5.2E-09	3.1E-09	1.5E-09	2.7E+01	2.9E+01	5.5E+01	9.2E+01	9.1E+01	2.7E+01	≤ 1
Rb-88	1.0E+00	1.1E-09	1.0E+00	6.2E-10	3.0E-10	1.7E-10	9.0E-11	3.6E+02	4.6E+02	9.5E+02	1.7E+03	1.5E+03	3.6E+02	≤ 1
Rb-89	1.0E+00	5.4E-10	1.0E+00	3.0E-10	1.5E-10	8.6E-11	4.7E-11	7.4E+02	9.5E+02	1.9E+03	3.3E+03	2.9E+03	7.4E+02	≤ 1
<b>Strontium</b>														
Sr-80	6.0E-01	3.7E-09	3.0E-01	2.3E-09	1.1E-09	6.5E-10	3.4E-10	1.1E+02	1.2E+02	2.6E+02	4.4E+02	4.0E+02	1.1E+02	≤ 1
Sr-81	6.0E-01	8.4E-10	3.0E-01	4.9E-10	2.4E-10	1.4E-10	7.7E-11	4.8E+02	5.8E+02	1.2E+03	2.0E+03	1.8E+03	4.8E+02	≤ 1
Sr-82	6.0E-01	7.2E-08	3.0E-01	4.1E-08	2.1E-08	1.3E-08	6.1E-09	5.6E+00	7.0E+00	1.4E+01	2.2E+01	2.2E+01	5.6E+00	≤ 1
Sr-83	6.0E-01	3.4E-09	3.0E-01	2.7E-09	1.4E-09	9.1E-10	4.9E-10	1.2E+02	1.1E+02	2.0E+02	3.1E+02	2.8E+02	1.1E+02	1-2
Sr-85	6.0E-01	7.7E-09	3.0E-01	3.1E-09	1.7E-09	1.5E-09	5.6E-10	5.2E+01	9.2E+01	1.7E+02	1.9E+02	2.4E+02	5.2E+01	≤ 1
Sr-85m	6.0E-01	4.5E-11	3.0E-01	3.0E-11	1.7E-11	1.1E-11	6.1E-12	8.9E+03	9.5E+03	1.7E+04	2.6E+04	2.2E+04	8.9E+03	≤ 1
Sr-87m	6.0E-01	2.4E-10	3.0E-01	1.7E-10	9.0E-11	5.6E-11	3.0E-11	1.7E+03	1.7E+03	3.2E+03	5.1E+03	4.6E+03	1.7E+03	≤ 1
Sr-89	6.0E-01	3.6E-08	3.0E-01	1.8E-08	8.9E-09	5.8E-09	2.6E-09	1.1E+01	1.6E+01	3.2E+01	4.9E+01	5.3E+01	1.1E+01	≤ 1
Sr-90	6.0E-01	2.3E-07	3.0E-01	7.3E-08	4.7E-08	6.0E-08	2.8E-08	1.7E+00	3.9E+00	6.1E+00	4.8E+00	4.9E+00	1.7E+00	≤ 1
Sr-91	6.0E-01	5.2E-09	3.0E-01	4.0E-09	2.1E-09	1.2E-09	6.5E-10	7.7E+01	7.1E+01	1.4E+02	2.4E+02	2.1E+02	7.1E+01	1-2
Sr-92	6.0E-01	3.4E-09	3.0E-01	2.7E-09	1.4E-09	8.2E-10	4.3E-10	1.2E+02	1.1E+02	2.0E+02	3.5E+02	3.2E+02	1.1E+02	1-2
<b>Yttrium</b>														
Y-86	1.0E-03	7.6E-09	1.0E-04	5.2E-09	2.9E-09	1.9E-09	9.6E-10	5.3E+01	5.5E+01	9.9E+01	1.5E+02	1.4E+02	5.3E+01	≤ 1
Y-86m	1.0E-03	4.5E-10	1.0E-04	3.1E-10	1.7E-10	1.1E-10	5.6E-11	8.9E+02	9.2E+02	1.7E+03	2.6E+03	2.4E+03	8.9E+02	≤ 1

continue

Table 1. (continue)

NUCLIDE	Committed effective dose per unit intake via ingestion (h) for members of the public Sv/Bq							Derived activity concentration in water (DWC) Bq/l					Critical concentration Bq/l	Critical age y
	AGE (g)	≤ 1 y	AGE (g)	1-2 y	2-7 y	7-10 y	>17 y	≤ 1 y	1-2 y	2-7 y	7-10 y	>17 y		
	f <sub>i</sub> for g ≤1y	h(g)	f <sub>i</sub> for g > 1y	h(g)	h(g)	h(g)	h(g)	DWC	DWC	DWC	DWC	DWC		
Y-87	1.0E-03	4.6E-09	1.0E-04	3.2E-09	1.8E-09	1.1E-09	5.5E-10	8.7E+01	8.9E+01	1.6E+02	2.6E+02	2.5E+02	8.7E+01	≤ 1
Y-88	1.0E-03	8.1E-09	1.0E-04	6.0E-09	3.5E-09	2.4E-09	1.3E-09	4.9E+01	4.8E+01	8.2E+01	1.2E+02	1.1E+02	4.8E+01	1-2
Y-90	1.0E-03	3.1E-08	1.0E-04	2.0E-08	1.0E-08	5.9E-09	2.7E-09	1.3E+01	1.4E+01	2.9E+01	4.8E+01	5.1E+01	1.3E+01	≤ 1
Y-90m	1.0E-03	1.8E-09	1.0E-04	1.2E-09	6.1E-10	3.7E-10	1.7E-10	2.2E+02	2.4E+02	4.7E+02	7.7E+02	8.1E+02	2.2E+02	≤ 1
Y-91	1.0E-03	2.8E-08	1.0E-04	1.8E-08	8.8E-09	5.2E-09	2.4E-09	1.4E+01	1.6E+01	3.2E+01	5.5E+01	5.7E+01	1.4E+01	≤ 1
Y-91m	1.0E-03	9.2E-11	1.0E-04	6.0E-11	3.3E-11	2.1E-11	1.1E-11	4.3E+03	4.8E+03	8.7E+03	1.4E+04	1.2E+04	4.3E+03	≤ 1
Y-92	1.0E-03	5.9E-09	1.0E-04	3.6E-09	1.8E-09	1.0E-09	4.9E-10	6.8E+01	7.9E+01	1.6E+02	2.9E+02	2.8E+02	6.8E+01	≤ 1
Y-93	1.0E-03	1.4E-08	1.0E-04	8.5E-09	4.3E-09	2.5E-09	1.2E-09	2.9E+01	3.4E+01	6.6E+01	1.1E+02	1.1E+02	2.9E+01	≤ 1
Y-94	1.0E-03	9.9E-10	1.0E-04	5.5E-10	2.7E-10	1.5E-10	8.1E-11	4.0E+02	5.2E+02	1.1E+03	1.9E+03	1.7E+03	4.0E+02	≤ 1
Y-95	1.0E-03	5.7E-10	1.0E-04	3.1E-10	1.5E-10	8.7E-11	4.6E-11	7.0E+02	9.2E+02	1.9E+03	3.3E+03	3.0E+03	7.0E+02	≤ 1
<b>Zirconium</b>														
Zr-86	2.0E-02	6.9E-09	1.0E-02	4.8E-09	2.7E-09	1.7E-09	8.6E-10	5.8E+01	6.0E+01	1.1E+02	1.7E+02	1.6E+02	5.8E+01	≤ 1
Zr-88	2.0E-02	2.8E-09	1.0E-02	2.0E-09	1.2E-09	8.0E-10	4.5E-10	1.4E+02	1.4E+02	2.4E+02	3.6E+02	3.0E+02	1.4E+02	≤ 1
Zr-89	2.0E-02	6.5E-09	1.0E-02	4.5E-09	2.5E-09	1.6E-09	7.9E-10	6.2E+01	6.3E+01	1.1E+02	1.8E+02	1.7E+02	6.2E+01	≤ 1
Zr-93	2.0E-02	1.2E-09	1.0E-02	7.6E-10	5.1E-10	5.8E-10	1.1E-09	3.3E+02	3.8E+02	5.6E+02	4.9E+02	1.2E+02	1.2E+02	>17
Zr-95	2.0E-02	8.5E-09	1.0E-02	5.6E-09	3.0E-09	1.9E-09	9.5E-10	4.7E+01	5.1E+01	9.5E+01	1.5E+02	1.4E+02	4.7E+01	≤ 1
Zr-97	2.0E-02	2.2E-08	1.0E-02	1.4E-08	7.3E-09	4.4E-09	2.1E-09	1.8E+01	2.0E+01	3.9E+01	6.5E+01	6.5E+01	1.8E+01	≤ 1
<b>Niobium</b>														
Nb-88	2.0E-02	6.7E-10	1.0E-02	3.8E-10	1.9E-10	1.1E-10	6.3E-11	6.0E+02	7.5E+02	1.5E+03	2.6E+03	2.2E+03	6.0E+02	≤ 1
Nb-89	2.0E-02	3.0E-09	1.0E-02	2.0E-09	1.0E-09	6.0E-10	2.7E-10	1.3E+02	1.4E+02	2.9E+02	4.8E+02	5.1E+02	1.3E+02	≤ 1
Nb-89	2.0E-02	1.5E-09	1.0E-02	8.7E-10	4.4E-10	2.7E-10	1.4E-10	2.7E+02	3.3E+02	6.5E+02	1.1E+03	9.8E+02	2.7E+02	≤ 1
Nb-90	2.0E-02	1.1E-08	1.0E-02	7.2E-09	3.9E-09	2.5E-09	1.2E-09	3.6E+01	4.0E+01	7.3E+01	1.1E+02	1.1E+02	3.6E+01	≤ 1

continue

Table 1. (continue)

NUCLIDE	Committed effective dose per unit intake via ingestion (h) for members of the public							Derived activity concentration in water (DWC)					Critical concentration Bq/l	Critical age y
	Sv/Bq							Bq/l						
	AGE (g)	≤ 1 y	AGE (g)	1-2 y	2-7 y	7-10 y	>17 y	≤ 1 y	1-2 y	2-7 y	7-10 y	>17 y		
$f_1$ for g ≤1y	h(g)	$f_1$ for g > 1y	h(g)	h(g)	h(g)	h(g)	DWC	DWC	DWC	DWC	DWC			
Nb-93m	2.0E-02	1.5E-09	1.0E-02	9.1E-10	4.6E-10	2.7E-10	1.2E-10	2.7E+02	3.1E+02	6.2E+02	1.1E+03	1.1E+03	2.7E+02	≤ 1
Nb-94	2.0E-02	1.5E-08	1.0E-02	9.7E-09	5.3E-09	3.4E-09	1.7E-09	2.7E+01	2.9E+01	5.4E+01	8.4E+01	8.1E+01	2.7E+01	≤ 1
Nb-95	2.0E-02	4.6E-09	1.0E-02	3.2E-09	1.8E-09	1.1E-09	5.8E-10	8.7E+01	8.9E+01	1.6E+02	2.6E+02	2.4E+02	8.7E+01	≤ 1
Nb-95m	2.0E-02	6.4E-09	1.0E-02	4.1E-09	2.1E-09	1.2E-09	5.6E-10	6.3E+01	7.0E+01	1.4E+02	2.4E+02	2.4E+02	6.3E+01	≤ 1
Nb-96	2.0E-02	9.2E-09	1.0E-02	6.3E-09	3.4E-09	2.2E-09	1.1E-09	4.3E+01	4.5E+01	8.4E+01	1.3E+02	1.2E+02	4.3E+01	≤ 1
Nb-97	2.0E-02	7.7E-10	1.0E-02	4.5E-10	2.3E-10	1.3E-10	6.8E-11	5.2E+02	6.3E+02	1.2E+03	2.2E+03	2.0E+03	5.2E+02	≤ 1
Nb-98	2.0E-02	1.2E-09	1.0E-02	7.1E-10	3.6E-10	2.2E-10	1.1E-10	3.3E+02	4.0E+02	7.9E+02	1.3E+03	1.2E+03	3.3E+02	≤ 1
<b>Molybdenum</b>														
Mo-90	1.0E+00	1.7E-09	1.0E+00	1.2E-09	6.3E-10	4.0E-10	2.2E-10	2.4E+02	2.4E+02	4.5E+02	7.1E+02	6.2E+02	2.4E+02	≤ 1
Mo-93	1.0E+00	7.9E-09	1.0E+00	6.9E-09	5.0E-09	4.0E-09	3.1E-09	5.1E+01	4.1E+01	5.7E+01	7.1E+01	4.4E+01	4.1E+01	1-2
Mo-93m	1.0E+00	8.0E-10	1.0E+00	5.4E-10	3.1E-10	2.0E-10	1.1E-10	5.0E+02	5.3E+02	9.2E+02	1.4E+03	1.2E+03	5.0E+02	≤ 1
Mo-99	1.0E+00	5.5E-09	1.0E+00	3.5E-09	1.8E-09	1.1E-09	6.0E-10	7.3E+01	8.2E+01	1.6E+02	2.6E+02	2.3E+02	7.3E+01	≤ 1
Mo-101	1.0E+00	4.8E-10	1.0E+00	2.7E-10	1.3E-10	7.6E-11	4.1E-11	8.3E+02	1.1E+03	2.2E+03	3.8E+03	3.3E+03	8.3E+02	≤ 1
<b>Technetium</b>														
Tc-93	1.0E+00	2.7E-10	5.0E-01	2.5E-10	1.5E-10	9.8E-11	5.5E-11	1.5E+03	1.1E+03	1.9E+03	2.9E+03	2.5E+03	1.1E+03	1-2
Tc-93m	1.0E+00	2.0E-10	5.0E-01	1.3E-10	7.3E-11	4.6E-11	2.5E-11	2.0E+03	2.2E+03	3.9E+03	6.2E+03	5.5E+03	2.0E+03	≤ 1
Tc-94	1.0E+00	1.2E-09	5.0E-01	1.0E-09	5.8E-10	3.7E-10	2.0E-10	3.3E+02	2.9E+02	4.9E+02	7.7E+02	6.8E+02	2.9E+02	1-2
Tc-94m	1.0E+00	1.3E-09	5.0E-01	6.5E-10	3.3E-10	1.9E-10	1.0E-10	3.1E+02	4.4E+02	8.7E+02	1.5E+03	1.4E+03	3.1E+02	≤ 1
Tc-95	1.0E+00	9.9E-10	5.0E-01	8.7E-10	5.0E-10	3.3E-10	1.8E-10	4.0E+02	3.3E+02	5.7E+02	8.7E+02	7.6E+02	3.3E+02	1-2
Tc-95m	1.0E+00	4.7E-09	5.0E-01	2.8E-09	1.6E-09	1.0E-09	5.6E-10	8.5E+01	1.0E+02	1.8E+02	2.9E+02	2.4E+02	8.5E+01	≤ 1
Tc-96	1.0E+00	6.7E-09	5.0E-01	5.1E-09	3.0E-09	2.0E-09	1.1E-09	6.0E+01	5.6E+01	9.5E+01	1.4E+02	1.2E+02	5.6E+01	1-2
Tc-96m	1.0E+00	1.0E-10	5.0E-01	6.5E-11	3.6E-11	2.3E-11	1.2E-11	4.0E+03	4.4E+03	7.9E+03	1.2E+04	1.1E+04	4.0E+03	≤ 1

continue

Table 1. (continue)

NUCLIDE	Committed effective dose per unit intake via ingestion (h) for members of the public Sv/Bq							Derived activity concentration in water (DWC) Bq/l					Critical concentration Bq/l	Critical age y
	AGE (g)	≤ 1 y	AGE (g)	1-2 y	2-7 y	7-10 y	>17 y	≤ 1 y	1-2 y	2-7 y	7-10 y	>17 y		
	f <sub>i</sub> for g ≤1y	h(g)	f <sub>i</sub> for g > 1y	h(g)	h(g)	h(g)	h(g)	DWC	DWC	DWC	DWC	DWC		
Tc-97	1.0E+00	9.9E-10	5.0E-01	4.9E-10	2.4E-10	1.4E-10	6.8E-11	4.0E+02	5.8E+02	1.2E+03	2.0E+03	2.0E+03	4.0E+02	≤ 1
Tc-97m	1.0E+00	8.7E-09	5.0E-01	4.1E-09	2.0E-09	1.1E-09	5.5E-10	4.6E+01	7.0E+01	1.4E+02	2.6E+02	2.5E+02	4.6E+01	≤ 1
Tc-98	1.0E+00	2.3E-08	5.0E-01	1.2E-08	6.1E-09	3.7E-09	2.0E-09	1.7E+01	2.4E+01	4.7E+01	7.7E+01	6.8E+01	1.7E+01	≤ 1
Tc-99	1.0E+00	1.0E-08	5.0E-01	4.8E-09	2.3E-09	1.3E-09	6.4E-10	4.0E+01	6.0E+01	1.2E+02	2.2E+02	2.1E+02	4.0E+01	≤ 1
Tc-99m	1.0E+00	2.0E-10	5.0E-01	1.3E-10	7.2E-11	4.3E-11	2.2E-11	2.0E+03	2.2E+03	4.0E+03	6.6E+03	6.2E+03	2.0E+03	≤ 1
Tc-101	1.0E+00	2.4E-10	5.0E-01	1.3E-10	6.1E-11	3.5E-11	1.9E-11	1.7E+03	2.2E+03	4.7E+03	8.2E+03	7.2E+03	1.7E+03	≤ 1
Tc-104	1.0E+00	1.0E-09	5.0E-01	5.3E-10	2.6E-10	1.5E-10	8.0E-11	4.0E+02	5.4E+02	1.1E+03	1.9E+03	1.7E+03	4.0E+02	≤ 1
<b>Ruthenium</b>														
Ru-94	1.0E-01	9.3E-10	5.0E-02	5.9E-10	3.1E-10	1.9E-10	9.4E-11	4.3E+02	4.8E+02	9.2E+02	1.5E+03	1.5E+03	4.3E+02	≤ 1
Ru-97	1.0E-01	1.2E-09	5.0E-02	8.5E-10	4.7E-10	3.0E-10	1.5E-10	3.3E+02	3.4E+02	6.1E+02	9.5E+02	9.1E+02	3.3E+02	≤ 1
Ru-103	1.0E-01	7.1E-09	5.0E-02	4.6E-09	2.4E-09	1.5E-09	7.3E-10	5.6E+01	6.2E+01	1.2E+02	1.9E+02	1.9E+02	5.6E+01	≤ 1
Ru-105	1.0E-01	2.7E-09	5.0E-02	1.8E-09	9.1E-10	5.5E-10	2.6E-10	1.5E+02	1.6E+02	3.1E+02	5.2E+02	5.3E+02	1.5E+02	≤ 1
Ru-106	1.0E-01	8.4E-08	5.0E-02	4.9E-08	2.5E-08	1.5E-08	7.0E-09	4.8E+00	5.8E+00	1.1E+01	1.9E+01	2.0E+01	4.8E+00	≤ 1
<b>Rhodium</b>														
Rh-99	1.0E-01	4.2E-09	5.0E-02	2.9E-09	1.6E-09	1.0E-09	5.1E-10	9.5E+01	9.9E+01	1.8E+02	2.9E+02	2.7E+02	9.5E+01	≤ 1
Rh-99m	1.0E-01	4.9E-10	5.0E-02	3.5E-10	2.0E-10	1.3E-10	6.6E-11	8.2E+02	8.2E+02	1.4E+03	2.2E+03	2.1E+03	8.2E+02	≤ 1
Rh-100	1.0E-01	4.9E-09	5.0E-02	3.6E-09	2.0E-09	1.4E-09	7.1E-10	8.2E+01	7.9E+01	1.4E+02	2.0E+02	1.9E+02	7.9E+01	1-2
Rh-101	1.0E-01	4.9E-09	5.0E-02	2.8E-09	1.6E-09	1.0E-09	5.5E-10	8.2E+01	1.0E+02	1.8E+02	2.9E+02	2.5E+02	8.2E+01	≤ 1
Rh-101m	1.0E-01	1.7E-09	5.0E-02	1.2E-09	6.8E-10	4.4E-10	2.2E-10	2.4E+02	2.4E+02	4.2E+02	6.5E+02	6.2E+02	2.4E+02	≤ 1
Rh-102	1.0E-01	1.9E-08	5.0E-02	1.0E-08	6.4E-09	4.3E-09	2.6E-09	2.1E+01	2.9E+01	4.5E+01	6.6E+01	5.3E+01	2.1E+01	≤ 1
Rh-102m	1.0E-01	1.2E-08	5.0E-02	7.4E-09	3.9E-09	2.4E-09	1.2E-09	3.3E+01	3.9E+01	7.3E+01	1.2E+02	1.1E+02	3.3E+01	≤ 1
Rh-103m	1.0E-01	4.7E-11	5.0E-02	2.7E-11	1.3E-11	7.4E-12	3.8E-12	8.5E+03	1.1E+04	2.2E+04	3.9E+04	3.6E+04	8.5E+03	≤ 1

continue

Table 1. (continue)

NUCLIDE	Committed effective dose per unit intake via ingestion (h) for members of the public Sv/Bq							Derived activity concentration in water (DWC) Bq/l					Critical concentration Bq/l	Critical age y
	AGE (g)	≤ 1 y	AGE (g)	1-2 y	2-7 y	7-10 y	>17 y	≤ 1 y	1-2 y	2-7 y	7-10 y	>17 y		
	f <sub>1</sub> for g ≤1y	h(g)	f <sub>1</sub> for g > 1y	h(g)	h(g)	h(g)	h(g)	DWC	DWC	DWC	DWC	DWC		
Rh-105	1.0E-01	4.0E-09	5.0E-02	2.7E-09	1.3E-09	8.0E-10	3.7E-10	1.0E+02	1.1E+02	2.2E+02	3.6E+02	3.7E+02	1.0E+02	≤ 1
Rh-106m	1.0E-01	1.4E-09	5.0E-02	9.7E-10	5.3E-10	3.3E-10	1.6E-10	2.9E+02	2.9E+02	5.4E+02	8.7E+02	8.6E+02	2.9E+02	≤ 1
Rh-107	1.0E-01	2.9E-10	5.0E-02	1.6E-10	7.9E-11	4.5E-11	2.4E-11	1.4E+03	1.8E+03	3.6E+03	6.3E+03	5.7E+03	1.4E+03	≤ 1
<b>Palladium</b>														
Pd-100	5.0E-02	7.4E-09	5.0E-03	5.2E-09	2.9E-09	1.9E-09	9.4E-10	5.4E+01	5.5E+01	9.9E+01	1.5E+02	1.5E+02	5.4E+01	≤ 1
Pd-101	5.0E-02	8.2E-10	5.0E-03	5.7E-10	3.1E-10	1.9E-10	9.4E-11	4.9E+02	5.0E+02	9.2E+02	1.5E+03	1.5E+03	4.9E+02	≤ 1
Pd-103	5.0E-02	2.2E-09	5.0E-03	1.4E-09	7.2E-10	4.3E-10	1.9E-10	1.8E+02	2.0E+02	4.0E+02	6.6E+02	7.2E+02	1.8E+02	≤ 1
Pd-107	5.0E-02	4.4E-10	5.0E-03	2.8E-10	1.4E-10	8.1E-11	3.7E-11	9.1E+02	1.0E+03	2.0E+03	3.5E+03	3.7E+03	9.1E+02	≤ 1
Pd-109	5.0E-02	6.3E-09	5.0E-03	4.1E-09	2.0E-09	1.2E-09	5.5E-10	6.3E+01	7.0E+01	1.4E+02	2.4E+02	2.5E+02	6.3E+01	≤ 1
<b>Silver</b>														
Ag-102	1.0E-01	4.2E-10	5.0E-02	2.4E-10	1.2E-10	7.3E-11	4.0E-11	9.5E+02	1.2E+03	2.4E+03	3.9E+03	3.4E+03	9.5E+02	≤ 1
Ag-103	1.0E-01	4.5E-10	5.0E-02	2.7E-10	1.4E-10	8.3E-11	4.3E-11	8.9E+02	1.1E+03	2.0E+03	3.4E+03	3.2E+03	8.9E+02	≤ 1
Ag-104	1.0E-01	4.3E-10	5.0E-02	2.9E-10	1.7E-10	1.1E-10	6.0E-11	9.3E+02	9.9E+02	1.7E+03	2.6E+03	2.3E+03	9.3E+02	≤ 1
Ag-104m	1.0E-01	5.6E-10	5.0E-02	3.3E-10	1.7E-10	1.0E-10	5.4E-11	7.1E+02	8.7E+02	1.7E+03	2.9E+03	2.5E+03	7.1E+02	≤ 1
Ag-105	1.0E-01	3.9E-09	5.0E-02	2.5E-09	1.4E-09	9.1E-10	4.7E-10	1.0E+02	1.1E+02	2.0E+02	3.1E+02	2.9E+02	1.0E+02	≤ 1
Ag-106	1.0E-01	3.7E-10	5.0E-02	2.1E-10	1.0E-10	6.0E-11	3.2E-11	1.1E+03	1.4E+03	2.9E+03	4.8E+03	4.3E+03	1.1E+03	≤ 1
Ag-106m	1.0E-01	9.7E-09	5.0E-02	6.9E-09	4.1E-09	2.8E-09	1.5E-09	4.1E+01	4.1E+01	7.0E+01	1.0E+02	9.1E+01	4.1E+01	≤ 1
Ag-108m	1.0E-01	2.1E-08	5.0E-02	1.1E-08	6.5E-09	4.3E-09	2.3E-09	1.9E+01	2.6E+01	4.4E+01	6.6E+01	6.0E+01	1.9E+01	≤ 1
Ag-110m	1.0E-01	2.4E-08	5.0E-02	1.4E-08	7.8E-09	5.2E-09	2.8E-09	1.7E+01	2.0E+01	3.7E+01	5.5E+01	4.9E+01	1.7E+01	≤ 1
Ag-111	1.0E-01	1.4E-08	5.0E-02	9.3E-09	4.6E-09	2.7E-09	1.3E-09	2.9E+01	3.1E+01	6.2E+01	1.1E+02	1.1E+02	2.9E+01	≤ 1
Ag-112	1.0E-01	4.9E-09	5.0E-02	3.0E-09	1.5E-09	8.9E-10	4.3E-10	8.2E+01	9.5E+01	1.9E+02	3.2E+02	3.2E+02	8.2E+01	≤ 1
Ag-115	1.0E-01	7.2E-10	5.0E-02	4.1E-10	2.0E-10	1.2E-10	6.0E-11	5.6E+02	7.0E+02	1.4E+03	2.4E+03	2.3E+03	5.6E+02	≤ 1

continue

Table 1. (continue)

NUCLIDE	Committed effective dose per unit intake via ingestion (h) for members of the public Sv/Bq							Derived activity concentration in water (DWC) Bq/l					Critical concentration Bq/l	Critical age y
	AGE (g)	≤ 1 y	AGE (g)	1-2 y	2-7 y	7-10 y	>17 y	≤ 1 y	1-2 y	2-7 y	7-10 y	>17 y		
	f <sub>1</sub> for g ≤1y	h(g)	f <sub>1</sub> for g > 1y	h(g)	h(g)	h(g)	h(g)	DWC	DWC	DWC	DWC	DWC		
<b>Cadmium</b>														
Cd-104	1.0E-01	4.2E-10	5.0E-02	2.9E-10	1.7E-10	1.1E-10	5.4E-11	9.5E+02	9.9E+02	1.7E+03	2.6E+03	2.5E+03	9.5E+02	≤ 1
Cd-107	1.0E-01	7.1E-10	5.0E-02	4.6E-10	2.3E-10	1.3E-10	6.2E-11	5.6E+02	6.2E+02	1.2E+03	2.2E+03	2.2E+03	5.6E+02	≤ 1
Cd-109	1.0E-01	2.1E-08	5.0E-02	9.5E-09	5.5E-09	3.5E-09	2.0E-09	1.9E+01	3.0E+01	5.2E+01	8.2E+01	6.8E+01	1.9E+01	≤ 1
Cd-113	1.0E-01	1.0E-07	5.0E-02	4.8E-08	3.7E-08	3.0E-08	2.5E-08	4.0E+00	6.0E+00	7.7E+00	9.5E+00	5.5E+00	4.0E+00	≤ 1
Cd-113m	1.0E-01	1.2E-07	5.0E-02	5.6E-08	3.9E-08	2.9E-08	2.3E-08	3.3E+00	5.1E+00	7.3E+00	9.9E+00	6.0E+00	3.3E+00	≤ 1
Cd-115	1.0E-01	1.4E-08	5.0E-02	9.7E-09	4.9E-09	2.9E-09	1.4E-09	2.9E+01	2.9E+01	5.8E+01	9.9E+01	9.8E+01	2.9E+01	≤ 1
Cd-115m	1.0E-01	4.1E-08	5.0E-02	1.9E-08	9.7E-09	6.9E-09	3.3E-09	9.8E+00	1.5E+01	2.9E+01	4.1E+01	4.2E+01	9.8E+00	≤ 1
Cd-117	1.0E-01	2.9E-09	5.0E-02	1.9E-09	9.5E-10	5.7E-10	2.8E-10	1.4E+02	1.5E+02	3.0E+02	5.0E+02	4.9E+02	1.4E+02	≤ 1
Cd-117m	1.0E-01	2.6E-09	5.0E-02	1.7E-09	9.0E-10	5.6E-10	2.8E-10	1.5E+02	1.7E+02	3.2E+02	5.1E+02	4.9E+02	1.5E+02	≤ 1
<b>Indium</b>														
In-109	4.0E-02	5.2E-10	2.0E-02	3.6E-10	2.0E-10	1.3E-10	6.6E-11	7.7E+02	7.9E+02	1.4E+03	2.2E+03	2.1E+03	7.7E+02	≤ 1
In-110	4.0E-02	1.5E-09	2.0E-02	1.1E-09	6.5E-10	4.4E-10	2.4E-10	2.7E+02	2.6E+02	4.4E+02	6.5E+02	5.7E+02	2.6E+02	1-2
In-110	4.0E-02	1.1E-09	2.0E-02	6.4E-10	3.2E-10	1.9E-10	1.0E-10	3.6E+02	4.5E+02	8.9E+02	1.5E+03	1.4E+03	3.6E+02	≤ 1
In-111	4.0E-02	2.4E-09	2.0E-02	1.7E-09	9.1E-10	5.9E-10	2.9E-10	1.7E+02	1.7E+02	3.1E+02	4.8E+02	4.7E+02	1.7E+02	≤ 1
In-112	4.0E-02	1.2E-10	2.0E-02	6.7E-11	3.3E-11	1.9E-11	1.0E-11	3.3E+03	4.3E+03	8.7E+03	1.5E+04	1.4E+04	3.3E+03	≤ 1
In-113m	4.0E-02	3.0E-10	2.0E-02	1.8E-10	9.3E-11	6.2E-11	2.8E-11	1.3E+03	1.6E+03	3.1E+03	4.6E+03	4.9E+03	1.3E+03	≤ 1
In-114m	4.0E-02	5.6E-08	2.0E-02	3.1E-08	1.5E-08	9.0E-09	4.1E-09	7.1E+00	9.2E+00	1.9E+01	3.2E+01	3.3E+01	7.1E+00	≤ 1
In-115	4.0E-02	1.3E-07	2.0E-02	6.4E-08	4.8E-08	4.3E-08	3.2E-08	3.1E+00	4.5E+00	6.0E+00	6.6E+00	4.3E+00	3.1E+00	≤ 1
In-115m	4.0E-02	9.6E-10	2.0E-02	6.0E-10	3.0E-10	1.8E-10	8.6E-11	4.2E+02	4.8E+02	9.5E+02	1.6E+03	1.6E+03	4.2E+02	≤ 1
In-116m	4.0E-02	5.8E-10	2.0E-02	3.6E-10	1.9E-10	1.2E-10	6.4E-11	6.9E+02	7.9E+02	1.5E+03	2.4E+03	2.1E+03	6.9E+02	≤ 1
In-117	4.0E-02	3.3E-10	2.0E-02	1.9E-10	9.7E-11	5.8E-11	3.1E-11	1.2E+03	1.5E+03	2.9E+03	4.9E+03	4.4E+03	1.2E+03	≤ 1

continue

Table 1. (continue)

NUCLIDE	Committed effective dose per unit intake via ingestion (h) for members of the public Sv/Bq							Derived activity concentration in water (DWC) Bq/l					Critical concentration Bq/l	Critical age y
	AGE (g)	≤ 1 y	AGE (g)	1-2 y	2-7 y	7-10 y	>17 y	≤ 1 y	1-2 y	2-7 y	7-10 y	>17 y		
	f <sub>i</sub> for g ≤1y	h(g)	f <sub>i</sub> for g > 1y	h(g)	h(g)	h(g)	h(g)	DWC	DWC	DWC	DWC	DWC		
In-117m	4.0E-02	1.4E-09	2.0E-02	8.6E-10	4.3E-10	2.5E-10	1.2E-10	2.9E+02	3.3E+02	6.6E+02	1.1E+03	1.1E+03	2.9E+02	≤ 1
In-119m	4.0E-02	5.9E-10	2.0E-02	3.2E-10	1.6E-10	8.8E-11	4.7E-11	6.8E+02	8.9E+02	1.8E+03	3.2E+03	2.9E+03	6.8E+02	≤ 1
<b>Tin</b>														
Sn-110	4.0E-02	3.5E-09	2.0E-02	2.3E-09	1.2E-09	7.4E-10	3.5E-10	1.1E+02	1.2E+02	2.4E+02	3.9E+02	3.9E+02	1.1E+02	≤ 1
Sn-111	4.0E-02	2.5E-10	2.0E-02	1.5E-10	7.4E-11	4.4E-11	2.3E-11	1.6E+03	1.9E+03	3.9E+03	6.5E+03	6.0E+03	1.6E+03	≤ 1
Sn-113	4.0E-02	7.8E-09	2.0E-02	5.0E-09	2.6E-09	1.6E-09	7.3E-10	5.1E+01	5.7E+01	1.1E+02	1.8E+02	1.9E+02	5.1E+01	≤ 1
Sn-117m	4.0E-02	7.7E-09	2.0E-02	5.0E-09	2.5E-09	1.5E-09	7.1E-10	5.2E+01	5.7E+01	1.1E+02	1.9E+02	1.9E+02	5.2E+01	≤ 1
Sn-119m	4.0E-02	4.1E-09	2.0E-02	2.5E-09	1.3E-09	7.5E-10	3.4E-10	9.8E+01	1.1E+02	2.2E+02	3.8E+02	4.0E+02	9.8E+01	≤ 1
Sn-121	4.0E-02	2.6E-09	2.0E-02	1.7E-09	8.4E-10	5.0E-10	2.3E-10	1.5E+02	1.7E+02	3.4E+02	5.7E+02	6.0E+02	1.5E+02	≤ 1
Sn-121m	4.0E-02	4.6E-09	2.0E-02	2.7E-09	1.4E-09	8.2E-10	3.8E-10	8.7E+01	1.1E+02	2.0E+02	3.5E+02	3.6E+02	8.7E+01	≤ 1
Sn-123	4.0E-02	2.5E-08	2.0E-02	1.6E-08	7.8E-09	4.6E-09	2.1E-09	1.6E+01	1.8E+01	3.7E+01	6.2E+01	6.5E+01	1.6E+01	≤ 1
Sn-123m	4.0E-02	4.7E-10	2.0E-02	2.6E-10	1.3E-10	7.3E-11	3.8E-11	8.5E+02	1.1E+03	2.2E+03	3.9E+03	3.6E+03	8.5E+02	≤ 1
Sn-125	4.0E-02	3.5E-08	2.0E-02	2.2E-08	1.1E-08	6.7E-09	3.1E-09	1.1E+01	1.3E+01	2.6E+01	4.3E+01	4.4E+01	1.1E+01	≤ 1
Sn-126	4.0E-02	5.0E-08	2.0E-02	3.0E-08	1.6E-08	9.8E-09	4.7E-09	8.0E+00	9.5E+00	1.8E+01	2.9E+01	2.9E+01	8.0E+00	≤ 1
Sn-127	4.0E-02	2.0E-09	2.0E-02	1.3E-09	6.6E-10	4.0E-10	2.0E-10	2.0E+02	2.2E+02	4.3E+02	7.1E+02	6.8E+02	2.0E+02	≤ 1
Sn-128	4.0E-02	1.6E-09	2.0E-02	9.7E-10	4.9E-10	3.0E-10	1.5E-10	2.5E+02	2.9E+02	5.8E+02	9.5E+02	9.1E+02	2.5E+02	≤ 1
<b>Antimony</b>														
Sb-115	2.0E-01	2.5E-10	1.0E-01	1.5E-10	7.5E-11	4.5E-11	2.4E-11	1.6E+03	1.9E+03	3.8E+03	6.3E+03	5.7E+03	1.6E+03	≤ 1
Sb-116	2.0E-01	2.7E-10	1.0E-01	1.6E-10	8.0E-11	4.8E-11	2.6E-11	1.5E+03	1.8E+03	3.6E+03	6.0E+03	5.3E+03	1.5E+03	≤ 1
Sb-116m	2.0E-01	5.0E-10	1.0E-01	3.3E-10	1.9E-10	1.2E-10	6.7E-11	8.0E+02	8.7E+02	1.5E+03	2.4E+03	2.0E+03	8.0E+02	≤ 1
Sb-117	2.0E-01	1.6E-10	1.0E-01	1.0E-10	5.6E-11	3.5E-11	1.8E-11	2.5E+03	2.9E+03	5.1E+03	8.2E+03	7.6E+03	2.5E+03	≤ 1
Sb-118m	2.0E-01	1.3E-09	1.0E-01	1.0E-09	5.8E-10	3.9E-10	2.1E-10	3.1E+02	2.9E+02	4.9E+02	7.3E+02	6.5E+02	2.9E+02	1-2

continue

Table 1. (continue)

NUCLIDE	Committed effective dose per unit intake via ingestion (h) for members of the public Sv/Bq							Derived activity concentration in water (DWC) Bq/l					Critical concentration Bq/l	Critical age y
	AGE (g)	≤ 1 y	AGE (g)	1-2 y	2-7 y	7-10 y	>17 y	≤ 1 y	1-2 y	2-7 y	7-10 y	>17 y		
	f <sub>i</sub> for g ≤1y	h(g)	f <sub>i</sub> for g > 1y	h(g)	h(g)	h(g)	h(g)	DWC	DWC	DWC	DWC	DWC		
Sb-119	2.0E-01	8.4E-10	1.0E-01	5.8E-10	3.0E-10	1.8E-10	8.0E-11	4.8E+02	4.9E+02	9.5E+02	1.6E+03	1.7E+03	4.8E+02	≤ 1
Sb-120	2.0E-01	8.1E-09	1.0E-01	6.0E-09	3.5E-09	2.3E-09	1.2E-09	4.9E+01	4.8E+01	8.2E+01	1.2E+02	1.1E+02	4.8E+01	1-2
Sb-120	2.0E-01	1.7E-10	1.0E-01	9.4E-11	4.6E-11	2.7E-11	1.4E-11	2.4E+03	3.0E+03	6.2E+03	1.1E+04	9.8E+03	2.4E+03	≤ 1
Sb-122	2.0E-01	1.8E-08	1.0E-01	1.2E-08	6.1E-09	3.7E-09	1.7E-09	2.2E+01	2.4E+01	4.7E+01	7.7E+01	8.1E+01	2.2E+01	≤ 1
Sb-124	2.0E-01	2.5E-08	1.0E-01	1.6E-08	8.4E-09	5.2E-09	2.5E-09	1.6E+01	1.8E+01	3.4E+01	5.5E+01	5.5E+01	1.6E+01	≤ 1
Sb-124m	2.0E-01	8.5E-11	1.0E-01	4.9E-11	2.5E-11	1.5E-11	8.0E-12	4.7E+03	5.8E+03	1.1E+04	1.9E+04	1.7E+04	4.7E+03	≤ 1
Sb-125	2.0E-01	1.1E-08	1.0E-01	6.1E-09	3.4E-09	2.1E-09	1.1E-09	3.6E+01	4.7E+01	8.4E+01	1.4E+02	1.2E+02	3.6E+01	≤ 1
Sb-126	2.0E-01	2.0E-08	1.0E-01	1.4E-08	7.6E-09	4.9E-09	2.4E-09	2.0E+01	2.0E+01	3.8E+01	5.8E+01	5.7E+01	2.0E+01	≤ 1
Sb-126m	2.0E-01	3.9E-10	1.0E-01	2.2E-10	1.1E-10	6.6E-11	3.6E-11	1.0E+03	1.3E+03	2.6E+03	4.3E+03	3.8E+03	1.0E+03	≤ 1
Sb-127	2.0E-01	1.7E-08	1.0E-01	1.2E-08	5.9E-09	3.6E-09	1.7E-09	2.4E+01	2.4E+01	4.8E+01	7.9E+01	8.1E+01	2.4E+01	≤ 1
Sb-128	2.0E-01	6.3E-09	1.0E-01	4.5E-09	2.4E-09	1.5E-09	7.6E-10	6.3E+01	6.3E+01	1.2E+02	1.9E+02	1.8E+02	6.3E+01	≤ 1
Sb-128	2.0E-01	3.7E-10	1.0E-01	2.1E-10	1.0E-10	6.0E-11	3.3E-11	1.1E+03	1.4E+03	2.9E+03	4.8E+03	4.2E+03	1.1E+03	≤ 1
Sb-129	2.0E-01	4.3E-09	1.0E-01	2.8E-09	1.5E-09	8.8E-10	4.2E-10	9.3E+01	1.0E+02	1.9E+02	3.2E+02	3.3E+02	9.3E+01	≤ 1
Sb-130	2.0E-01	9.1E-10	1.0E-01	5.4E-10	2.8E-10	1.7E-10	9.1E-11	4.4E+02	5.3E+02	1.0E+03	1.7E+03	1.5E+03	4.4E+02	≤ 1
Sb-131	2.0E-01	1.1E-09	1.0E-01	7.3E-10	3.9E-10	2.1E-10	1.0E-10	3.6E+02	3.9E+02	7.3E+02	1.4E+03	1.4E+03	3.6E+02	≤ 1
<b>Tellurium</b>														
Te-116	6.0E-01	1.4E-09	3.0E-01	1.0E-09	5.5E-10	3.4E-10	1.7E-10	2.9E+02	2.9E+02	5.2E+02	8.4E+02	8.1E+02	2.9E+02	≤ 1
Te-121	6.0E-01	3.1E-09	3.0E-01	2.0E-09	1.2E-09	8.0E-10	4.3E-10	1.3E+02	1.4E+02	2.4E+02	3.6E+02	3.2E+02	1.3E+02	≤ 1
Te-121m	6.0E-01	2.7E-08	3.0E-01	1.2E-08	6.9E-09	4.2E-09	2.3E-09	1.5E+01	2.4E+01	4.1E+01	6.8E+01	6.0E+01	1.5E+01	≤ 1
Te-123	6.0E-01	2.0E-08	3.0E-01	9.3E-09	6.9E-09	5.4E-09	4.4E-09	2.0E+01	3.1E+01	4.1E+01	5.3E+01	3.1E+01	2.0E+01	≤ 1
Te-123m	6.0E-01	1.9E-08	3.0E-01	8.8E-09	4.9E-09	2.8E-09	1.4E-09	2.1E+01	3.2E+01	5.8E+01	1.0E+02	9.8E+01	2.1E+01	≤ 1
Te-125m	6.0E-01	1.3E-08	3.0E-01	6.3E-09	3.3E-09	1.9E-09	8.7E-10	3.1E+01	4.5E+01	8.7E+01	1.5E+02	1.6E+02	3.1E+01	≤ 1

continue

Table 1. (continue)

NUCLIDE	Committed effective dose per unit intake via ingestion (h) for members of the public Sv/Bq							Derived activity concentration in water (DWC) Bq/l					Critical concentration Bq/l	Critical age y
	AGE (g)	≤ 1 y	AGE (g)	1-2 y	2-7 y	7-10 y	>17 y	≤ 1 y	1-2 y	2-7 y	7-10 y	>17 y		
	f <sub>i</sub> for g ≤1y	h(g)	f <sub>i</sub> for g > 1y	h(g)	h(g)	h(g)	h(g)	DWC	DWC	DWC	DWC	DWC		
Te-127	6.0E-01	1.5E-09	3.0E-01	1.2E-09	6.2E-10	3.6E-10	1.7E-10	2.7E+02	2.4E+02	4.6E+02	7.9E+02	8.1E+02	2.4E+02	1-2
Te-127m	6.0E-01	4.1E-08	3.0E-01	1.8E-08	9.5E-09	5.2E-09	2.3E-09	9.8E+00	1.6E+01	3.0E+01	5.5E+01	6.0E+01	9.8E+00	≤ 1
Te-129	6.0E-01	7.5E-10	3.0E-01	4.4E-10	2.1E-10	1.2E-10	6.3E-11	5.3E+02	6.5E+02	1.4E+03	2.4E+03	2.2E+03	5.3E+02	≤ 1
Te-129m	6.0E-01	4.4E-08	3.0E-01	2.4E-08	1.2E-08	6.6E-09	3.0E-09	9.1E+00	1.2E+01	2.4E+01	4.3E+01	4.6E+01	9.1E+00	≤ 1
Te-131	6.0E-01	9.0E-10	3.0E-01	6.6E-10	3.5E-10	1.9E-10	8.7E-11	4.4E+02	4.3E+02	8.2E+02	1.5E+03	1.6E+03	4.3E+02	1-2
Te-131m	6.0E-01	2.0E-08	3.0E-01	1.4E-08	7.8E-09	4.3E-09	1.9E-09	2.0E+01	2.0E+01	3.7E+01	6.6E+01	7.2E+01	2.0E+01	≤ 1
Te-132	6.0E-01	4.8E-08	3.0E-01	3.0E-08	1.6E-08	8.3E-09	3.8E-09	8.3E+00	9.5E+00	1.8E+01	3.4E+01	3.6E+01	8.3E+00	≤ 1
Te-133	6.0E-01	8.4E-10	3.0E-01	6.3E-10	3.3E-10	1.6E-10	7.2E-11	4.8E+02	4.5E+02	8.7E+02	1.8E+03	1.9E+03	4.5E+02	1-2
Te-133m	6.0E-01	3.1E-09	3.0E-01	2.4E-09	1.3E-09	6.3E-10	2.8E-10	1.3E+02	1.2E+02	2.2E+02	4.5E+02	4.9E+02	1.2E+02	1-2
Te-134	6.0E-01	1.1E-09	3.0E-01	7.5E-10	3.9E-10	2.2E-10	1.1E-10	3.6E+02	3.8E+02	7.3E+02	1.3E+03	1.2E+03	3.6E+02	≤ 1
<b>Iodine</b>														
I-120	1.0E+00	3.9E-09	1.0E+00	2.8E-09	1.4E-09	7.2E-10	3.4E-10	1.0E+02	1.0E+02	2.0E+02	4.0E+02	4.0E+02	1.0E+02	1-2
I-120m	1.0E+00	2.3E-09	1.0E+00	1.5E-09	7.8E-10	4.2E-10	2.1E-10	1.7E+02	1.9E+02	3.7E+02	6.8E+02	6.5E+02	1.7E+02	≤ 1
I-121	1.0E+00	6.2E-10	1.0E+00	5.3E-10	3.1E-10	1.7E-10	8.2E-11	6.5E+02	5.4E+02	9.2E+02	1.7E+03	1.7E+03	5.4E+02	1-2
I-123	1.0E+00	2.2E-09	1.0E+00	1.9E-09	1.1E-09	4.9E-10	2.1E-10	1.8E+02	1.5E+02	2.6E+02	5.8E+02	6.5E+02	1.5E+02	1-2
I-124	1.0E+00	1.2E-07	1.0E+00	1.1E-07	6.3E-08	3.1E-08	1.3E-08	3.3E+00	2.6E+00	4.5E+00	9.2E+00	1.1E+01	2.6E+00	1-2
I-125	1.0E+00	5.2E-08	1.0E+00	5.7E-08	4.1E-08	3.1E-08	1.5E-08	7.7E+00	5.0E+00	7.0E+00	9.2E+00	9.1E+00	5.0E+00	1-2
I-126	1.0E+00	2.1E-07	1.0E+00	2.1E-07	1.3E-07	6.8E-08	2.9E-08	1.9E+00	1.4E+00	2.2E+00	4.2E+00	4.7E+00	1.4E+00	1-2
I-128	1.0E+00	5.7E-10	1.0E+00	3.3E-10	1.6E-10	8.9E-11	4.6E-11	7.0E+02	8.7E+02	1.8E+03	3.2E+03	3.0E+03	7.0E+02	≤ 1
I-129	1.0E+00	1.8E-07	1.0E+00	2.2E-07	1.7E-07	1.9E-07	1.1E-07	2.2E+00	1.3E+00	1.7E+00	1.5E+00	1.2E+00	1.2E+00	>17
I-130	1.0E+00	2.1E-08	1.0E+00	1.8E-08	9.8E-09	4.6E-09	2.0E-09	1.9E+01	1.6E+01	2.9E+01	6.2E+01	6.8E+01	1.6E+01	1-2
I-131	1.0E+00	1.8E-07	1.0E+00	1.8E-07	1.0E-07	5.2E-08	2.2E-08	2.2E+00	1.6E+00	2.9E+00	5.5E+00	6.2E+00	1.6E+00	1-2

continue

Table 1. (continue)

NUCLIDE	Committed effective dose per unit intake via ingestion (h) for members of the public Sv/Bq							Derived activity concentration in water (DWC) Bq/l					Critical concentration Bq/l	Critical age y
	AGE (g)	≤ 1 y	AGE (g)	1-2 y	2-7 y	7-10 y	>17 y	≤ 1 y	1-2 y	2-7 y	7-10 y	>17 y		
	f <sub>i</sub> for g ≤1y	h(g)	f <sub>i</sub> for g > 1y	h(g)	h(g)	h(g)	h(g)	DWC	DWC	DWC	DWC	DWC		
I-132	1.0E+00	3.0E-09	1.0E+00	2.4E-09	1.3E-09	6.2E-10	2.9E-10	1.3E+02	1.2E+02	2.2E+02	4.6E+02	4.7E+02	1.2E+02	1-2
I-132m	1.0E+00	2.4E-09	1.0E+00	2.0E-09	1.1E-09	5.0E-10	2.2E-10	1.7E+02	1.4E+02	2.6E+02	5.7E+02	6.2E+02	1.4E+02	1-2
I-133	1.0E+00	4.9E-08	1.0E+00	4.4E-08	2.3E-08	1.0E-08	4.3E-09	8.2E+00	6.5E+00	1.2E+01	2.9E+01	3.2E+01	6.5E+00	1-2
I-134	1.0E+00	1.1E-09	1.0E+00	7.5E-10	3.9E-10	2.1E-10	1.1E-10	3.6E+02	3.8E+02	7.3E+02	1.4E+03	1.2E+03	3.6E+02	≤ 1
I-135	1.0E+00	1.0E-08	1.0E+00	8.9E-09	4.7E-09	2.2E-09	9.3E-10	4.0E+01	3.2E+01	6.1E+01	1.3E+02	1.5E+02	3.2E+01	1-2
<b>Caesium</b>														
Cs-125	1.0E+00	3.9E-10	1.0E+00	2.2E-10	1.1E-10	6.5E-11	3.5E-11	1.0E+03	1.3E+03	2.6E+03	4.4E+03	3.9E+03	1.0E+03	≤ 1
Cs-127	1.0E+00	1.8E-10	1.0E+00	1.2E-10	6.6E-11	4.2E-11	2.4E-11	2.2E+03	2.4E+03	4.3E+03	6.8E+03	5.7E+03	2.2E+03	≤ 1
Cs-129	1.0E+00	4.4E-10	1.0E+00	3.0E-10	1.7E-10	1.1E-10	6.0E-11	9.1E+02	9.5E+02	1.7E+03	2.6E+03	2.3E+03	9.1E+02	≤ 1
Cs-130	1.0E+00	3.3E-10	1.0E+00	1.8E-10	9.0E-11	5.2E-11	2.8E-11	1.2E+03	1.6E+03	3.2E+03	5.5E+03	4.9E+03	1.2E+03	≤ 1
Cs-131	1.0E+00	4.6E-10	1.0E+00	2.9E-10	1.6E-10	1.0E-10	5.8E-11	8.7E+02	9.9E+02	1.8E+03	2.9E+03	2.4E+03	8.7E+02	≤ 1
Cs-132	1.0E+00	2.7E-09	1.0E+00	1.8E-09	1.1E-09	7.7E-10	5.0E-10	1.5E+02	1.6E+02	2.6E+02	3.7E+02	2.7E+02	1.5E+02	≤ 1
Cs-134	1.0E+00	2.6E-08	1.0E+00	1.6E-08	1.3E-08	1.4E-08	1.9E-08	1.5E+01	1.8E+01	2.2E+01	2.0E+01	7.2E+00	7.2E+00	>17
Cs-134m	1.0E+00	2.1E-10	1.0E+00	1.2E-10	5.9E-11	3.5E-11	2.0E-11	1.9E+03	2.4E+03	4.8E+03	8.2E+03	6.8E+03	1.9E+03	≤ 1
Cs-135	1.0E+00	4.1E-09	1.0E+00	2.3E-09	1.7E-09	1.7E-09	2.0E-09	9.8E+01	1.2E+02	1.7E+02	1.7E+02	6.8E+01	6.8E+01	>17
Cs-135m	1.0E+00	1.3E-10	1.0E+00	8.6E-11	4.9E-11	3.2E-11	1.9E-11	3.1E+03	3.3E+03	5.8E+03	8.9E+03	7.2E+03	3.1E+03	≤ 1
Cs-136	1.0E+00	1.5E-08	1.0E+00	9.5E-09	6.1E-09	4.4E-09	3.0E-09	2.7E+01	3.0E+01	4.7E+01	6.5E+01	4.6E+01	2.7E+01	≤ 1
Cs-137	1.0E+00	2.1E-08	1.0E+00	1.2E-08	9.6E-09	1.0E-08	1.3E-08	1.9E+01	2.4E+01	3.0E+01	2.9E+01	1.1E+01	1.1E+01	>17
Cs-138	1.0E+00	1.1E-09	1.0E+00	5.9E-10	2.9E-10	1.7E-10	9.2E-11	3.6E+02	4.8E+02	9.9E+02	1.7E+03	1.5E+03	3.6E+02	≤ 1
<b>Barium</b>														
Ba-126	6.0E-01	2.7E-09	2.0E-01	1.7E-09	8.5E-10	5.0E-10	2.6E-10	1.5E+02	1.7E+02	3.4E+02	5.7E+02	5.3E+02	1.5E+02	≤ 1
Ba-128	6.0E-01	2.0E-08	2.0E-01	1.7E-08	9.0E-09	5.2E-09	2.7E-09	2.0E+01	1.7E+01	3.2E+01	5.5E+01	5.1E+01	1.7E+01	1-2

continue

Table 1. (continue)

NUCLIDE	Committed effective dose per unit intake via ingestion (h) for members of the public							Derived activity concentration in water (DWC)					Critical concentration Bq/l	Critical age y
	Sv/Bq							Bq/l						
	AGE (g)	≤ 1 y	AGE (g)	1-2 y	2-7 y	7-10 y	>17 y	≤ 1 y	1-2 y	2-7 y	7-10 y	>17 y		
$f_1$ for g ≤1y	h(g)	$f_1$ for g > 1y	h(g)	h(g)	h(g)	h(g)	DWC	DWC	DWC	DWC	DWC			
Ba-131	6.0E-01	4.2E-09	2.0E-01	2.6E-09	1.4E-09	9.4E-10	4.5E-10	9.5E+01	1.1E+02	2.0E+02	3.0E+02	3.0E+02	9.5E+01	≤ 1
Ba-131m	6.0E-01	5.8E-11	2.0E-01	3.2E-11	1.6E-11	9.3E-12	4.9E-12	6.9E+03	8.9E+03	1.8E+04	3.1E+04	2.8E+04	6.9E+03	≤ 1
Ba-133	6.0E-01	2.2E-08	2.0E-01	6.2E-09	3.9E-09	4.6E-09	1.5E-09	1.8E+01	4.6E+01	7.3E+01	6.2E+01	9.1E+01	1.8E+01	≤ 1
Ba-133m	6.0E-01	4.2E-09	2.0E-01	3.6E-09	1.8E-09	1.1E-09	5.4E-10	9.5E+01	7.9E+01	1.6E+02	2.6E+02	2.5E+02	7.9E+01	1-2
Ba-135m	6.0E-01	3.3E-09	2.0E-01	2.9E-09	1.5E-09	8.5E-10	4.3E-10	1.2E+02	9.9E+01	1.9E+02	3.4E+02	3.2E+02	9.9E+01	1-2
Ba-139	6.0E-01	1.4E-09	2.0E-01	8.4E-10	4.1E-10	2.4E-10	1.2E-10	2.9E+02	3.4E+02	7.0E+02	1.2E+03	1.1E+03	2.9E+02	≤ 1
Ba-140	6.0E-01	3.2E-08	2.0E-01	1.8E-08	9.2E-09	5.8E-09	2.6E-09	1.3E+01	1.6E+01	3.1E+01	4.9E+01	5.3E+01	1.3E+01	≤ 1
Ba-141	6.0E-01	7.6E-10	2.0E-01	4.7E-10	2.3E-10	1.3E-10	7.0E-11	5.3E+02	6.1E+02	1.2E+03	2.2E+03	2.0E+03	5.3E+02	≤ 1
Ba-142	6.0E-01	3.6E-10	2.0E-01	2.2E-10	1.1E-10	6.6E-11	3.5E-11	1.1E+03	1.3E+03	2.6E+03	4.3E+03	3.9E+03	1.1E+03	≤ 1
<b>Lanthanum</b>														
La-131	5.0E-03	3.5E-10	5.0E-04	2.1E-10	1.1E-10	6.6E-11	3.5E-11	1.1E+03	1.4E+03	2.6E+03	4.3E+03	3.9E+03	1.1E+03	≤ 1
La-132	5.0E-03	3.8E-09	5.0E-04	2.4E-09	1.3E-09	7.8E-10	3.9E-10	1.1E+02	1.2E+02	2.2E+02	3.7E+02	3.5E+02	1.1E+02	≤ 1
La-135	5.0E-03	2.8E-10	5.0E-04	1.9E-10	1.0E-10	6.4E-11	3.0E-11	1.4E+03	1.5E+03	2.9E+03	4.5E+03	4.6E+03	1.4E+03	≤ 1
La-137	5.0E-03	1.1E-09	5.0E-04	4.5E-10	2.5E-10	1.6E-10	8.1E-11	3.6E+02	6.3E+02	1.1E+03	1.8E+03	1.7E+03	3.6E+02	≤ 1
La-138	5.0E-03	1.3E-08	5.0E-04	4.6E-09	2.7E-09	1.9E-09	1.1E-09	3.1E+01	6.2E+01	1.1E+02	1.5E+02	1.2E+02	3.1E+01	≤ 1
La-140	5.0E-03	2.0E-08	5.0E-04	1.3E-08	6.8E-09	4.2E-09	2.0E-09	2.0E+01	2.2E+01	4.2E+01	6.8E+01	6.8E+01	2.0E+01	≤ 1
La-141	5.0E-03	4.3E-09	5.0E-04	2.6E-09	1.3E-09	7.6E-10	3.6E-10	9.3E+01	1.1E+02	2.2E+02	3.8E+02	3.8E+02	9.3E+01	≤ 1
La-142	5.0E-03	1.9E-09	5.0E-04	1.1E-09	5.8E-10	3.5E-10	1.8E-10	2.1E+02	2.6E+02	4.9E+02	8.2E+02	7.6E+02	2.1E+02	≤ 1
La-143	5.0E-03	6.9E-10	5.0E-04	3.9E-10	1.9E-10	1.1E-10	5.6E-11	5.8E+02	7.3E+02	1.5E+03	2.6E+03	2.4E+03	5.8E+02	≤ 1
<b>Cerium</b>														
Ce-134	5.0E-03	2.8E-08	5.0E-04	1.8E-08	9.1E-09	5.5E-09	2.5E-09	1.4E+01	1.6E+01	3.1E+01	5.2E+01	5.5E+01	1.4E+01	≤ 1
Ce-135	5.0E-03	7.0E-09	5.0E-04	4.7E-09	2.6E-09	1.6E-09	7.9E-10	5.7E+01	6.1E+01	1.1E+02	1.8E+02	1.7E+02	5.7E+01	≤ 1

continue

Table 1. (continue)

NUCLIDE	Committed effective dose per unit intake via ingestion (h) for members of the public Sv/Bq							Derived activity concentration in water (DWC) Bq/l					Critical concentration Bq/l	Critical age y
	AGE (g)	≤ 1 y	AGE (g)	1-2 y	2-7 y	7-10 y	>17 y	≤ 1 y	1-2 y	2-7 y	7-10 y	>17 y		
	f <sub>1</sub> for g ≤1y	h(g)	f <sub>1</sub> for g > 1y	h(g)	h(g)	h(g)	h(g)	DWC	DWC	DWC	DWC	DWC		
Ce-137	5.0E-03	2.6E-10	5.0E-04	1.7E-10	8.8E-11	5.4E-11	2.5E-11	1.5E+03	1.7E+03	3.2E+03	5.3E+03	5.5E+03	1.5E+03	≤ 1
Ce-137m	5.0E-03	6.1E-09	5.0E-04	3.9E-09	2.0E-09	1.2E-09	5.4E-10	6.6E+01	7.3E+01	1.4E+02	2.4E+02	2.5E+02	6.6E+01	≤ 1
Ce-139	5.0E-03	2.6E-09	5.0E-04	1.6E-09	8.6E-10	5.4E-10	2.6E-10	1.5E+02	1.8E+02	3.3E+02	5.3E+02	5.3E+02	1.5E+02	≤ 1
Ce-141	5.0E-03	8.1E-09	5.0E-04	5.1E-09	2.6E-09	1.5E-09	7.1E-10	4.9E+01	5.6E+01	1.1E+02	1.9E+02	1.9E+02	4.9E+01	≤ 1
Ce-143	5.0E-03	1.2E-08	5.0E-04	8.0E-09	4.1E-09	2.4E-09	1.1E-09	3.3E+01	3.6E+01	7.0E+01	1.2E+02	1.2E+02	3.3E+01	≤ 1
Ce-144	5.0E-03	6.6E-08	5.0E-04	3.9E-08	1.9E-08	1.1E-08	5.2E-09	6.1E+00	7.3E+00	1.5E+01	2.6E+01	2.6E+01	6.1E+00	≤ 1
<b>Praseodymium</b>														
Pr-136	5.0E-03	3.7E-10	5.0E-04	2.1E-10	1.0E-10	6.1E-11	3.3E-11	1.1E+03	1.4E+03	2.9E+03	4.7E+03	4.2E+03	1.1E+03	≤ 1
Pr-137	5.0E-03	4.1E-10	5.0E-04	2.5E-10	1.3E-10	7.7E-11	4.0E-11	9.8E+02	1.1E+03	2.2E+03	3.7E+03	3.4E+03	9.8E+02	≤ 1
Pr-138m	5.0E-03	1.0E-09	5.0E-04	7.4E-10	4.1E-10	2.6E-10	1.3E-10	4.0E+02	3.9E+02	7.0E+02	1.1E+03	1.1E+03	3.9E+02	1-2
Pr-139	5.0E-03	3.2E-10	5.0E-04	2.0E-10	1.1E-10	6.5E-11	3.1E-11	1.3E+03	1.4E+03	2.6E+03	4.4E+03	4.4E+03	1.3E+03	≤ 1
Pr-142	5.0E-03	1.5E-08	5.0E-04	9.8E-09	4.9E-09	2.9E-09	1.3E-09	2.7E+01	2.9E+01	5.8E+01	9.9E+01	1.1E+02	2.7E+01	≤ 1
Pr-142m	5.0E-03	2.0E-10	5.0E-04	1.2E-10	6.2E-11	3.7E-11	1.7E-11	2.0E+03	2.4E+03	4.6E+03	7.7E+03	8.1E+03	2.0E+03	≤ 1
Pr-143	5.0E-03	1.4E-08	5.0E-04	8.7E-09	4.3E-09	2.6E-09	1.2E-09	2.9E+01	3.3E+01	6.6E+01	1.1E+02	1.1E+02	2.9E+01	≤ 1
Pr-144	5.0E-03	6.4E-10	5.0E-04	3.5E-10	1.7E-10	9.5E-11	5.0E-11	6.3E+02	8.2E+02	1.7E+03	3.0E+03	2.7E+03	6.3E+02	≤ 1
Pr-145	5.0E-03	4.7E-09	5.0E-04	2.9E-09	1.4E-09	8.5E-10	3.9E-10	8.5E+01	9.9E+01	2.0E+02	3.4E+02	3.5E+02	8.5E+01	≤ 1
Pr-147	5.0E-03	3.9E-10	5.0E-04	2.2E-10	1.1E-10	6.1E-11	3.3E-11	1.0E+03	1.3E+03	2.6E+03	4.7E+03	4.2E+03	1.0E+03	≤ 1
<b>Neodymium</b>														
Nd-136	5.0E-03	1.0E-09	5.0E-04	6.1E-10	3.1E-10	1.9E-10	9.9E-11	4.0E+02	4.7E+02	9.2E+02	1.5E+03	1.4E+03	4.0E+02	≤ 1
Nd-138	5.0E-03	7.2E-09	5.0E-04	4.5E-09	2.3E-09	1.3E-09	6.4E-10	5.6E+01	6.3E+01	1.2E+02	2.2E+02	2.1E+02	5.6E+01	≤ 1
Nd-139	5.0E-03	2.1E-10	5.0E-04	1.2E-10	6.3E-11	3.7E-11	2.0E-11	1.9E+03	2.4E+03	4.5E+03	7.7E+03	6.8E+03	1.9E+03	≤ 1
Nd-139m	5.0E-03	2.1E-09	5.0E-04	1.4E-09	7.8E-10	5.0E-10	2.5E-10	1.9E+02	2.0E+02	3.7E+02	5.7E+02	5.5E+02	1.9E+02	≤ 1

continue

Table 1. (continue)

NUCLIDE	Committed effective dose per unit intake via ingestion (h) for members of the public Sv/Bq							Derived activity concentration in water (DWC) Bq/l					Critical concentration Bq/l	Critical age y
	AGE (g)	≤ 1 y	AGE (g)	1-2 y	2-7 y	7-10 y	>17 y	≤ 1 y	1-2 y	2-7 y	7-10 y	>17 y		
	f <sub>i</sub> for g ≤1y	h(g)	f <sub>i</sub> for g > 1y	h(g)	h(g)	h(g)	h(g)	DWC	DWC	DWC	DWC	DWC		
Nd-141	5.0E-03	7.8E-11	5.0E-04	5.0E-11	2.7E-11	1.6E-11	8.3E-12	5.1E+03	5.7E+03	1.1E+04	1.8E+04	1.7E+04	5.1E+03	≤ 1
Nd-147	5.0E-03	1.2E-08	5.0E-04	7.8E-09	3.9E-09	2.3E-09	1.1E-09	3.3E+01	3.7E+01	7.3E+01	1.2E+02	1.2E+02	3.3E+01	≤ 1
Nd-149	5.0E-03	1.4E-09	5.0E-04	8.7E-10	4.3E-10	2.6E-10	1.2E-10	2.9E+02	3.3E+02	6.6E+02	1.1E+03	1.1E+03	2.9E+02	≤ 1
Nd-151	5.0E-03	3.4E-10	5.0E-04	2.0E-10	9.7E-11	5.7E-11	3.0E-11	1.2E+03	1.4E+03	2.9E+03	5.0E+03	4.6E+03	1.2E+03	≤ 1
<b>Promethium</b>														
Pm-141	5.0E-03	4.2E-10	5.0E-04	2.4E-10	1.2E-10	6.8E-11	3.6E-11	9.5E+02	1.2E+03	2.4E+03	4.2E+03	3.8E+03	9.5E+02	≤ 1
Pm-143	5.0E-03	1.9E-09	5.0E-04	1.2E-09	6.7E-10	4.4E-10	2.3E-10	2.1E+02	2.4E+02	4.3E+02	6.5E+02	6.0E+02	2.1E+02	≤ 1
Pm-144	5.0E-03	7.6E-09	5.0E-04	4.7E-09	2.7E-09	1.8E-09	9.7E-10	5.3E+01	6.1E+01	1.1E+02	1.6E+02	1.4E+02	5.3E+01	≤ 1
Pm-145	5.0E-03	1.5E-09	5.0E-04	6.8E-10	3.7E-10	2.3E-10	1.1E-10	2.7E+02	4.2E+02	7.7E+02	1.2E+03	1.2E+03	2.7E+02	≤ 1
Pm-146	5.0E-03	1.0E-08	5.0E-04	5.1E-09	2.8E-09	1.8E-09	9.0E-10	4.0E+01	5.6E+01	1.0E+02	1.6E+02	1.5E+02	4.0E+01	≤ 1
Pm-147	5.0E-03	3.6E-09	5.0E-04	1.9E-09	9.6E-10	5.7E-10	2.6E-10	1.1E+02	1.5E+02	3.0E+02	5.0E+02	5.3E+02	1.1E+02	≤ 1
Pm-148	5.0E-03	3.0E-04	5.0E-04	1.9E-08	9.7E-09	5.8E-09	2.7E-09	1.3E-03	1.5E+01	2.9E+01	4.9E+01	5.1E+01	1.3E-03	≤ 1
Pm-148m	5.0E-03	1.5E-08	5.0E-04	1.0E-08	5.5E-09	3.5E-09	1.7E-09	2.7E+01	2.9E+01	5.2E+01	8.2E+01	8.1E+01	2.7E+01	≤ 1
Pm-149	5.0E-03	1.2E-08	5.0E-04	7.4E-09	3.7E-09	2.2E-09	9.9E-10	3.3E+01	3.9E+01	7.7E+01	1.3E+02	1.4E+02	3.3E+01	≤ 1
Pm-150	5.0E-03	2.8E-09	5.0E-04	1.7E-09	8.7E-10	5.2E-10	2.6E-10	1.4E+02	1.7E+02	3.3E+02	5.5E+02	5.3E+02	1.4E+02	≤ 1
Pm-151	5.0E-03	8.0E-09	5.0E-04	5.1E-09	2.6E-09	1.6E-09	7.3E-10	5.0E+01	5.6E+01	1.1E+02	1.8E+02	1.9E+02	5.0E+01	≤ 1
<b>Samarium</b>														
Sm-141	5.0E-03	4.5E-10	5.0E-04	2.5E-10	1.3E-10	7.3E-11	3.9E-11	8.9E+02	1.1E+03	2.2E+03	3.9E+03	3.5E+03	8.9E+02	≤ 1
Sm-141m	5.0E-03	7.0E-10	5.0E-04	4.0E-10	2.0E-10	1.2E-10	6.5E-11	5.7E+02	7.1E+02	1.4E+03	2.4E+03	2.1E+03	5.7E+02	≤ 1
Sm-142	5.0E-03	2.2E-09	5.0E-04	1.3E-09	6.2E-10	3.6E-10	1.9E-10	1.8E+02	2.2E+02	4.6E+02	7.9E+02	7.2E+02	1.8E+02	≤ 1
Sm-145	5.0E-03	2.4E-09	5.0E-04	1.4E-09	7.3E-10	4.5E-10	2.1E-10	1.7E+02	2.0E+02	3.9E+02	6.3E+02	6.5E+02	1.7E+02	≤ 1
Sm-146	5.0E-03	1.5E-06	5.0E-04	1.5E-07	1.0E-07	7.0E-08	5.4E-08	2.7E-01	1.9E+00	2.9E+00	4.1E+00	2.5E+00	2.7E-01	≤ 1

continue

Table 1. (continue)

NUCLIDE	Committed effective dose per unit intake via ingestion (h) for members of the public Sv/Bq							Derived activity concentration in water (DWC) Bq/l					Critical concentration Bq/l	Critical age y
	AGE (g)	≤ 1 y	AGE (g)	1-2 y	2-7 y	7-10 y	>17 y	≤ 1 y	1-2 y	2-7 y	7-10 y	>17 y		
	f <sub>1</sub> for g ≤1y	h(g)	f <sub>1</sub> for g > 1y	h(g)	h(g)	h(g)	h(g)	DWC	DWC	DWC	DWC	DWC		
Sm-147	5.0E-03	1.4E-06	5.0E-04	1.4E-07	9.2E-08	6.4E-08	4.9E-08	2.9E-01	2.0E+00	3.1E+00	4.5E+00	2.8E+00	2.9E-01	≤ 1
Sm-151	5.0E-03	1.5E-09	5.0E-04	6.4E-10	3.3E-10	2.0E-10	9.8E-11	2.7E+02	4.5E+02	8.7E+02	1.4E+03	1.4E+03	2.7E+02	≤ 1
Sm-153	5.0E-03	8.4E-09	5.0E-04	5.4E-09	2.7E-09	1.6E-09	7.4E-10	4.8E+01	5.3E+01	1.1E+02	1.8E+02	1.9E+02	4.8E+01	≤ 1
Sm-155	5.0E-03	3.6E-10	5.0E-04	2.0E-10	9.7E-11	5.5E-11	2.9E-11	1.1E+03	1.4E+03	2.9E+03	5.2E+03	4.7E+03	1.1E+03	≤ 1
Sm-156	5.0E-03	2.8E-09	5.0E-04	1.8E-09	9.0E-10	5.4E-10	2.5E-10	1.4E+02	1.6E+02	3.2E+02	5.3E+02	5.5E+02	1.4E+02	≤ 1
<b>Europium</b>														
Eu-145	5.0E-03	5.1E-09	5.0E-04	3.7E-09	2.1E-09	1.4E-09	7.5E-10	7.8E+01	7.7E+01	1.4E+02	2.0E+02	1.8E+02	7.7E+01	1-2
Eu-146	5.0E-03	8.5E-09	5.0E-04	6.2E-09	3.6E-09	2.4E-09	1.3E-09	4.7E+01	4.6E+01	7.9E+01	1.2E+02	1.1E+02	4.6E+01	1-2
Eu-147	5.0E-03	3.7E-09	5.0E-04	2.5E-09	1.4E-09	8.9E-10	4.4E-10	1.1E+02	1.1E+02	2.0E+02	3.2E+02	3.1E+02	1.1E+02	≤ 1
Eu-148	5.0E-03	8.5E-09	5.0E-04	6.0E-09	3.5E-09	2.4E-09	1.3E-09	4.7E+01	4.8E+01	8.2E+01	1.2E+02	1.1E+02	4.7E+01	≤ 1
Eu-149	5.0E-03	9.7E-10	5.0E-04	6.3E-10	3.4E-10	2.1E-10	1.0E-10	4.1E+02	4.5E+02	8.4E+02	1.4E+03	1.4E+03	4.1E+02	≤ 1
Eu-150	5.0E-03	1.3E-08	5.0E-04	5.7E-09	3.4E-09	2.3E-09	1.3E-09	3.1E+01	5.0E+01	8.4E+01	1.2E+02	1.1E+02	3.1E+01	≤ 1
Eu-150	5.0E-03	4.4E-09	5.0E-04	2.8E-09	1.4E-09	8.2E-10	3.8E-10	9.1E+01	1.0E+02	2.0E+02	3.5E+02	3.6E+02	9.1E+01	≤ 1
Eu-152	5.0E-03	1.6E-08	5.0E-04	7.4E-09	4.1E-09	2.6E-09	1.4E-09	2.5E+01	3.9E+01	7.0E+01	1.1E+02	9.8E+01	2.5E+01	≤ 1
Eu-152m	5.0E-03	5.7E-09	5.0E-04	3.6E-09	1.8E-09	1.1E-09	5.0E-10	7.0E+01	7.9E+01	1.6E+02	2.6E+02	2.7E+02	7.0E+01	≤ 1
Eu-154	5.0E-03	2.5E-08	5.0E-04	1.2E-08	6.5E-09	4.1E-09	2.0E-09	1.6E+01	2.4E+01	4.4E+01	7.0E+01	6.8E+01	1.6E+01	≤ 1
Eu-155	5.0E-03	4.3E-09	5.0E-04	2.2E-09	1.1E-09	6.8E-10	3.2E-10	9.3E+01	1.3E+02	2.6E+02	4.2E+02	4.3E+02	9.3E+01	≤ 1
Eu-156	5.0E-03	2.2E-08	5.0E-04	1.5E-08	7.5E-09	4.6E-09	2.2E-09	1.8E+01	1.9E+01	3.8E+01	6.2E+01	6.2E+01	1.8E+01	≤ 1
Eu-157	5.0E-03	6.7E-09	5.0E-04	4.3E-09	2.2E-09	1.3E-09	6.0E-10	6.0E+01	6.6E+01	1.3E+02	2.2E+02	2.3E+02	6.0E+01	≤ 1
Eu-158	5.0E-03	1.1E-09	5.0E-04	6.2E-10	3.1E-10	1.8E-10	9.4E-11	3.6E+02	4.6E+02	9.2E+02	1.6E+03	1.5E+03	3.6E+02	≤ 1
<b>Gadolinium</b>														
Gd-145	5.0E-03	4.5E-10	5.0E-04	2.6E-10	1.3E-10	8.1E-11	4.4E-11	8.9E+02	1.1E+03	2.2E+03	3.5E+03	3.1E+03	8.9E+02	≤ 1

continue

Table 1. (continue)

NUCLIDE	Committed effective dose per unit intake via ingestion (h) for members of the public Sv/Bq							Derived activity concentration in water (DWC) Bq/l					Critical concentration Bq/l	Critical age y
	AGE (g)	≤ 1 y	AGE (g)	1-2 y	2-7 y	7-10 y	>17 y	≤ 1 y	1-2 y	2-7 y	7-10 y	>17 y		
	f <sub>1</sub> for g ≤1y	h(g)	f <sub>1</sub> for g > 1y	h(g)	h(g)	h(g)	h(g)	DWC	DWC	DWC	DWC	DWC		
Gd-146	5.0E-03	9.4E-09	5.0E-04	6.0E-09	3.2E-09	2.0E-09	9.6E-10	4.3E+01	4.8E+01	8.9E+01	1.4E+02	1.4E+02	4.3E+01	≤ 1
Gd-147	5.0E-03	4.5E-09	5.0E-04	3.2E-09	1.8E-09	1.2E-09	6.1E-10	8.9E+01	8.9E+01	1.6E+02	2.4E+02	2.2E+02	8.9E+01	≤ 1
Gd-148	5.0E-03	1.7E-06	5.0E-04	1.6E-07	1.1E-07	7.3E-08	6.6E-08	2.4E-01	1.8E+00	2.6E+00	3.9E+00	2.1E+00	2.4E-01	≤ 1
Gd-149	5.0E-03	4.0E-09	5.0E-04	2.7E-09	1.5E-09	9.3E-10	4.5E-10	1.0E+02	1.1E+02	1.9E+02	3.1E+02	3.0E+02	1.0E+02	≤ 1
Gd-151	5.0E-03	2.1E-09	5.0E-04	1.3E-09	6.8E-10	4.2E-10	2.0E-10	1.9E+02	2.2E+02	4.2E+02	6.8E+02	6.8E+02	1.9E+02	≤ 1
Gd-152	5.0E-03	1.2E-06	5.0E-04	1.2E-07	7.7E-08	5.3E-08	4.1E-08	3.3E-01	2.4E+00	3.7E+00	5.4E+00	3.3E+00	3.3E-01	≤ 1
Gd-153	5.0E-03	2.9E-09	5.0E-04	1.8E-09	9.4E-10	5.8E-10	2.7E-10	1.4E+02	1.6E+02	3.0E+02	4.9E+02	5.1E+02	1.4E+02	≤ 1
Gd-159	5.0E-03	5.7E-09	5.0E-04	3.6E-09	1.8E-09	1.1E-09	4.9E-10	7.0E+01	7.9E+01	1.6E+02	2.6E+02	2.8E+02	7.0E+01	≤ 1
<b>Terbium</b>														
Tb-147	5.0E-03	1.5E-09	5.0E-04	1.0E-09	5.4E-10	3.3E-10	1.6E-10	2.7E+02	2.9E+02	5.3E+02	8.7E+02	8.6E+02	2.7E+02	≤ 1
Tb-149	5.0E-03	2.4E-09	5.0E-04	1.5E-09	8.0E-10	5.0E-10	2.5E-10	1.7E+02	1.9E+02	3.6E+02	5.7E+02	5.5E+02	1.7E+02	≤ 1
Tb-150	5.0E-03	2.5E-09	5.0E-04	1.6E-09	8.3E-10	5.1E-10	2.5E-10	1.6E+02	1.8E+02	3.4E+02	5.6E+02	5.5E+02	1.6E+02	≤ 1
Tb-151	5.0E-03	2.7E-09	5.0E-04	1.9E-09	1.0E-09	6.7E-10	3.4E-10	1.5E+02	1.5E+02	2.9E+02	4.3E+02	4.0E+02	1.5E+02	≤ 1
Tb-153	5.0E-03	2.3E-09	5.0E-04	1.5E-09	8.2E-10	5.1E-10	2.5E-10	1.7E+02	1.9E+02	3.5E+02	5.6E+02	5.5E+02	1.7E+02	≤ 1
Tb-154	5.0E-03	4.7E-09	5.0E-04	3.4E-09	1.9E-09	1.3E-09	6.5E-10	8.5E+01	8.4E+01	1.5E+02	2.2E+02	2.1E+02	8.4E+01	1-2
Tb-155	5.0E-03	1.9E-09	5.0E-04	1.3E-09	6.8E-10	4.3E-10	2.1E-10	2.1E+02	2.2E+02	4.2E+02	6.6E+02	6.5E+02	2.1E+02	≤ 1
Tb-156	5.0E-03	9.0E-09	5.0E-04	6.3E-09	3.5E-09	2.3E-09	1.2E-09	4.4E+01	4.5E+01	8.2E+01	1.2E+02	1.1E+02	4.4E+01	≤ 1
Tb-156m	5.0E-03	1.5E-09	5.0E-04	1.0E-09	5.6E-10	3.5E-10	1.7E-10	2.7E+02	2.9E+02	5.1E+02	8.2E+02	8.1E+02	2.7E+02	≤ 1
Tb-156m	5.0E-03	8.0E-10	5.0E-04	5.2E-10	2.7E-10	1.7E-10	8.1E-11	5.0E+02	5.5E+02	1.1E+03	1.7E+03	1.7E+03	5.0E+02	≤ 1
Tb-157	5.0E-03	4.9E-10	5.0E-04	2.2E-10	1.1E-10	6.8E-11	3.4E-11	8.2E+02	1.3E+03	2.6E+03	4.2E+03	4.0E+03	8.2E+02	≤ 1
Tb-158	5.0E-03	1.3E-08	5.0E-04	5.9E-09	3.3E-09	2.1E-09	1.1E-09	3.1E+01	4.8E+01	8.7E+01	1.4E+02	1.2E+02	3.1E+01	≤ 1
Tb-160	5.0E-03	1.6E-08	5.0E-04	1.0E-08	5.4E-09	3.3E-09	1.6E-09	2.5E+01	2.9E+01	5.3E+01	8.7E+01	8.6E+01	2.5E+01	≤ 1

continue

Table 1. (continue)

NUCLIDE	Committed effective dose per unit intake via ingestion (h) for members of the public Sv/Bq							Derived activity concentration in water (DWC) Bq/l					Critical concentration Bq/l	Critical age y
	AGE (g)	≤ 1 y	AGE (g)	1-2 y	2-7 y	7-10 y	>17 y	≤ 1 y	1-2 y	2-7 y	7-10 y	>17 y		
	f <sub>1</sub> for g ≤1y	h(g)	f <sub>1</sub> for g > 1y	h(g)	h(g)	h(g)	h(g)	DWC	DWC	DWC	DWC	DWC		
Tb-161	5.0E-03	8.3E-09	5.0E-04	5.3E-09	2.7E-09	1.6E-09	7.2E-10	4.8E+01	5.4E+01	1.1E+02	1.8E+02	1.9E+02	4.8E+01	≤ 1
<b>Dysprosium</b>														
Dy-155	5.0E-03	9.7E-10	5.0E-04	6.8E-10	3.8E-10	2.5E-10	1.3E-10	4.1E+02	4.2E+02	7.5E+02	1.1E+03	1.1E+03	4.1E+02	≤ 1
Dy-157	5.0E-03	4.4E-10	5.0E-04	3.1E-10	1.8E-10	1.2E-10	6.1E-11	9.1E+02	9.2E+02	1.6E+03	2.4E+03	2.2E+03	9.1E+02	≤ 1
Dy-159	5.0E-03	1.0E-09	5.0E-04	6.4E-10	3.4E-10	2.1E-10	1.0E-10	4.0E+02	4.5E+02	8.4E+02	1.4E+03	1.4E+03	4.0E+02	≤ 1
Dy-165	5.0E-03	1.3E-09	5.0E-04	7.9E-10	3.9E-10	2.3E-10	1.1E-10	3.1E+02	3.6E+02	7.3E+02	1.2E+03	1.2E+03	3.1E+02	≤ 1
Dy-166	5.0E-03	1.9E-08	5.0E-04	1.2E-08	6.0E-09	3.6E-09	1.6E-09	2.1E+01	2.4E+01	4.8E+01	7.9E+01	8.6E+01	2.1E+01	≤ 1
<b>Holmium</b>														
Ho-155	5.0E-03	3.8E-10	5.0E-04	2.3E-10	1.2E-10	7.1E-11	3.7E-11	1.1E+03	1.2E+03	2.4E+03	4.0E+03	3.7E+03	1.1E+03	≤ 1
Ho-157	5.0E-03	5.8E-11	5.0E-04	3.6E-11	1.9E-11	1.2E-11	6.5E-12	6.9E+03	7.9E+03	1.5E+04	2.4E+04	2.1E+04	6.9E+03	≤ 1
Ho-159	5.0E-03	7.1E-11	5.0E-04	4.3E-11	2.3E-11	1.4E-11	7.9E-12	5.6E+03	6.6E+03	1.2E+04	2.0E+04	1.7E+04	5.6E+03	≤ 1
Ho-161	5.0E-03	1.4E-10	5.0E-04	8.1E-11	4.2E-11	2.5E-11	1.3E-11	2.9E+03	3.5E+03	6.8E+03	1.1E+04	1.1E+04	2.9E+03	≤ 1
Ho-162	5.0E-03	3.5E-11	5.0E-04	2.0E-11	1.0E-11	6.0E-12	3.3E-12	1.1E+04	1.4E+04	2.9E+04	4.8E+04	4.2E+04	1.1E+04	≤ 1
Ho-162m	5.0E-03	2.4E-10	5.0E-04	1.5E-10	7.9E-11	4.9E-11	2.6E-11	1.7E+03	1.9E+03	3.6E+03	5.8E+03	5.3E+03	1.7E+03	≤ 1
Ho-164	5.0E-03	1.2E-10	5.0E-04	6.5E-11	3.2E-11	1.8E-11	9.5E-12	3.3E+03	4.4E+03	8.9E+03	1.6E+04	1.4E+04	3.3E+03	≤ 1
Ho-164m	5.0E-03	2.0E-10	5.0E-04	1.1E-10	5.5E-11	3.2E-11	1.6E-11	2.0E+03	2.6E+03	5.2E+03	8.9E+03	8.6E+03	2.0E+03	≤ 1
Ho-166	5.0E-03	1.6E-08	5.0E-04	1.0E-08	5.2E-09	3.1E-09	1.4E-09	2.5E+01	2.9E+01	5.5E+01	9.2E+01	9.8E+01	2.5E+01	≤ 1
Ho-166m	5.0E-03	2.6E-08	5.0E-04	9.3E-09	5.3E-09	3.5E-09	2.0E-09	1.5E+01	3.1E+01	5.4E+01	8.2E+01	6.8E+01	1.5E+01	≤ 1
Ho-167	5.0E-03	8.8E-10	5.0E-04	5.5E-10	2.8E-10	1.7E-10	8.3E-11	4.5E+02	5.2E+02	1.0E+03	1.7E+03	1.7E+03	4.5E+02	≤ 1
<b>Erbium</b>														
Er-161	5.0E-03	6.5E-10	5.0E-04	4.4E-10	2.4E-10	1.6E-10	8.0E-11	6.2E+02	6.5E+02	1.2E+03	1.8E+03	1.7E+03	6.2E+02	≤ 1
Er-165	5.0E-03	1.7E-10	5.0E-04	1.1E-10	6.2E-11	3.9E-11	1.9E-11	2.4E+03	2.6E+03	4.6E+03	7.3E+03	7.2E+03	2.4E+03	≤ 1

continue

Table 1. (continue)

NUCLIDE	Committed effective dose per unit intake via ingestion (h) for members of the public Sv/Bq							Derived activity concentration in water (DWC) Bq/l					Critical concentration Bq/l	Critical age y
	AGE (g)	≤ 1 y	AGE (g)	1-2 y	2-7 y	7-10 y	>17 y	≤ 1 y	1-2 y	2-7 y	7-10 y	>17 y		
	f <sub>i</sub> for g ≤1y	h(g)	f <sub>i</sub> for g > 1y	h(g)	h(g)	h(g)	h(g)	DWC	DWC	DWC	DWC	DWC		
Er-169	5.0E-03	4.4E-09	5.0E-04	2.8E-09	1.4E-09	8.2E-10	3.7E-10	9.1E+01	1.0E+02	2.0E+02	3.5E+02	3.7E+02	9.1E+01	≤ 1
Er-171	5.0E-03	4.0E-09	5.0E-04	2.5E-09	1.3E-09	7.6E-10	3.6E-10	1.0E+02	1.1E+02	2.2E+02	3.8E+02	3.8E+02	1.0E+02	≤ 1
Er-172	5.0E-03	1.0E-08	5.0E-04	6.8E-09	3.5E-09	2.1E-09	1.0E-09	4.0E+01	4.2E+01	8.2E+01	1.4E+02	1.4E+02	4.0E+01	≤ 1
<b>Thulium</b>														
Tm-162	5.0E-03	2.9E-10	5.0E-04	1.7E-10	8.7E-11	5.2E-11	2.9E-11	1.4E+03	1.7E+03	3.3E+03	5.5E+03	4.7E+03	1.4E+03	≤ 1
Tm-166	5.0E-03	2.1E-09	5.0E-04	1.5E-09	8.3E-10	5.5E-10	2.8E-10	1.9E+02	1.9E+02	3.4E+02	5.2E+02	4.9E+02	1.9E+02	≤ 1
Tm-167	5.0E-03	6.0E-09	5.0E-04	3.9E-09	2.0E-09	1.2E-09	5.6E-10	6.7E+01	7.3E+01	1.4E+02	2.4E+02	2.4E+02	6.7E+01	≤ 1
Tm-170	5.0E-03	1.6E-08	5.0E-04	9.8E-09	4.9E-09	2.9E-09	1.3E-09	2.5E+01	2.9E+01	5.8E+01	9.9E+01	1.1E+02	2.5E+01	≤ 1
Tm-171	5.0E-03	1.5E-09	5.0E-04	7.8E-10	3.9E-10	2.3E-10	1.1E-10	2.7E+02	3.7E+02	7.3E+02	1.2E+03	1.2E+03	2.7E+02	≤ 1
Tm-172	5.0E-03	1.9E-08	5.0E-04	1.2E-08	6.1E-09	3.7E-09	1.7E-09	2.1E+01	2.4E+01	4.7E+01	7.7E+01	8.1E+01	2.1E+01	≤ 1
Tm-173	5.0E-03	3.3E-09	5.0E-04	2.1E-09	1.1E-09	6.5E-10	3.1E-10	1.2E+02	1.4E+02	2.6E+02	4.4E+02	4.4E+02	1.2E+02	≤ 1
Tm-175	5.0E-03	3.1E-10	5.0E-04	1.7E-10	8.6E-11	5.0E-11	2.7E-11	1.3E+03	1.7E+03	3.3E+03	5.7E+03	5.1E+03	1.3E+03	≤ 1
<b>Ytterbium</b>														
Yb-162	5.0E-03	2.2E-10	5.0E-04	1.3E-10	6.9E-11	4.2E-11	2.3E-11	1.8E+03	2.2E+03	4.1E+03	6.8E+03	6.0E+03	1.8E+03	≤ 1
Yb-166	5.0E-03	7.7E-09	5.0E-04	5.4E-09	2.9E-09	1.9E-09	9.5E-10	5.2E+01	5.3E+01	9.9E+01	1.5E+02	1.4E+02	5.2E+01	≤ 1
Yb-167	5.0E-03	7.0E-11	5.0E-04	4.1E-11	2.1E-11	1.2E-11	6.7E-12	5.7E+03	7.0E+03	1.4E+04	2.4E+04	2.0E+04	5.7E+03	≤ 1
Yb-169	5.0E-03	7.1E-09	5.0E-04	4.6E-09	2.4E-09	1.5E-09	7.1E-10	5.6E+01	6.2E+01	1.2E+02	1.9E+02	1.9E+02	5.6E+01	≤ 1
Yb-175	5.0E-03	5.0E-09	5.0E-04	3.2E-09	1.6E-09	9.5E-10	4.4E-10	8.0E+01	8.9E+01	1.8E+02	3.0E+02	3.1E+02	8.0E+01	≤ 1
Yb-177	5.0E-03	1.0E-09	5.0E-04	6.8E-10	3.4E-10	2.0E-10	8.8E-11	4.0E+02	4.2E+02	8.4E+02	1.4E+03	1.6E+03	4.0E+02	≤ 1
Yb-178	5.0E-03	1.4E-09	5.0E-04	8.4E-10	4.2E-10	2.4E-10	1.2E-10	2.9E+02	3.4E+02	6.8E+02	1.2E+03	1.1E+03	2.9E+02	≤ 1
<b>Lutetium</b>														
Lu-169	5.0E-03	3.5E-09	5.0E-04	2.4E-09	1.4E-09	8.9E-10	4.6E-10	1.1E+02	1.2E+02	2.0E+02	3.2E+02	3.0E+02	1.1E+02	≤ 1

continue

Table 1. (continue)

NUCLIDE	Committed effective dose per unit intake via ingestion (h) for members of the public Sv/Bq							Derived activity concentration in water (DWC) Bq/l					Critical concentration Bq/l	Critical age y
	AGE (g)	≤ 1 y	AGE (g)	1-2 y	2-7 y	7-10 y	>17 y	≤ 1 y	1-2 y	2-7 y	7-10 y	>17 y		
	f <sub>1</sub> for g ≤1y	h(g)	f <sub>1</sub> for g > 1y	h(g)	h(g)	h(g)	h(g)	DWC	DWC	DWC	DWC	DWC		
Lu-170	5.0E-03	7.4E-09	5.0E-04	5.2E-09	2.9E-09	1.9E-09	9.9E-10	5.4E+01	5.5E+01	9.9E+01	1.5E+02	1.4E+02	5.4E+01	≤ 1
Lu-171	5.0E-03	5.9E-09	5.0E-04	4.0E-09	2.2E-09	1.4E-09	6.7E-10	6.8E+01	7.1E+01	1.3E+02	2.0E+02	2.0E+02	6.8E+01	≤ 1
Lu-172	5.0E-03	1.0E-08	5.0E-04	7.0E-09	3.9E-09	2.5E-09	1.3E-09	4.0E+01	4.1E+01	7.3E+01	1.1E+02	1.1E+02	4.0E+01	≤ 1
Lu-173	5.0E-03	2.7E-09	5.0E-04	1.6E-09	8.6E-10	5.3E-10	2.6E-10	1.5E+02	1.8E+02	3.3E+02	5.4E+02	5.3E+02	1.5E+02	≤ 1
Lu-174	5.0E-03	3.2E-09	5.0E-04	1.7E-09	9.1E-10	5.6E-10	2.7E-10	1.3E+02	1.7E+02	3.1E+02	5.1E+02	5.1E+02	1.3E+02	≤ 1
Lu-174m	5.0E-03	6.2E-09	5.0E-04	3.8E-09	1.9E-09	1.1E-09	5.3E-10	6.5E+01	7.5E+01	1.5E+02	2.6E+02	2.6E+02	6.5E+01	≤ 1
Lu-176	5.0E-03	2.4E-08	5.0E-04	1.1E-08	5.7E-09	3.5E-09	1.8E-09	1.7E+01	2.6E+01	5.0E+01	8.2E+01	7.6E+01	1.7E+01	≤ 1
Lu-176m	5.0E-03	2.0E-09	5.0E-04	1.2E-09	6.0E-10	3.5E-10	1.7E-10	2.0E+02	2.4E+02	4.8E+02	8.2E+02	8.1E+02	2.0E+02	≤ 1
Lu-177	5.0E-03	6.1E-09	5.0E-04	3.9E-09	2.0E-09	1.2E-09	5.3E-10	6.6E+01	7.3E+01	1.4E+02	2.4E+02	2.6E+02	6.6E+01	≤ 1
Lu-177m	5.0E-03	1.7E-08	5.0E-04	1.1E-08	5.8E-09	3.6E-09	1.7E-09	2.4E+01	2.6E+01	4.9E+01	7.9E+01	8.1E+01	2.4E+01	≤ 1
Lu-178	5.0E-03	5.9E-10	5.0E-04	3.3E-10	1.6E-10	9.0E-11	4.7E-11	6.8E+02	8.7E+02	1.8E+03	3.2E+03	2.9E+03	6.8E+02	≤ 1
Lu-178m	5.0E-03	4.3E-10	5.0E-04	2.4E-10	1.2E-10	7.1E-11	3.8E-11	9.3E+02	1.2E+03	2.4E+03	4.0E+03	3.6E+03	9.3E+02	≤ 1
Lu-179	5.0E-03	2.4E-09	5.0E-04	1.5E-09	7.5E-10	4.4E-10	2.1E-10	1.7E+02	1.9E+02	3.8E+02	6.5E+02	6.5E+02	1.7E+02	≤ 1
<b>Hafnium</b>														
Hf-170	2.0E-02	3.9E-09	2.0E-03	2.7E-09	1.5E-09	9.5E-10	4.8E-10	1.0E+02	1.1E+02	1.9E+02	3.0E+02	2.9E+02	1.0E+02	≤ 1
Hf-172	2.0E-02	1.9E-08	2.0E-03	6.1E-09	3.3E-09	2.0E-09	1.0E-09	2.1E+01	4.7E+01	8.7E+01	1.4E+02	1.4E+02	2.1E+01	≤ 1
Hf-173	2.0E-02	1.9E-09	2.0E-03	1.3E-09	7.2E-10	4.6E-10	2.3E-10	2.1E+02	2.2E+02	4.0E+02	6.2E+02	6.0E+02	2.1E+02	≤ 1
Hf-175	2.0E-02	3.8E-09	2.0E-03	2.4E-09	1.3E-09	8.4E-10	4.1E-10	1.1E+02	1.2E+02	2.2E+02	3.4E+02	3.3E+02	1.1E+02	≤ 1
Hf-177m	2.0E-02	7.8E-10	2.0E-03	4.7E-10	2.5E-10	1.5E-10	8.1E-11	5.1E+02	6.1E+02	1.1E+03	1.9E+03	1.7E+03	5.1E+02	≤ 1
Hf-178m	2.0E-02	7.0E-08	2.0E-03	1.9E-08	1.1E-08	7.8E-09	4.7E-09	5.7E+00	1.5E+01	2.6E+01	3.7E+01	2.9E+01	5.7E+00	≤ 1
Hf-179m	2.0E-02	1.2E-08	2.0E-03	7.8E-09	4.1E-09	2.6E-09	1.2E-09	3.3E+01	3.7E+01	7.0E+01	1.1E+02	1.1E+02	3.3E+01	≤ 1
Hf-180m	2.0E-02	1.4E-09	2.0E-03	9.7E-10	5.3E-10	3.3E-10	1.7E-10	2.9E+02	2.9E+02	5.4E+02	8.7E+02	8.1E+02	2.9E+02	≤ 1

continue

Table 1. (continue)

NUCLIDE	Committed effective dose per unit intake via ingestion (h) for members of the public Sv/Bq							Derived activity concentration in water (DWC) Bq/l					Critical concentration Bq/l	Critical age y
	AGE (g)	≤ 1 y	AGE (g)	1-2 y	2-7 y	7-10 y	>17 y	≤ 1 y	1-2 y	2-7 y	7-10 y	>17 y		
	f <sub>1</sub> for g ≤1y	h(g)	f <sub>1</sub> for g > 1y	h(g)	h(g)	h(g)	h(g)	DWC	DWC	DWC	DWC	DWC		
Hf-181	2.0E-02	1.2E-08	2.0E-03	7.4E-09	3.8E-09	2.3E-09	1.1E-09	3.3E+01	3.9E+01	7.5E+01	1.2E+02	1.2E+02	3.3E+01	≤ 1
Hf-182	2.0E-02	5.6E-08	2.0E-03	7.9E-09	5.4E-09	4.0E-09	3.0E-09	7.1E+00	3.6E+01	5.3E+01	7.1E+01	4.6E+01	7.1E+00	≤ 1
Hf-182m	2.0E-02	4.1E-10	2.0E-03	2.5E-10	1.3E-10	7.8E-11	4.2E-11	9.8E+02	1.1E+03	2.2E+03	3.7E+03	3.3E+03	9.8E+02	≤ 1
Hf-183	2.0E-02	8.1E-10	2.0E-03	4.8E-10	2.4E-10	1.4E-10	7.3E-11	4.9E+02	6.0E+02	1.2E+03	2.0E+03	1.9E+03	4.9E+02	≤ 1
Hf-184	2.0E-02	5.5E-09	2.0E-03	3.6E-09	1.8E-09	1.1E-09	5.2E-10	7.3E+01	7.9E+01	1.6E+02	2.6E+02	2.6E+02	7.3E+01	≤ 1
<b>Tantalum</b>														
Ta-172	1.0E-02	5.5E-10	1.0E-03	3.2E-10	1.6E-10	9.8E-11	5.3E-11	7.3E+02	8.9E+02	1.8E+03	2.9E+03	2.6E+03	7.3E+02	≤ 1
Ta-173	1.0E-02	2.0E-09	1.0E-03	1.3E-09	6.5E-10	3.9E-10	1.9E-10	2.0E+02	2.2E+02	4.4E+02	7.3E+02	7.2E+02	2.0E+02	≤ 1
Ta-174	1.0E-02	6.2E-10	1.0E-03	3.7E-10	1.9E-10	1.1E-10	5.7E-11	6.5E+02	7.7E+02	1.5E+03	2.6E+03	2.4E+03	6.5E+02	≤ 1
Ta-175	1.0E-02	1.6E-09	1.0E-03	1.1E-09	6.2E-10	4.0E-10	2.1E-10	2.5E+02	2.6E+02	4.6E+02	7.1E+02	6.5E+02	2.5E+02	≤ 1
Ta-176	1.0E-02	2.4E-09	1.0E-03	1.7E-09	9.2E-10	6.1E-10	3.1E-10	1.7E+02	1.7E+02	3.1E+02	4.7E+02	4.4E+02	1.7E+02	≤ 1
Ta-177	1.0E-02	1.0E-09	1.0E-03	6.9E-10	3.6E-10	2.2E-10	1.1E-10	4.0E+02	4.1E+02	7.9E+02	1.3E+03	1.2E+03	4.0E+02	≤ 1
Ta-178	1.0E-02	6.3E-10	1.0E-03	4.5E-10	2.4E-10	1.5E-10	7.2E-11	6.3E+02	6.3E+02	1.2E+03	1.9E+03	1.9E+03	6.3E+02	≤ 1
Ta-179	1.0E-02	6.2E-10	1.0E-03	4.1E-10	2.2E-10	1.3E-10	6.5E-11	6.5E+02	7.0E+02	1.3E+03	2.2E+03	2.1E+03	6.5E+02	≤ 1
Ta-180	1.0E-02	8.1E-09	1.0E-03	5.3E-09	2.8E-09	1.7E-09	8.4E-10	4.9E+01	5.4E+01	1.0E+02	1.7E+02	1.6E+02	4.9E+01	≤ 1
Ta-180m	1.0E-02	5.8E-10	1.0E-03	3.7E-10	1.9E-10	1.1E-10	5.4E-11	6.9E+02	7.7E+02	1.5E+03	2.6E+03	2.5E+03	6.9E+02	≤ 1
Ta-182	1.0E-02	1.4E-08	1.0E-03	9.4E-09	5.0E-09	3.1E-09	1.5E-09	2.9E+01	3.0E+01	5.7E+01	9.2E+01	9.1E+01	2.9E+01	≤ 1
Ta-182m	1.0E-02	1.4E-10	1.0E-03	7.5E-11	3.7E-11	2.1E-11	1.2E-11	2.9E+03	3.8E+03	7.7E+03	1.4E+04	1.1E+04	2.9E+03	≤ 1
Ta-183	1.0E-02	1.4E-08	1.0E-03	9.3E-09	4.7E-09	2.8E-09	1.3E-09	2.9E+01	3.1E+01	6.1E+01	1.0E+02	1.1E+02	2.9E+01	≤ 1
Ta-184	1.0E-02	6.7E-09	1.0E-03	4.4E-09	2.3E-09	1.4E-09	6.8E-10	6.0E+01	6.5E+01	1.2E+02	2.0E+02	2.0E+02	6.0E+01	≤ 1
Ta-185	1.0E-02	8.3E-10	1.0E-03	4.6E-10	2.3E-10	1.3E-10	6.8E-11	4.8E+02	6.2E+02	1.2E+03	2.2E+03	2.0E+03	4.8E+02	≤ 1
Ta-186	1.0E-02	3.8E-10	1.0E-03	2.1E-10	1.1E-10	6.1E-11	3.3E-11	1.1E+03	1.4E+03	2.6E+03	4.7E+03	4.2E+03	1.1E+03	≤ 1

continue

Table 1. (continue)

NUCLIDE	Committed effective dose per unit intake via ingestion (h) for members of the public Sv/Bq							Derived activity concentration in water (DWC) Bq/l					Critical concentration Bq/l	Critical age y
	AGE (g)	≤ 1 y	AGE (g)	1-2 y	2-7 y	7-10 y	>17 y	≤ 1 y	1-2 y	2-7 y	7-10 y	>17 y		
	f <sub>1</sub> for g ≤1y	h(g)	f <sub>1</sub> for g > 1y	h(g)	h(g)	h(g)	h(g)	DWC	DWC	DWC	DWC	DWC		
<b>Tungsten</b>														
W-176	6.0E-01	6.8E-10	3.0E-01	5.5E-10	3.0E-10	2.0E-10	1.0E-10	5.9E+02	5.2E+02	9.5E+02	1.4E+03	1.4E+03	5.2E+02	1-2
W-177	6.0E-01	4.4E-10	3.0E-01	3.2E-10	1.7E-10	1.1E-10	5.8E-11	9.1E+02	8.9E+02	1.7E+03	2.6E+03	2.4E+03	8.9E+02	1-2
W-178	6.0E-01	1.8E-09	3.0E-01	1.4E-09	7.3E-10	4.5E-10	2.2E-10	2.2E+02	2.0E+02	3.9E+02	6.3E+02	6.2E+02	2.0E+02	1-2
W-179	6.0E-01	3.4E-11	3.0E-01	2.0E-11	1.0E-11	6.2E-12	3.3E-12	1.2E+04	1.4E+04	2.9E+04	4.6E+04	4.2E+04	1.2E+04	≤ 1
W-181	6.0E-01	6.3E-10	3.0E-01	4.7E-10	2.5E-10	1.6E-10	7.6E-11	6.3E+02	6.1E+02	1.1E+03	1.8E+03	1.8E+03	6.1E+02	1-2
W-185	6.0E-01	4.4E-09	3.0E-01	3.3E-09	1.6E-09	9.7E-10	4.4E-10	9.1E+01	8.7E+01	1.8E+02	2.9E+02	3.1E+02	8.7E+01	1-2
W-187	6.0E-01	5.5E-09	3.0E-01	4.3E-09	2.2E-09	1.3E-09	6.3E-10	7.3E+01	6.6E+01	1.3E+02	2.2E+02	2.2E+02	6.6E+01	1-2
W-188	6.0E-01	2.1E-08	3.0E-01	1.5E-08	7.7E-09	4.6E-09	2.1E-09	1.9E+01	1.9E+01	3.7E+01	6.2E+01	6.5E+01	1.9E+01	≤ 1
<b>Rhenium</b>														
Re-177	1.0E+00	2.5E-10	8.0E-01	1.4E-10	7.2E-11	4.1E-11	2.2E-11	1.6E+03	2.0E+03	4.0E+03	7.0E+03	6.2E+03	1.6E+03	≤ 1
Re-178	1.0E+00	2.9E-10	8.0E-01	1.6E-10	7.9E-11	4.6E-11	2.5E-11	1.4E+03	1.8E+03	3.6E+03	6.2E+03	5.5E+03	1.4E+03	≤ 1
Re-181	1.0E+00	4.2E-09	8.0E-01	2.8E-09	1.4E-09	8.2E-10	4.2E-10	9.5E+01	1.0E+02	2.0E+02	3.5E+02	3.3E+02	9.5E+01	≤ 1
Re-182	1.0E+00	1.4E-08	8.0E-01	8.9E-09	4.7E-09	2.8E-09	1.4E-09	2.9E+01	3.2E+01	6.1E+01	1.0E+02	9.8E+01	2.9E+01	≤ 1
Re-182	1.0E+00	2.4E-09	8.0E-01	1.7E-09	8.9E-10	5.2E-10	2.7E-10	1.7E+02	1.7E+02	3.2E+02	5.5E+02	5.1E+02	1.7E+02	≤ 1
Re-184	1.0E+00	8.9E-09	8.0E-01	5.6E-09	3.0E-09	1.8E-09	1.0E-09	4.5E+01	5.1E+01	9.5E+01	1.6E+02	1.4E+02	4.5E+01	≤ 1
Re-184m	1.0E+00	1.7E-08	8.0E-01	9.8E-09	4.9E-09	2.8E-09	1.5E-09	2.4E+01	2.9E+01	5.8E+01	1.0E+02	9.1E+01	2.4E+01	≤ 1
Re-186	1.0E+00	1.9E-08	8.0E-01	1.1E-08	5.5E-09	3.0E-09	1.5E-09	2.1E+01	2.6E+01	5.2E+01	9.5E+01	9.1E+01	2.1E+01	≤ 1
Re-186m	1.0E+00	3.0E-08	8.0E-01	1.6E-08	7.6E-09	4.4E-09	2.2E-09	1.3E+01	1.8E+01	3.8E+01	6.5E+01	6.2E+01	1.3E+01	≤ 1
Re-187	1.0E+00	6.8E-11	8.0E-01	3.8E-11	1.8E-11	1.0E-11	5.1E-12	5.9E+03	7.5E+03	1.6E+04	2.9E+04	2.7E+04	5.9E+03	≤ 1
Re-188	1.0E+00	1.7E-08	8.0E-01	1.1E-08	5.4E-09	2.9E-09	1.4E-09	2.4E+01	2.6E+01	5.3E+01	9.9E+01	9.8E+01	2.4E+01	≤ 1
Re-188m	1.0E+00	3.8E-10	8.0E-01	2.3E-10	1.1E-10	6.1E-11	3.0E-11	1.1E+03	1.2E+03	2.6E+03	4.7E+03	4.6E+03	1.1E+03	≤ 1

continue

Table 1. (continue)

NUCLIDE	Committed effective dose per unit intake via ingestion (h) for members of the public Sv/Bq							Derived activity concentration in water (DWC) Bq/l					Critical concentration Bq/l	Critical age y																				
	AGE (g) ≤ 1 y		AGE (g)					≤ 1 y							1-2 y					2-7 y					7-10 y					>17 y				
	f <sub>1</sub> for g ≤ 1y	h(g)	f <sub>1</sub> for g > 1y	h(g)	h(g)	h(g)	h(g)	DWC	DWC	DWC	DWC	DWC			DWC	DWC	DWC	DWC	DWC	DWC	DWC	DWC	DWC	DWC	DWC	DWC	DWC	DWC						
Re-189	1.0E+00	9.8E-09	8.0E-01	6.2E-09	3.0E-09	1.6E-09	7.8E-10	4.1E+01	4.6E+01	9.5E+01	1.8E+02	1.8E+02	4.1E+01	≤ 1																				
<b>Osmium</b>																																		
Os-180	2.0E-02	1.6E-10	1.0E-02	9.8E-11	5.1E-11	3.2E-11	1.7E-11	2.5E+03	2.9E+03	5.6E+03	8.9E+03	8.1E+03	2.5E+03	≤ 1																				
Os-181	2.0E-02	7.6E-10	1.0E-02	5.0E-10	2.7E-10	1.7E-10	8.9E-11	5.3E+02	5.7E+02	1.1E+03	1.7E+03	1.5E+03	5.3E+02	≤ 1																				
Os-182	2.0E-02	4.6E-09	1.0E-02	3.2E-09	1.7E-09	1.1E-09	5.6E-10	8.7E+01	8.9E+01	1.7E+02	2.6E+02	2.4E+02	8.7E+01	≤ 1																				
Os-185	2.0E-02	3.8E-09	1.0E-02	2.6E-09	1.5E-09	9.8E-10	5.1E-10	1.1E+02	1.1E+02	1.9E+02	2.9E+02	2.7E+02	1.1E+02	≤ 1																				
Os-189m	2.0E-02	2.1E-10	1.0E-02	1.3E-10	6.5E-11	3.8E-11	1.8E-11	1.9E+03	2.2E+03	4.4E+03	7.5E+03	7.6E+03	1.9E+03	≤ 1																				
Os-191	2.0E-02	6.3E-09	1.0E-02	4.1E-09	2.1E-09	1.2E-09	5.7E-10	6.3E+01	7.0E+01	1.4E+02	2.4E+02	2.4E+02	6.3E+01	≤ 1																				
Os-191m	2.0E-02	1.1E-09	1.0E-02	7.1E-10	3.5E-10	2.1E-10	9.6E-11	3.6E+02	4.0E+02	8.2E+02	1.4E+03	1.4E+03	3.6E+02	≤ 1																				
Os-193	2.0E-02	9.3E-09	1.0E-02	6.0E-09	3.0E-09	1.8E-09	8.1E-10	4.3E+01	4.8E+01	9.5E+01	1.6E+02	1.7E+02	4.3E+01	≤ 1																				
Os-194	2.0E-02	2.9E-08	1.0E-02	1.7E-08	8.8E-09	5.2E-09	2.4E-09	1.4E+01	1.7E+01	3.2E+01	5.5E+01	5.7E+01	1.4E+01	≤ 1																				
<b>Iridium</b>																																		
Ir-182	2.0E-02	5.3E-10	1.0E-02	3.0E-10	1.5E-10	8.9E-11	4.8E-11	7.5E+02	9.5E+02	1.9E+03	3.2E+03	2.9E+03	7.5E+02	≤ 1																				
Ir-184	2.0E-02	1.5E-09	1.0E-02	9.7E-10	5.2E-10	3.3E-10	1.7E-10	2.7E+02	2.9E+02	5.5E+02	8.7E+02	8.1E+02	2.7E+02	≤ 1																				
Ir-185	2.0E-02	2.4E-09	1.0E-02	1.6E-09	8.6E-10	5.3E-10	2.6E-10	1.7E+02	1.8E+02	3.3E+02	5.4E+02	5.3E+02	1.7E+02	≤ 1																				
Ir-186	2.0E-02	3.8E-09	1.0E-02	2.7E-09	1.5E-09	9.6E-10	4.9E-10	1.1E+02	1.1E+02	1.9E+02	3.0E+02	2.8E+02	1.1E+02	≤ 1																				
Ir-186	2.0E-02	5.8E-10	1.0E-02	3.6E-10	2.1E-10	1.3E-10	6.1E-11	6.9E+02	7.9E+02	1.4E+03	2.2E+03	2.2E+03	6.9E+02	≤ 1																				
Ir-187	2.0E-02	1.1E-09	1.0E-02	7.3E-10	3.9E-10	2.5E-10	1.2E-10	3.6E+02	3.9E+02	7.3E+02	1.1E+03	1.1E+03	3.6E+02	≤ 1																				
Ir-188	2.0E-02	4.6E-09	1.0E-02	3.3E-09	1.8E-09	1.2E-09	6.3E-10	8.7E+01	8.7E+01	1.6E+02	2.4E+02	2.2E+02	8.7E+01	1-2																				
Ir-189	2.0E-02	2.5E-09	1.0E-02	1.7E-09	8.6E-10	5.2E-10	2.4E-10	1.6E+02	1.7E+02	3.3E+02	5.5E+02	5.7E+02	1.6E+02	≤ 1																				
Ir-190	2.0E-02	1.0E-08	1.0E-02	7.1E-09	3.9E-09	2.5E-09	1.2E-09	4.0E+01	4.0E+01	7.3E+01	1.1E+02	1.1E+02	4.0E+01	≤ 1																				
Ir-190m	2.0E-02	9.4E-10	1.0E-02	6.4E-10	3.5E-10	2.3E-10	1.2E-10	4.3E+02	4.5E+02	8.2E+02	1.2E+03	1.1E+03	4.3E+02	≤ 1																				

continue

Table 1. (continue)

NUCLIDE	Committed effective dose per unit intake via ingestion (h) for members of the public							Derived activity concentration in water (DWC)					Critical concentration Bq/l	Critical age y
	Sv/Bq							Bq/l						
	AGE (g)	≤ 1 y	AGE (g)	1-2 y	2-7 y	7-10 y	>17 y	≤ 1 y	1-2 y	2-7 y	7-10 y	>17 y		
$f_1$ for g ≤1y	h(g)	$f_1$ for g > 1y	h(g)	h(g)	h(g)	h(g)	DWC	DWC	DWC	DWC	DWC			
Ir-190m	2.0E-02	7.9E-11	1.0E-02	5.0E-11	2.6E-11	1.6E-11	8.0E-12	5.1E+03	5.7E+03	1.1E+04	1.8E+04	1.7E+04	5.1E+03	≤ 1
Ir-192	2.0E-02	1.3E-08	1.0E-02	8.7E-09	4.6E-09	2.8E-09	1.4E-09	3.1E+01	3.3E+01	6.2E+01	1.0E+02	9.8E+01	3.1E+01	≤ 1
Ir-192m	2.0E-02	2.8E-09	1.0E-02	1.4E-09	8.3E-10	5.5E-10	3.1E-10	1.4E+02	2.0E+02	3.4E+02	5.2E+02	4.4E+02	1.4E+02	≤ 1
Ir-193m	2.0E-02	3.2E-09	1.0E-02	2.0E-09	1.0E-09	6.0E-10	2.7E-10	1.3E+02	1.4E+02	2.9E+02	4.8E+02	5.1E+02	1.3E+02	≤ 1
Ir-194	2.0E-02	1.5E-08	1.0E-02	9.8E-09	4.9E-09	2.9E-09	1.3E-09	2.7E+01	2.9E+01	5.8E+01	9.9E+01	1.1E+02	2.7E+01	≤ 1
Ir-194m	2.0E-02	1.7E-08	1.0E-02	1.1E-08	6.4E-09	4.1E-09	2.1E-09	2.4E+01	2.6E+01	4.5E+01	7.0E+01	6.5E+01	2.4E+01	≤ 1
Ir-195	2.0E-02	1.2E-09	1.0E-02	7.3E-10	3.6E-10	2.1E-10	1.0E-10	3.3E+02	3.9E+02	7.9E+02	1.4E+03	1.4E+03	3.3E+02	≤ 1
Ir-195m	2.0E-02	2.3E-09	1.0E-02	1.5E-09	7.3E-10	4.3E-10	2.1E-10	1.7E+02	1.9E+02	3.9E+02	6.6E+02	6.5E+02	1.7E+02	≤ 1
<b>Platinum</b>														
Pt-186	2.0E-02	7.8E-10	1.0E-02	5.3E-10	2.9E-10	1.8E-10	9.3E-11	5.1E+02	5.4E+02	9.9E+02	1.6E+03	1.5E+03	5.1E+02	≤ 1
Pt-188	2.0E-02	6.7E-09	1.0E-02	4.5E-09	2.4E-09	1.5E-09	7.6E-10	6.0E+01	6.3E+01	1.2E+02	1.9E+02	1.8E+02	6.0E+01	≤ 1
Pt-189	2.0E-02	1.1E-09	1.0E-02	7.4E-10	3.9E-10	2.5E-10	1.2E-10	3.6E+02	3.9E+02	7.3E+02	1.1E+03	1.1E+03	3.6E+02	≤ 1
Pt-191	2.0E-02	3.1E-09	1.0E-02	2.1E-09	1.1E-09	6.9E-10	3.4E-10	1.3E+02	1.4E+02	2.6E+02	4.1E+02	4.0E+02	1.3E+02	≤ 1
Pt-193	2.0E-02	3.7E-10	1.0E-02	2.4E-10	1.2E-10	6.9E-11	3.1E-11	1.1E+03	1.2E+03	2.4E+03	4.1E+03	4.4E+03	1.1E+03	≤ 1
Pt-193m	2.0E-02	5.2E-09	1.0E-02	3.4E-09	1.7E-09	9.9E-10	4.5E-10	7.7E+01	8.4E+01	1.7E+02	2.9E+02	3.0E+02	7.7E+01	≤ 1
Pt-195m	2.0E-02	7.1E-09	1.0E-02	4.6E-09	2.3E-09	1.4E-09	6.3E-10	5.6E+01	6.2E+01	1.2E+02	2.0E+02	2.2E+02	5.6E+01	≤ 1
Pt-197	2.0E-02	4.7E-09	1.0E-02	3.0E-09	1.5E-09	8.8E-10	4.0E-10	8.5E+01	9.5E+01	1.9E+02	3.2E+02	3.4E+02	8.5E+01	≤ 1
Pt-197m	2.0E-02	1.0E-09	1.0E-02	6.1E-10	3.0E-10	1.8E-10	8.4E-11	4.0E+02	4.7E+02	9.5E+02	1.6E+03	1.6E+03	4.0E+02	≤ 1
Pt-199	2.0E-02	4.7E-10	1.0E-02	2.7E-10	1.3E-10	7.5E-11	3.9E-11	8.5E+02	1.1E+03	2.2E+03	3.8E+03	3.5E+03	8.5E+02	≤ 1
Pt-200	2.0E-02	1.4E-08	1.0E-02	8.8E-09	4.4E-09	2.6E-09	1.2E-09	2.9E+01	3.2E+01	6.5E+01	1.1E+02	1.1E+02	2.9E+01	≤ 1
<b>Gold</b>														
Au-193	2.0E-01	1.2E-09	1.0E-01	8.8E-10	4.6E-10	2.8E-10	1.3E-10	3.3E+02	3.2E+02	6.2E+02	1.0E+03	1.1E+03	3.2E+02	1-2

continue

Table 1. (continue)

NUCLIDE	Committed effective dose per unit intake via ingestion (h) for members of the public Sv/Bq							Derived activity concentration in water (DWC) Bq/l					Critical concentration Bq/l	Critical age y
	AGE (g)	≤ 1 y	AGE (g)	1-2 y	2-7 y	7-10 y	>17 y	≤ 1 y	1-2 y	2-7 y	7-10 y	>17 y		
	f <sub>1</sub> for g ≤1y	h(g)	f <sub>1</sub> for g > 1y	h(g)	h(g)	h(g)	h(g)	DWC	DWC	DWC	DWC	DWC		
Au-194	2.0E-01	2.9E-09	1.0E-01	2.2E-09	1.2E-09	8.1E-10	4.2E-10	1.4E+02	1.3E+02	2.4E+02	3.5E+02	3.3E+02	1.3E+02	1-2
Au-195	2.0E-01	2.4E-09	1.0E-01	1.7E-09	8.9E-10	5.4E-10	2.5E-10	1.7E+02	1.7E+02	3.2E+02	5.3E+02	5.5E+02	1.7E+02	≤ 1
Au-198	2.0E-01	1.0E-08	1.0E-01	7.2E-09	3.7E-09	2.2E-09	1.0E-09	4.0E+01	4.0E+01	7.7E+01	1.3E+02	1.4E+02	4.0E+01	1-2
Au-198m	2.0E-01	1.2E-08	1.0E-01	8.5E-09	4.4E-09	2.7E-09	1.3E-09	3.3E+01	3.4E+01	6.5E+01	1.1E+02	1.1E+02	3.3E+01	≤ 1
Au-199	2.0E-01	4.5E-09	1.0E-01	3.1E-09	1.6E-09	9.5E-10	4.4E-10	8.9E+01	9.2E+01	1.8E+02	3.0E+02	3.1E+02	8.9E+01	≤ 1
Au-200	2.0E-01	8.3E-10	1.0E-01	4.7E-10	2.3E-10	1.3E-10	6.8E-11	4.8E+02	6.1E+02	1.2E+03	2.2E+03	2.0E+03	4.8E+02	≤ 1
Au-200m	2.0E-01	9.2E-09	1.0E-01	6.6E-09	3.5E-09	2.2E-09	1.1E-09	4.3E+01	4.3E+01	8.2E+01	1.3E+02	1.2E+02	4.3E+01	1-2
Au-201	2.0E-01	3.1E-10	1.0E-01	1.7E-10	8.2E-11	4.6E-11	2.4E-11	1.3E+03	1.7E+03	3.5E+03	6.2E+03	5.7E+03	1.3E+03	≤ 1
<b>Mercury</b>														
Hg-193 (org.)	1.0E+00	3.3E-10	1.0E+00	1.9E-10	9.8E-11	5.8E-11	3.1E-11	1.2E+03	1.5E+03	2.9E+03	4.9E+03	4.4E+03	1.2E+03	≤ 1
	8.0E-01	4.7E-10	4.0E-01	4.4E-10	2.2E-10	1.4E-10	6.6E-11	8.5E+02	6.5E+02	1.3E+03	2.0E+03	2.1E+03	6.5E+02	1-2
Hg-193 (inorg.)	4.0E-02	8.5E-10	2.0E-02	5.5E-10	2.8E-10	1.7E-10	8.2E-11	4.7E+02	5.2E+02	1.0E+03	1.7E+03	1.7E+03	4.7E+02	≤ 1
Hg-193m (org.)	1.0E+00	1.1E-09	1.0E+00	6.8E-10	3.7E-10	2.3E-10	1.3E-10	3.6E+02	4.2E+02	7.7E+02	1.2E+03	1.1E+03	3.6E+02	≤ 1
	8.0E-01	1.6E-09	4.0E-01	1.8E-09	9.5E-10	6.0E-10	3.0E-10	2.5E+02	1.6E+02	3.0E+02	4.8E+02	4.6E+02	1.6E+02	1-2
Hg-193m(inorg.)	4.0E-02	3.6E-09	2.0E-02	2.4E-09	1.3E-09	8.1E-10	4.0E-10	1.1E+02	1.2E+02	2.2E+02	3.5E+02	3.4E+02	1.1E+02	≤ 1
Hg-194 (org.)	1.0E+00	1.3E-07	1.0E+00	1.2E-07	8.4E-08	6.6E-08	5.1E-08	3.1E+00	2.4E+00	3.4E+00	4.3E+00	2.7E+00	2.4E+00	1-2
	8.0E-01	1.1E-07	4.0E-01	4.8E-08	3.5E-08	2.7E-08	2.1E-08	3.6E+00	6.0E+00	8.2E+00	1.1E+01	6.5E+00	3.6E+00	≤ 1
Hg-194 (inorg.)	4.0E-02	7.2E-09	2.0E-02	3.6E-09	2.6E-09	1.9E-09	1.4E-09	5.6E+01	7.9E+01	1.1E+02	1.5E+02	9.8E+01	5.6E+01	≤ 1
Hg-195 (org.)	1.0E+00	3.0E-10	1.0E+00	2.0E-10	1.0E-10	6.4E-11	3.4E-11	1.3E+03	1.4E+03	2.9E+03	4.5E+03	4.0E+03	1.3E+03	≤ 1
	8.0E-01	4.6E-10	4.0E-01	4.8E-10	2.5E-10	1.5E-10	7.5E-11	8.7E+02	6.0E+02	1.1E+03	1.9E+03	1.8E+03	6.0E+02	1-2
Hg-195 (inorg.)	4.0E-02	9.5E-10	2.0E-02	6.3E-10	3.3E-10	2.0E-10	9.7E-11	4.2E+02	4.5E+02	8.7E+02	1.4E+03	1.4E+03	4.2E+02	≤ 1
Hg-195m (org.)	1.0E+00	2.1E-09	1.0E+00	1.3E-09	6.8E-10	4.2E-10	2.2E-10	1.9E+02	2.2E+02	4.2E+02	6.8E+02	6.2E+02	1.9E+02	≤ 1

continue

Table 1. (continue)

NUCLIDE	Committed effective dose per unit intake via ingestion (h) for members of the public Sv/Bq							Derived activity concentration in water (DWC) Bq/l					Critical concentration Bq/l	Critical age y
	AGE (g)	≤ 1 y	AGE (g)	1-2 y	2-7 y	7-10 y	>17 y	≤ 1 y	1-2 y	2-7 y	7-10 y	>17 y		
	f <sub>1</sub> for g ≤1y	h(g)	f <sub>1</sub> for g > 1y	h(g)	h(g)	h(g)	h(g)	DWC	DWC	DWC	DWC	DWC		
	8.0E-01	2.6E-09	4.0E-01	2.8E-09	1.4E-09	8.7E-10	4.1E-10	1.5E+02	1.0E+02	2.0E+02	3.3E+02	3.3E+02	1.0E+02	1-2
Hg-195m(inorg.)	4.0E-02	5.8E-09	2.0E-02	3.8E-09	2.0E-09	1.2E-09	5.6E-10	6.9E+01	7.5E+01	1.4E+02	2.4E+02	2.4E+02	6.9E+01	≤ 1
Hg-197 (org.)	1.0E+00	9.7E-10	1.0E+00	6.2E-10	3.1E-10	1.9E-10	9.9E-11	4.1E+02	4.6E+02	9.2E+02	1.5E+03	1.4E+03	4.1E+02	≤ 1
	8.0E-01	1.3E-09	4.0E-01	1.2E-09	6.1E-10	3.7E-10	1.7E-10	3.1E+02	2.4E+02	4.7E+02	7.7E+02	8.1E+02	2.4E+02	1-2
Hg-197 (inorg.)	4.0E-02	2.5E-09	2.0E-02	1.6E-09	8.3E-10	5.0E-10	2.3E-10	1.6E+02	1.8E+02	3.4E+02	5.7E+02	6.0E+02	1.6E+02	≤ 1
Hg-197m (org.)	1.0E+00	1.5E-09	1.0E+00	9.5E-10	4.8E-10	2.9E-10	1.5E-10	2.7E+02	3.0E+02	6.0E+02	9.9E+02	9.1E+02	2.7E+02	≤ 1
	8.0E-01	2.2E-09	4.0E-01	2.5E-09	1.2E-09	7.3E-10	3.4E-10	1.8E+02	1.1E+02	2.4E+02	3.9E+02	4.0E+02	1.1E+02	1-2
Hg-197m(inorg.)	4.0E-02	5.2E-09	2.0E-02	3.4E-09	1.7E-09	1.0E-09	4.7E-10	7.7E+01	8.4E+01	1.7E+02	2.9E+02	2.9E+02	7.7E+01	≤ 1
Hg-199m (org.)	1.0E+00	3.4E-10	1.0E+00	1.9E-10	9.3E-11	5.3E-11	2.8E-11	1.2E+03	1.5E+03	3.1E+03	5.4E+03	4.9E+03	1.2E+03	≤ 1
	8.0E-01	3.6E-10	4.0E-01	2.1E-10	1.0E-10	5.8E-11	3.1E-11	1.1E+03	1.4E+03	2.9E+03	4.9E+03	4.4E+03	1.1E+03	≤ 1
Hg-199m(inorg.)	4.0E-02	3.7E-10	2.0E-02	2.1E-10	1.0E-10	5.9E-11	3.1E-11	1.1E+03	1.4E+03	2.9E+03	4.8E+03	4.4E+03	1.1E+03	≤ 1
Hg-203 (org.)	1.0E+00	1.5E-08	1.0E+00	1.1E-08	5.7E-09	3.6E-09	1.9E-09	2.7E+01	2.6E+01	5.0E+01	7.9E+01	7.2E+01	2.6E+01	1-2
	8.0E-01	1.3E-08	4.0E-01	6.4E-09	3.4E-09	2.1E-09	1.1E-09	3.1E+01	4.5E+01	8.4E+01	1.4E+02	1.2E+02	3.1E+01	≤ 1
Hg-203 (inorg.)	4.0E-02	5.5E-09	2.0E-02	3.6E-09	1.8E-09	1.1E-09	5.4E-10	7.3E+01	7.9E+01	1.6E+02	2.6E+02	2.5E+02	7.3E+01	≤ 1
<b>Thallium</b>														
Tl-194	1.0E+00	6.1E-11	1.0E+00	3.9E-11	2.2E-11	1.4E-11	8.1E-12	6.6E+03	7.3E+03	1.3E+04	2.0E+04	1.7E+04	6.6E+03	≤ 1
Tl-194m	1.0E+00	3.8E-10	1.0E+00	2.2E-10	1.2E-10	7.0E-11	4.0E-11	1.1E+03	1.3E+03	2.4E+03	4.1E+03	3.4E+03	1.1E+03	≤ 1
Tl-195	1.0E+00	2.3E-10	1.0E+00	1.4E-10	7.5E-11	4.7E-11	2.7E-11	1.7E+03	2.0E+03	3.8E+03	6.1E+03	5.1E+03	1.7E+03	≤ 1
Tl-197	1.0E+00	2.1E-10	1.0E+00	1.3E-10	6.7E-11	4.2E-11	2.3E-11	1.9E+03	2.2E+03	4.3E+03	6.8E+03	6.0E+03	1.9E+03	≤ 1
Tl-198	1.0E+00	4.7E-10	1.0E+00	3.3E-10	1.9E-10	1.2E-10	7.3E-11	8.5E+02	8.7E+02	1.5E+03	2.4E+03	1.9E+03	8.5E+02	≤ 1
Tl-198m	1.0E+00	4.8E-10	1.0E+00	3.0E-10	1.6E-10	9.7E-11	5.4E-11	8.3E+02	9.5E+02	1.8E+03	2.9E+03	2.5E+03	8.3E+02	≤ 1
Tl-199	1.0E+00	2.3E-10	1.0E+00	1.5E-10	7.7E-11	4.8E-11	2.6E-11	1.7E+03	1.9E+03	3.7E+03	6.0E+03	5.3E+03	1.7E+03	≤ 1

continue

Table 1. (continue)

NUCLIDE	Committed effective dose per unit intake via ingestion (h) for members of the public Sv/Bq							Derived activity concentration in water (DWC) Bq/l					Critical concentration Bq/l	Critical age y
	AGE (g)	≤ 1 y	AGE (g)	1-2 y	2-7 y	7-10 y	>17 y	≤ 1 y	1-2 y	2-7 y	7-10 y	>17 y		
	f <sub>1</sub> for g ≤1y	h(g)	f <sub>1</sub> for g > 1y	h(g)	h(g)	h(g)	h(g)	DWC	DWC	DWC	DWC	DWC		
Tl-200	1.0E+00	1.3E-09	1.0E+00	9.1E-10	5.3E-10	3.5E-10	2.0E-10	3.1E+02	3.1E+02	5.4E+02	8.2E+02	6.8E+02	3.1E+02	≤ 1
Tl-201	1.0E+00	8.4E-10	1.0E+00	5.5E-10	2.9E-10	1.8E-10	9.5E-11	4.8E+02	5.2E+02	9.9E+02	1.6E+03	1.4E+03	4.8E+02	≤ 1
Tl-202	1.0E+00	2.9E-09	1.0E+00	2.1E-09	1.2E-09	7.9E-10	4.5E-10	1.4E+02	1.4E+02	2.4E+02	3.6E+02	3.0E+02	1.4E+02	1-2
Tl-204	1.0E+00	1.3E-08	1.0E+00	8.5E-09	4.2E-09	2.5E-09	1.2E-09	3.1E+01	3.4E+01	6.8E+01	1.1E+02	1.1E+02	3.1E+01	≤ 1
<b>Lead</b>														
Pb-195m	6.0E-01	2.6E-10	2.0E-01	1.6E-10	8.4E-11	5.2E-11	2.9E-11	1.5E+03	1.8E+03	3.4E+03	5.5E+03	4.7E+03	1.5E+03	≤ 1
Pb-198	6.0E-01	5.9E-10	2.0E-01	4.8E-10	2.7E-10	1.7E-10	1.0E-10	6.8E+02	6.0E+02	1.1E+03	1.7E+03	1.4E+03	6.0E+02	1-2
Pb-199	6.0E-01	3.5E-10	2.0E-01	2.6E-10	1.5E-10	9.4E-11	5.4E-11	1.1E+03	1.1E+03	1.9E+03	3.0E+03	2.5E+03	1.1E+03	1-2
Pb-200	6.0E-01	2.5E-09	2.0E-01	2.0E-09	1.1E-09	7.0E-10	4.0E-10	1.6E+02	1.4E+02	2.6E+02	4.1E+02	3.4E+02	1.4E+02	1-2
Pb-201	6.0E-01	9.4E-10	2.0E-01	7.8E-10	4.3E-10	2.7E-10	1.6E-10	4.3E+02	3.7E+02	6.6E+02	1.1E+03	8.6E+02	3.7E+02	1-2
Pb-202	6.0E-01	3.4E-08	2.0E-01	1.6E-08	1.3E-08	1.9E-08	8.8E-09	1.2E+01	1.8E+01	2.2E+01	1.5E+01	1.6E+01	1.2E+01	≤ 1
Pb-202m	6.0E-01	7.6E-10	2.0E-01	6.1E-10	3.5E-10	2.3E-10	1.3E-10	5.3E+02	4.7E+02	8.2E+02	1.2E+03	1.1E+03	4.7E+02	1-2
Pb-203	6.0E-01	1.6E-09	2.0E-01	1.3E-09	6.8E-10	4.3E-10	2.4E-10	2.5E+02	2.2E+02	4.2E+02	6.6E+02	5.7E+02	2.2E+02	1-2
Pb-205	6.0E-01	2.1E-09	2.0E-01	9.9E-10	6.2E-10	6.1E-10	2.8E-10	1.9E+02	2.9E+02	4.6E+02	4.7E+02	4.9E+02	1.9E+02	≤ 1
Pb-209	6.0E-01	5.7E-10	2.0E-01	3.8E-10	1.9E-10	1.1E-10	5.7E-11	7.0E+02	7.5E+02	1.5E+03	2.6E+03	2.4E+03	7.0E+02	≤ 1
Pb-210	6.0E-01	8.4E-06	2.0E-01	3.6E-06	2.2E-06	1.9E-06	6.9E-07	4.8E-02	7.9E-02	1.3E-01	1.5E-01	2.0E-01	4.8E-02	≤ 1
Pb-211	6.0E-01	3.1E-09	2.0E-01	1.4E-09	7.1E-10	4.1E-10	1.8E-10	1.3E+02	2.0E+02	4.0E+02	7.0E+02	7.6E+02	1.3E+02	≤ 1
Pb-212	6.0E-01	1.5E-07	2.0E-01	6.3E-08	3.3E-08	2.0E-08	6.0E-09	2.7E+00	4.5E+00	8.7E+00	1.4E+01	2.3E+01	2.7E+00	≤ 1
Pb-214	6.0E-01	2.7E-09	2.0E-01	1.0E-09	5.2E-10	3.1E-10	1.4E-10	1.5E+02	2.9E+02	5.5E+02	9.2E+02	9.8E+02	1.5E+02	≤ 1
<b>Bismuth</b>														
Bi-200	1.0E-01	4.2E-10	5.0E-02	2.7E-10	1.5E-10	9.5E-11	5.1E-11	9.5E+02	1.1E+03	1.9E+03	3.0E+03	2.7E+03	9.5E+02	≤ 1
Bi-201	1.0E-01	1.0E-09	5.0E-02	6.7E-10	3.6E-10	2.2E-10	1.2E-10	4.0E+02	4.3E+02	7.9E+02	1.3E+03	1.1E+03	4.0E+02	≤ 1

continue

Table 1. (continue)

NUCLIDE	Committed effective dose per unit intake via ingestion (h) for members of the public Sv/Bq							Derived activity concentration in water (DWC) Bq/l					Critical concentration Bq/l	Critical age y
	AGE (g)	≤ 1 y	AGE (g)	1-2 y	2-7 y	7-10 y	>17 y	≤ 1 y	1-2 y	2-7 y	7-10 y	>17 y		
	f <sub>1</sub> for g ≤1y	h(g)	f <sub>1</sub> for g > 1y	h(g)	h(g)	h(g)	h(g)	DWC	DWC	DWC	DWC	DWC		
Bi-202	1.0E-01	6.4E-10	5.0E-02	4.4E-10	2.5E-10	1.6E-10	8.9E-11	6.3E+02	6.5E+02	1.1E+03	1.8E+03	1.5E+03	6.3E+02	≤ 1
Bi-203	1.0E-01	3.5E-09	5.0E-02	2.5E-09	1.4E-09	9.3E-10	4.8E-10	1.1E+02	1.1E+02	2.0E+02	3.1E+02	2.9E+02	1.1E+02	≤ 1
Bi-205	1.0E-01	6.1E-09	5.0E-02	4.5E-09	2.6E-09	1.7E-09	9.0E-10	6.6E+01	6.3E+01	1.1E+02	1.7E+02	1.5E+02	6.3E+01	1-2
Bi-206	1.0E-01	1.4E-08	5.0E-02	1.0E-08	5.7E-09	3.7E-09	1.9E-09	2.9E+01	2.9E+01	5.0E+01	7.7E+01	7.2E+01	2.9E+01	≤ 1
Bi-207	1.0E-01	1.0E-08	5.0E-02	7.1E-09	3.9E-09	2.5E-09	1.3E-09	4.0E+01	4.0E+01	7.3E+01	1.1E+02	1.1E+02	4.0E+01	≤ 1
Bi-210	1.0E-01	1.5E-08	5.0E-02	9.7E-09	4.8E-09	2.9E-09	1.3E-09	2.7E+01	2.9E+01	6.0E+01	9.9E+01	1.1E+02	2.7E+01	≤ 1
Bi-210m	1.0E-01	2.1E-07	5.0E-02	9.1E-08	4.7E-08	3.0E-08	1.5E-08	1.9E+00	3.1E+00	6.1E+00	9.5E+00	9.1E+00	1.9E+00	≤ 1
Bi-212	1.0E-01	3.2E-09	5.0E-02	1.8E-09	8.7E-10	5.0E-10	2.6E-10	1.3E+02	1.6E+02	3.3E+02	5.7E+02	5.3E+02	1.3E+02	≤ 1
Bi-213	1.0E-01	2.5E-09	5.0E-02	1.4E-09	6.7E-10	3.9E-10	2.0E-10	1.6E+02	2.0E+02	4.3E+02	7.3E+02	6.8E+02	1.6E+02	≤ 1
Bi-214	1.0E-01	1.4E-09	5.0E-02	7.4E-10	3.6E-10	2.1E-10	1.1E-10	2.9E+02	3.9E+02	7.9E+02	1.4E+03	1.2E+03	2.9E+02	≤ 1
<b>Polonium</b>														
Po-203	1.0E+00	2.9E-10	5.0E-01	2.4E-10	1.3E-10	8.5E-11	4.6E-11	1.4E+03	1.2E+03	2.2E+03	3.4E+03	3.0E+03	1.2E+03	1-2
Po-205	1.0E+00	3.5E-10	5.0E-01	2.8E-10	1.6E-10	1.1E-10	5.8E-11	1.1E+03	1.0E+03	1.8E+03	2.6E+03	2.4E+03	1.0E+03	1-2
Po-207	1.0E+00	4.4E-10	5.0E-01	5.7E-10	3.2E-10	2.1E-10	1.1E-10	9.1E+02	5.0E+02	8.9E+02	1.4E+03	1.2E+03	5.0E+02	1-2
Po-210	1.0E+00	2.6E-05	5.0E-01	8.8E-06	4.4E-06	2.6E-06	1.2E-06	1.5E-02	3.2E-02	6.5E-02	1.1E-01	1.1E-01	1.5E-02	≤ 1
<b>Astatine</b>														
At-207	1.0E+00	2.5E-09	1.0E+00	1.6E-09	8.0E-10	4.8E-10	2.4E-10	1.6E+02	1.8E+02	3.6E+02	6.0E+02	5.7E+02	1.6E+02	≤ 1
At-211	1.0E+00	1.2E-07	1.0E+00	7.8E-08	3.8E-08	2.3E-08	1.1E-08	3.3E+00	3.7E+00	7.5E+00	1.2E+01	1.2E+01	3.3E+00	≤ 1
<b>Francium</b>														
Fr-222	1.0E+00	6.2E-09	1.0E+00	3.9E-09	2.0E-09	1.3E-09	7.2E-10	6.5E+01	7.3E+01	1.4E+02	2.2E+02	1.9E+02	6.5E+01	≤ 1
Fr-223	1.0E+00	2.6E-08	1.0E+00	1.7E-08	8.3E-09	5.0E-09	2.4E-09	1.5E+01	1.7E+01	3.4E+01	5.7E+01	5.7E+01	1.5E+01	≤ 1

continue

Table 1. (continue)

NUCLIDE	Committed effective dose per unit intake via ingestion (h) for members of the public							Derived activity concentration in water (DWC)					Critical concentration Bq/l	Critical age y
	Sv/Bq							Bq/l						
	AGE (g) f <sub>1</sub> for g ≤1y	≤ 1 y h(g)	AGE (g) f <sub>1</sub> for g > 1y	1-2 y h(g)	2-7 y h(g)	7-10 y h(g)	>17 y h(g)	≤ 1 y DWC	1-2 y DWC	2-7 y DWC	7-10 y DWC	>17 y DWC		
<b>Radium</b>														
Ra-223	6.0E-01	5.3E-06	2.0E-01	1.1E-06	5.7E-07	4.5E-07	1.0E-07	7.5E-02	2.6E-01	5.0E-01	6.3E-01	1.4E+00	7.5E-02	≤ 1
Ra-224	6.0E-01	2.7E-06	2.0E-01	6.6E-07	3.5E-07	2.6E-07	6.5E-08	1.5E-01	4.3E-01	8.2E-01	1.1E+00	2.1E+00	1.5E-01	≤ 1
Ra-225	6.0E-01	7.1E-06	2.0E-01	1.2E-06	6.1E-07	5.0E-07	9.9E-08	5.6E-02	2.4E-01	4.7E-01	5.7E-01	1.4E+00	5.6E-02	≤ 1
Ra-226	6.0E-01	4.7E-06	2.0E-01	9.6E-07	6.2E-07	8.0E-07	2.8E-07	8.5E-02	3.0E-01	4.6E-01	3.6E-01	4.9E-01	8.5E-02	≤ 1
Ra-227	6.0E-01	1.1E-09	2.0E-01	4.3E-10	2.5E-10	1.7E-10	8.1E-11	3.6E+02	6.6E+02	1.1E+03	1.7E+03	1.7E+03	3.6E+02	≤ 1
Ra-228	6.0E-01	3.0E-05	2.0E-01	5.7E-06	3.4E-06	3.9E-06	6.9E-07	1.3E-02	5.0E-02	8.4E-02	7.3E-02	2.0E-01	1.3E-02	≤ 1
<b>Actinium</b>														
Ac-224	5.0E-03	1.0E-08	5.0E-04	5.2E-09	2.6E-09	1.5E-09	7.0E-10	4.0E+01	5.5E+01	1.1E+02	1.9E+02	2.0E+02	4.0E+01	≤ 1
Ac-225	5.0E-03	4.6E-07	5.0E-04	1.8E-07	9.1E-08	5.4E-08	2.4E-08	8.7E-01	1.6E+00	3.1E+00	5.3E+00	5.7E+00	8.7E-01	≤ 1
Ac-226	5.0E-03	1.4E-07	5.0E-04	7.6E-08	3.8E-08	2.3E-08	1.0E-08	2.9E+00	3.8E+00	7.5E+00	1.2E+01	1.4E+01	2.9E+00	≤ 1
Ac-227	5.0E-03	3.3E-05	5.0E-04	3.1E-06	2.2E-06	1.5E-06	1.1E-06	1.2E-02	9.2E-02	1.3E-01	1.9E-01	1.2E-01	1.2E-02	≤ 1
Ac-228	5.0E-03	7.4E-09	5.0E-04	2.8E-09	1.4E-09	8.7E-10	4.3E-10	5.4E+01	1.0E+02	2.0E+02	3.3E+02	3.2E+02	5.4E+01	≤ 1
<b>Thorium</b>														
Th-226	5.0E-03	4.4E-09	5.0E-04	2.4E-09	1.2E-09	6.7E-10	3.5E-10	9.1E+01	1.2E+02	2.4E+02	4.3E+02	3.9E+02	9.1E+01	≤ 1
Th-227	5.0E-03	3.0E-07	5.0E-04	7.0E-08	3.6E-08	2.3E-08	8.8E-09	1.3E+00	4.1E+00	7.9E+00	1.2E+01	1.6E+01	1.3E+00	≤ 1
Th-228	5.0E-03	3.7E-06	5.0E-04	3.7E-07	2.2E-07	1.5E-07	7.2E-08	1.1E-01	7.7E-01	1.3E+00	1.9E+00	1.9E+00	1.1E-01	≤ 1
Th-229	5.0E-03	1.1E-05	5.0E-04	1.0E-06	7.8E-07	6.2E-07	4.9E-07	3.6E-02	2.9E-01	3.7E-01	4.6E-01	2.8E-01	3.6E-02	≤ 1
Th-230	5.0E-03	4.1E-06	5.0E-04	4.1E-07	3.1E-07	2.4E-07	2.1E-07	9.8E-02	7.0E-01	9.2E-01	1.2E+00	6.5E-01	9.8E-02	≤ 1
Th-231	5.0E-03	3.9E-09	5.0E-04	2.5E-09	1.2E-09	7.4E-10	3.4E-10	1.0E+02	1.1E+02	2.4E+02	3.9E+02	4.0E+02	1.0E+02	≤ 1
Th-232	5.0E-03	4.6E-06	5.0E-04	4.5E-07	3.5E-07	2.9E-07	2.3E-07	8.7E-02	6.3E-01	8.2E-01	9.9E-01	6.0E-01	8.7E-02	≤ 1

continue

Table 1. (continue)

NUCLIDE	Committed effective dose per unit intake via ingestion (h) for members of the public Sv/Bq							Derived activity concentration in water (DWC) Bq/l					Critical concentration Bq/l	Critical age y
	AGE (g)	≤ 1 y	AGE (g)	1-2 y	2-7 y	7-10 y	>17 y	≤ 1 y	1-2 y	2-7 y	7-10 y	>17 y		
	f <sub>1</sub> for g ≤1y	h(g)	f <sub>1</sub> for g > 1y	h(g)	h(g)	h(g)	h(g)	DWC	DWC	DWC	DWC	DWC		
Th-234	5.0E-03	4.0E-08	5.0E-04	2.5E-08	1.3E-08	7.4E-09	3.4E-09	1.0E+01	1.1E+01	2.2E+01	3.9E+01	4.0E+01	1.0E+01	≤ 1
<b>Protactinium</b>														
Pa-227	5.0E-03	5.8E-09	5.0E-04	3.2E-09	1.5E-09	8.7E-10	4.5E-10	6.9E+01	8.9E+01	1.9E+02	3.3E+02	3.0E+02	6.9E+01	≤ 1
Pa-228	5.0E-03	1.2E-08	5.0E-04	4.8E-09	2.6E-09	1.6E-09	7.8E-10	3.3E+01	6.0E+01	1.1E+02	1.8E+02	1.8E+02	3.3E+01	≤ 1
Pa-230	5.0E-03	2.6E-08	5.0E-04	5.7E-09	3.1E-09	1.9E-09	9.2E-10	1.5E+01	5.0E+01	9.2E+01	1.5E+02	1.5E+02	1.5E+01	≤ 1
Pa-231	5.0E-03	1.3E-05	5.0E-04	1.3E-06	1.1E-06	9.2E-07	7.1E-07	3.1E-02	2.2E-01	2.6E-01	3.1E-01	1.9E-01	3.1E-02	≤ 1
Pa-232	5.0E-03	6.3E-09	5.0E-04	4.2E-09	2.2E-09	1.4E-09	7.2E-10	6.3E+01	6.8E+01	1.3E+02	2.0E+02	1.9E+02	6.3E+01	≤ 1
Pa-233	5.0E-03	9.7E-09	5.0E-04	6.2E-09	3.2E-09	1.9E-09	8.7E-10	4.1E+01	4.6E+01	8.9E+01	1.5E+02	1.6E+02	4.1E+01	≤ 1
Pa-234	5.0E-03	5.0E-09	5.0E-04	3.2E-09	1.7E-09	1.0E-09	5.1E-10	8.0E+01	8.9E+01	1.7E+02	2.9E+02	2.7E+02	8.0E+01	≤ 1
<b>Uranium</b>														
U-230	4.0E-02	7.9E-07	2.0E-02	3.0E-07	1.5E-07	1.0E-07	5.6E-08	5.1E-01	9.5E-01	1.9E+00	2.9E+00	2.4E+00	5.1E-01	≤ 1
U-231	4.0E-02	3.1E-09	2.0E-02	2.0E-09	1.0E-09	6.1E-10	2.8E-10	1.3E+02	1.4E+02	2.9E+02	4.7E+02	4.9E+02	1.3E+02	≤ 1
U-232	4.0E-02	2.5E-06	2.0E-02	8.2E-07	5.8E-07	5.7E-07	3.3E-07	1.6E-01	3.5E-01	4.9E-01	5.0E-01	4.2E-01	1.6E-01	≤ 1
U-233	4.0E-02	3.8E-07	2.0E-02	1.4E-07	9.2E-08	7.8E-08	5.1E-08	1.1E+00	2.0E+00	3.1E+00	3.7E+00	2.7E+00	1.1E+00	≤ 1
U-234	4.0E-02	3.7E-07	2.0E-02	1.3E-07	8.8E-08	7.4E-08	4.9E-08	1.1E+00	2.2E+00	3.2E+00	3.9E+00	2.8E+00	1.1E+00	≤ 1
U-235	4.0E-02	3.5E-07	2.0E-02	1.3E-07	8.5E-08	7.1E-08	4.7E-08	1.1E+00	2.2E+00	3.4E+00	4.0E+00	2.9E+00	1.1E+00	≤ 1
U-236	4.0E-02	3.5E-07	2.0E-02	1.3E-07	8.4E-08	7.0E-08	4.7E-08	1.1E+00	2.2E+00	3.4E+00	4.1E+00	2.9E+00	1.1E+00	≤ 1
U-237	4.0E-02	8.3E-09	2.0E-02	5.4E-09	2.8E-09	1.6E-09	7.6E-10	4.8E+01	5.3E+01	1.0E+02	1.8E+02	1.8E+02	4.8E+01	≤ 1
U-238	4.0E-02	3.4E-07	2.0E-02	1.2E-07	8.0E-08	6.8E-08	4.5E-08	1.2E+00	2.4E+00	3.6E+00	4.2E+00	3.0E+00	1.2E+00	≤ 1
U-239	4.0E-02	3.4E-10	2.0E-02	1.9E-10	9.3E-11	5.4E-11	2.7E-11	1.2E+03	1.5E+03	3.1E+03	5.3E+03	5.1E+03	1.2E+03	≤ 1
U-240	4.0E-02	1.3E-08	2.0E-02	8.1E-09	4.1E-09	2.4E-09	1.1E-09	3.1E+01	3.5E+01	7.0E+01	1.2E+02	1.2E+02	3.1E+01	≤ 1

continue

Table 1. (continue)

NUCLIDE	Committed effective dose per unit intake via ingestion (h) for members of the public							Derived activity concentration in water (DWC)					Critical concentration Bq/l	Critical age y
	Sv/Bq							Bq/l						
	AGE (g)	≤ 1 y	AGE (g)	1-2 y	2-7 y	7-10 y	>17 y	≤ 1 y	1-2 y	2-7 y	7-10 y	>17 y		
$f_1$ for g ≤ 1y	h(g)	$f_1$ for g > 1y	h(g)	h(g)	h(g)	h(g)	DWC	DWC	DWC	DWC	DWC			
<b>Neptunium</b>														
Np-232	5.0E-03	8.7E-11	5.0E-04	5.1E-11	2.7E-11	1.7E-11	9.7E-12	4.6E+03	5.6E+03	1.1E+04	1.7E+04	1.4E+04	4.6E+03	≤ 1
Np-233	5.0E-03	2.1E-11	5.0E-04	1.3E-11	6.6E-12	4.0E-12	2.2E-12	1.9E+04	2.2E+04	4.3E+04	7.1E+04	6.2E+04	1.9E+04	≤ 1
Np-234	5.0E-03	6.2E-09	5.0E-04	4.4E-09	2.4E-09	1.6E-09	8.1E-10	6.5E+01	6.5E+01	1.2E+02	1.8E+02	1.7E+02	6.5E+01	≤ 1
Np-235	5.0E-03	7.1E-10	5.0E-04	4.1E-10	2.0E-10	1.2E-10	5.3E-11	5.6E+02	7.0E+02	1.4E+03	2.4E+03	2.6E+03	5.6E+02	≤ 1
Np-236	5.0E-03	1.9E-07	5.0E-04	2.4E-08	1.8E-08	1.8E-08	1.7E-08	2.1E+00	1.2E+01	1.6E+01	1.6E+01	8.1E+00	2.1E+00	≤ 1
Np-236	5.0E-03	2.5E-09	5.0E-04	1.3E-09	6.6E-10	4.0E-10	1.9E-10	1.6E+02	2.2E+02	4.3E+02	7.1E+02	7.2E+02	1.6E+02	≤ 1
Np-237	5.0E-03	2.0E-06	5.0E-04	2.1E-07	1.4E-07	1.1E-07	1.1E-07	2.0E-01	1.4E+00	2.0E+00	2.6E+00	1.2E+00	2.0E-01	≤ 1
Np-238	5.0E-03	9.5E-09	5.0E-04	6.2E-09	3.2E-09	1.9E-09	9.1E-10	4.2E+01	4.6E+01	8.9E+01	1.5E+02	1.5E+02	4.2E+01	≤ 1
Np-239	5.0E-03	8.9E-09	5.0E-04	5.7E-09	2.9E-09	1.7E-09	8.0E-10	4.5E+01	5.0E+01	9.9E+01	1.7E+02	1.7E+02	4.5E+01	≤ 1
Np-240	5.0E-03	8.7E-10	5.0E-04	5.2E-10	2.6E-10	1.6E-10	8.2E-11	4.6E+02	5.5E+02	1.1E+03	1.8E+03	1.7E+03	4.6E+02	≤ 1
<b>Plutonium</b>														
Pu-234	5.0E-03	2.1E-09	5.0E-04	1.1E-09	5.5E-10	3.3E-10	1.6E-10	1.9E+02	2.6E+02	5.2E+02	8.7E+02	8.6E+02	1.9E+02	≤ 1
Pu-235	5.0E-03	2.2E-11	5.0E-04	1.3E-11	6.5E-12	3.9E-12	2.1E-12	1.8E+04	2.2E+04	4.4E+04	7.3E+04	6.5E+04	1.8E+04	≤ 1
Pu-236	5.0E-03	2.1E-06	5.0E-04	2.2E-07	1.4E-07	1.0E-07	8.7E-08	1.9E-01	1.3E+00	2.0E+00	2.9E+00	1.6E+00	1.9E-01	≤ 1
Pu-237	5.0E-03	1.1E-09	5.0E-04	6.9E-10	3.6E-10	2.2E-10	1.0E-10	3.6E+02	4.1E+02	7.9E+02	1.3E+03	1.4E+03	3.6E+02	≤ 1
Pu-238	5.0E-03	4.0E-06	5.0E-04	4.0E-07	3.1E-07	2.4E-07	2.3E-07	1.0E-01	7.1E-01	9.2E-01	1.2E+00	6.0E-01	1.0E-01	≤ 1
Pu-239	5.0E-03	4.2E-06	5.0E-04	4.2E-07	3.3E-07	2.7E-07	2.5E-07	9.5E-02	6.8E-01	8.7E-01	1.1E+00	5.5E-01	9.5E-02	≤ 1
Pu-240	5.0E-03	4.2E-06	5.0E-04	4.2E-07	3.3E-07	2.7E-07	2.5E-07	9.5E-02	6.8E-01	8.7E-01	1.1E+00	5.5E-01	9.5E-02	≤ 1
Pu-241	5.0E-03	5.6E-08	5.0E-04	5.7E-09	5.5E-09	5.1E-09	4.8E-09	7.1E+00	5.0E+01	5.2E+01	5.6E+01	2.9E+01	7.1E+00	≤ 1
Pu-242	5.0E-03	4.0E-06	5.0E-04	4.0E-07	3.2E-07	2.6E-07	2.4E-07	1.0E-01	7.1E-01	8.9E-01	1.1E+00	5.7E-01	1.0E-01	≤ 1
Pu-243	5.0E-03	1.0E-09	5.0E-04	6.2E-10	3.1E-10	1.8E-10	8.5E-11	4.0E+02	4.6E+02	9.2E+02	1.6E+03	1.6E+03	4.0E+02	≤ 1

continue

Table 1. (continue)

NUCLIDE	Committed effective dose per unit intake via ingestion (h) for members of the public Sv/Bq							Derived activity concentration in water (DWC) Bq/l					Critical concentration Bq/l	Critical age y
	AGE (g)	≤ 1 y	AGE (g)	1-2 y	2-7 y	7-10 y	>17 y	≤ 1 y	1-2 y	2-7 y	7-10 y	>17 y		
	f <sub>i</sub> for g ≤1y	h(g)	f <sub>i</sub> for g > 1y	h(g)	h(g)	h(g)	h(g)	DWC	DWC	DWC	DWC	DWC		
Pu-244	5.0E-03	4.0E-06	5.0E-04	4.1E-07	3.2E-07	2.6E-07	2.4E-07	1.0E-01	7.0E-01	8.9E-01	1.1E+00	5.7E-01	1.0E-01	≤ 1
Pu-245	5.0E-03	8.0E-09	5.0E-04	5.1E-09	2.6E-09	1.5E-09	7.2E-10	5.0E+01	5.6E+01	1.1E+02	1.9E+02	1.9E+02	5.0E+01	≤ 1
Pu-246	5.0E-03	3.6E-08	5.0E-04	2.3E-08	1.2E-08	7.1E-09	3.3E-09	1.1E+01	1.2E+01	2.4E+01	4.0E+01	4.2E+01	1.1E+01	≤ 1
<b>Americium</b>														
Am-237	5.0E-03	1.7E-10	5.0E-04	1.0E-10	5.5E-11	3.3E-11	1.8E-11	2.4E+03	2.9E+03	5.2E+03	8.7E+03	7.6E+03	2.4E+03	≤ 1
Am-238	5.0E-03	2.5E-10	5.0E-04	1.6E-10	9.1E-11	5.9E-11	3.2E-11	1.6E+03	1.8E+03	3.1E+03	4.8E+03	4.3E+03	1.6E+03	≤ 1
Am-239	5.0E-03	2.6E-09	5.0E-04	1.7E-09	8.4E-10	5.1E-10	2.4E-10	1.5E+02	1.7E+02	3.4E+02	5.6E+02	5.7E+02	1.5E+02	≤ 1
Am-240	5.0E-03	4.7E-09	5.0E-04	3.3E-09	1.8E-09	1.2E-09	5.8E-10	8.5E+01	8.7E+01	1.6E+02	2.4E+02	2.4E+02	8.5E+01	≤ 1
Am-241	5.0E-03	3.7E-06	5.0E-04	3.7E-07	2.7E-07	2.2E-07	2.0E-07	1.1E-01	7.7E-01	1.1E+00	1.3E+00	6.8E-01	1.1E-01	≤ 1
Am-242	5.0E-03	5.0E-09	5.0E-04	2.2E-09	1.1E-09	6.4E-10	3.0E-10	8.0E+01	1.3E+02	2.6E+02	4.5E+02	4.6E+02	8.0E+01	≤ 1
Am-242m	5.0E-03	3.1E-06	5.0E-04	3.0E-07	2.3E-07	2.0E-07	1.9E-07	1.3E-01	9.5E-01	1.2E+00	1.4E+00	7.2E-01	1.3E-01	≤ 1
Am-243	5.0E-03	3.6E-06	5.0E-04	3.7E-07	2.7E-07	2.2E-07	2.0E-07	1.1E-01	7.7E-01	1.1E+00	1.3E+00	6.8E-01	1.1E-01	≤ 1
Am-244	5.0E-03	4.9E-09	5.0E-04	3.1E-09	1.6E-09	9.6E-10	4.6E-10	8.2E+01	9.2E+01	1.8E+02	3.0E+02	3.0E+02	8.2E+01	≤ 1
Am-244m	5.0E-03	3.7E-10	5.0E-04	2.0E-10	9.6E-11	5.5E-11	2.9E-11	1.1E+03	1.4E+03	3.0E+03	5.2E+03	4.7E+03	1.1E+03	≤ 1
Am-245	5.0E-03	6.8E-10	5.0E-04	4.5E-10	2.2E-10	1.3E-10	6.2E-11	5.9E+02	6.3E+02	1.3E+03	2.2E+03	2.2E+03	5.9E+02	≤ 1
Am-246	5.0E-03	6.7E-10	5.0E-04	3.8E-10	1.9E-10	1.1E-10	5.8E-11	6.0E+02	7.5E+02	1.5E+03	2.6E+03	2.4E+03	6.0E+02	≤ 1
Am-246m	5.0E-03	3.9E-10	5.0E-04	2.2E-10	1.1E-10	6.4E-11	3.4E-11	1.0E+03	1.3E+03	2.6E+03	4.5E+03	4.0E+03	1.0E+03	≤ 1
<b>Curium</b>														
Cm-238	5.0E-03	7.8E-10	5.0E-04	4.9E-10	2.6E-10	1.6E-10	8.0E-11	5.1E+02	5.8E+02	1.1E+03	1.8E+03	1.7E+03	5.1E+02	≤ 1
Cm-240	5.0E-03	2.2E-07	5.0E-04	4.8E-08	2.5E-08	1.5E-08	7.6E-09	1.8E+00	6.0E+00	1.1E+01	1.9E+01	1.8E+01	1.8E+00	≤ 1
Cm-241	5.0E-03	1.1E-08	5.0E-04	5.7E-09	3.0E-09	1.9E-09	9.1E-10	3.6E+01	5.0E+01	9.5E+01	1.5E+02	1.5E+02	3.6E+01	≤ 1
Cm-242	5.0E-03	5.9E-07	5.0E-04	7.6E-08	3.9E-08	2.4E-08	1.2E-08	6.8E-01	3.8E+00	7.3E+00	1.2E+01	1.1E+01	6.8E-01	≤ 1

continue

Table 1. (continue)

NUCLIDE	Committed effective dose per unit intake via ingestion (h) for members of the public Sv/Bq							Derived activity concentration in water (DWC) Bq/l					Critical concentration Bq/l	Critical age y
	AGE (g)	≤ 1 y	AGE (g)	1-2 y	2-7 y	7-10 y	>17 y	≤ 1 y	1-2 y	2-7 y	7-10 y	>17 y		
	f <sub>1</sub> for g ≤1y	h(g)	f <sub>1</sub> for g > 1y	h(g)	h(g)	h(g)	h(g)	DWC	DWC	DWC	DWC	DWC		
Cm-243	5.0E-03	3.2E-06	5.0E-04	3.3E-07	2.2E-07	1.6E-07	1.5E-07	1.3E-01	8.7E-01	1.3E+00	1.8E+00	9.1E-01	1.3E-01	≤ 1
Cm-244	5.0E-03	2.9E-06	5.0E-04	2.9E-07	1.9E-07	1.4E-07	1.2E-07	1.4E-01	9.9E-01	1.5E+00	2.0E+00	1.1E+00	1.4E-01	≤ 1
Cm-245	5.0E-03	3.7E-06	5.0E-04	3.7E-07	2.8E-07	2.3E-07	2.1E-07	1.1E-01	7.7E-01	1.0E+00	1.2E+00	6.5E-01	1.1E-01	≤ 1
Cm-246	5.0E-03	3.7E-06	5.0E-04	3.7E-07	2.8E-07	2.2E-07	2.1E-07	1.1E-01	7.7E-01	1.0E+00	1.3E+00	6.5E-01	1.1E-01	≤ 1
Cm-247	5.0E-03	3.4E-06	5.0E-04	3.5E-07	2.6E-07	2.1E-07	1.9E-07	1.2E-01	8.2E-01	1.1E+00	1.4E+00	7.2E-01	1.2E-01	≤ 1
Cm-248	5.0E-03	1.4E-05	5.0E-04	1.4E-06	1.0E-06	8.4E-07	7.7E-07	2.9E-02	2.0E-01	2.9E-01	3.4E-01	1.8E-01	2.9E-02	≤ 1
Cm-249	5.0E-03	3.9E-10	5.0E-04	2.2E-10	1.1E-10	6.1E-11	3.1E-11	1.0E+03	1.3E+03	2.6E+03	4.7E+03	4.4E+03	1.0E+03	≤ 1
Cm-250	5.0E-03	7.8E-05	5.0E-04	8.2E-06	6.0E-06	4.9E-06	4.4E-06	5.1E-03	3.5E-02	4.8E-02	5.8E-02	3.1E-02	5.1E-03	≤ 1
<b>Berkelium</b>														
Bk-245	5.0E-03	6.1E-09	5.0E-04	3.9E-09	2.0E-09	1.2E-09	5.7E-10	6.6E+01	7.3E+01	1.4E+02	2.4E+02	2.4E+02	6.6E+01	≤ 1
Bk-246	5.0E-03	3.7E-09	5.0E-04	2.6E-09	1.4E-09	9.4E-10	4.8E-10	1.1E+02	1.1E+02	2.0E+02	3.0E+02	2.9E+02	1.1E+02	≤ 1
Bk-247	5.0E-03	8.9E-06	5.0E-04	8.6E-07	6.3E-07	4.6E-07	3.5E-07	4.5E-02	3.3E-01	4.5E-01	6.2E-01	3.9E-01	4.5E-02	≤ 1
Bk-249	5.0E-03	2.2E-08	5.0E-04	2.9E-09	1.9E-09	1.4E-09	9.7E-10	1.8E+01	9.9E+01	1.5E+02	2.0E+02	1.4E+02	1.8E+01	≤ 1
Bk-250	5.0E-03	1.5E-09	5.0E-04	8.5E-10	4.4E-10	2.7E-10	1.4E-10	2.7E+02	3.4E+02	6.5E+02	1.1E+03	9.8E+02	2.7E+02	≤ 1
<b>Californium</b>														
Cf-244	5.0E-03	9.8E-10	5.0E-04	4.8E-10	2.4E-10	1.3E-10	7.0E-11	4.1E+02	6.0E+02	1.2E+03	2.2E+03	2.0E+03	4.1E+02	≤ 1
Cf-246	5.0E-03	5.0E-08	5.0E-04	2.4E-08	1.2E-08	7.3E-09	3.3E-09	8.0E+00	1.2E+01	2.4E+01	3.9E+01	4.2E+01	8.0E+00	≤ 1
Cf-248	5.0E-03	1.5E-06	5.0E-04	1.6E-07	9.9E-08	6.0E-08	2.8E-08	2.7E-01	1.8E+00	2.9E+00	4.8E+00	4.9E+00	2.7E-01	≤ 1
Cf-249	5.0E-03	9.0E-06	5.0E-04	8.7E-07	6.4E-07	4.7E-07	3.5E-07	4.4E-02	3.3E-01	4.5E-01	6.1E-01	3.9E-01	4.4E-02	≤ 1
Cf-250	5.0E-03	5.7E-06	5.0E-04	5.5E-07	3.7E-07	2.3E-07	1.6E-07	7.0E-02	5.2E-01	7.7E-01	1.2E+00	8.6E-01	7.0E-02	≤ 1

continue

Table 1. (continue)

NUCLIDE	Committed effective dose per unit intake via ingestion (h) for members of the public Sv/Bq							Derived activity concentration in water (DWC) Bq/l					Critical concentration Bq/l	Critical age y
	AGE (g)	≤ 1 y	AGE (g)	1-2 y	2-7 y	7-10 y	>17 y	≤ 1 y	1-2 y	2-7 y	7-10 y	>17 y		
	f <sub>1</sub> for g ≤1y	h(g)	f <sub>1</sub> for g > 1y	h(g)	h(g)	h(g)	h(g)	DWC	DWC	DWC	DWC	DWC		
Cf-251	5.0E-03	9.1E-06	5.0E-04	8.8E-07	6.5E-07	4.7E-07	3.6E-07	4.4E-02	3.2E-01	4.4E-01	6.1E-01	3.8E-01	4.4E-02	≤ 1
Cf-252	5.0E-03	5.0E-06	5.0E-04	5.1E-07	3.2E-07	1.9E-07	9.0E-08	8.0E-02	5.6E-01	8.9E-01	1.5E+00	1.5E+00	8.0E-02	≤ 1
Cf-253	5.0E-03	1.0E-07	5.0E-04	1.1E-08	6.0E-09	3.7E-09	1.4E-09	4.0E+00	2.6E+01	4.8E+01	7.7E+01	9.8E+01	4.0E+00	≤ 1
Cf-254	5.0E-03	1.1E-05	5.0E-04	2.6E-06	1.4E-06	8.4E-07	4.0E-07	3.6E-02	1.1E-01	2.0E-01	3.4E-01	3.4E-01	3.6E-02	≤ 1
<b>Einsteinium</b>														
Es-250	5.0E-03	2.3E-10	5.0E-04	9.9E-11	5.7E-11	3.7E-11	2.1E-11	1.7E+03	2.9E+03	5.0E+03	7.7E+03	6.5E+03	1.7E+03	≤ 1
Es-251	5.0E-03	1.9E-09	5.0E-04	1.2E-09	6.1E-10	3.7E-10	1.7E-10	2.1E+02	2.4E+02	4.7E+02	7.7E+02	8.1E+02	2.1E+02	≤ 1
Es-253	5.0E-03	1.7E-07	5.0E-04	4.5E-08	2.3E-08	1.4E-08	6.1E-09	2.4E+00	6.3E+00	1.2E+01	2.0E+01	2.2E+01	2.4E+00	≤ 1
Es-254	5.0E-03	1.4E-06	5.0E-04	1.6E-07	9.8E-08	6.0E-08	2.8E-08	2.9E-01	1.8E+00	2.9E+00	4.8E+00	4.9E+00	2.9E-01	≤ 1
Es-254m	5.0E-03	5.7E-08	5.0E-04	3.0E-08	1.5E-08	9.1E-09	4.2E-09	7.0E+00	9.5E+00	1.9E+01	3.1E+01	3.3E+01	7.0E+00	≤ 1
<b>Fermium</b>														
Fm-252	5.0E-03	3.8E-08	5.0E-04	2.0E-08	9.9E-09	5.9E-09	2.7E-09	1.1E+01	1.4E+01	2.9E+01	4.8E+01	5.1E+01	1.1E+01	≤ 1
Fm-253	5.0E-03	2.5E-08	5.0E-04	6.7E-09	3.4E-09	2.1E-09	9.1E-10	1.6E+01	4.3E+01	8.4E+01	1.4E+02	1.5E+02	1.6E+01	≤ 1
Fm-254	5.0E-03	5.6E-09	5.0E-04	3.2E-09	1.6E-09	9.3E-10	4.4E-10	7.1E+01	8.9E+01	1.8E+02	3.1E+02	3.1E+02	7.1E+01	≤ 1
Fm-255	5.0E-03	3.3E-08	5.0E-04	1.9E-08	9.5E-09	5.6E-09	2.5E-09	1.2E+01	1.5E+01	3.0E+01	5.1E+01	5.5E+01	1.2E+01	≤ 1
Fm-257	5.0E-03	9.8E-07	5.0E-04	1.1E-07	6.5E-08	4.0E-08	1.5E-08	4.1E-01	2.6E+00	4.4E+00	7.1E+00	9.1E+00	4.1E-01	≤ 1
<b>Mendelevium</b>														
Md-257	5.0E-03	3.1E-09	5.0E-04	8.8E-10	4.5E-10	2.7E-10	1.2E-10	1.3E+02	3.2E+02	6.3E+02	1.1E+03	1.1E+03	1.3E+02	≤ 1
Md-258	5.0E-03	6.3E-07	5.0E-04	8.9E-08	5.0E-08	3.0E-08	1.3E-08	6.3E-01	3.2E+00	5.7E+00	9.5E+00	1.1E+01	6.3E-01	≤ 1