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**Doses to the Embryo/Fetus and Neonate from  
Intakes of Radionuclides by the Mother.**

**Part 2: Doses Received from Ingestion of Mothers' Milk**

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**Abstract**

This report considers the consequences of intakes of radionuclides by women who are nursing children where doses can be received by infants following ingestion of radionuclides in their mothers' milk. Estimates are given of potential doses to the infant following intakes by the mother of a selected range of radionuclides that might arise for different contamination scenarios in the workplace. Doses resulting from intakes by the mother before and during the period of breast feeding are presented and both acute and chronic (continuous) intake scenarios are considered.

Models have been developed for assessing the transfer of radionuclides to milk following intakes by the mother. They are adapted from the latest ICRP models for calculating dose coefficients for adults by adding routes of transfer from blood/plasma and from other tissues to milk, and subsequently to the infant. The models draw on literature reviews of available human and animal data. The models are used to calculate the fraction of the mother's intake that is transferred to the infant over the period of breast-feeding. This fraction is then used together with ingestion dose coefficients for infants to calculate committed doses to the infant. The models and dose coefficients given in this report are entirely consistent with those given by ICRP.

The dose coefficients for the infant calculated in this report are compared to the dose coefficients recommended by ICRP for workers. Of particular interest are cases where the offspring dose is greater than, or a significant fraction of, the worker dose since these are the cases where the normal standards for protection of workers may not afford sufficient protection to the offspring. Noteworthy examples are calcium-45, iodine-131, tritiated water and strontium-90, although other radionuclides also fall into this category.

Doses to the fetus and child resulting from transfer of radionuclides to the fetus *in utero* were considered in Part 1 of this report.

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## Contents

<b>1</b>	<b>Introduction</b>	<b>1</b>
<b>2</b>	<b>Transfer of radioactivity to milk</b>	<b>2</b>
2.1	Background	2
2.2	Physiologically-based models	2
2.3	Simple chain models	3
2.4	Independent biokinetics for decay products	4
2.5	Models for the period of pregnancy	5
<b>3</b>	<b>Calculation of dose to the infant</b>	<b>5</b>
<b>4</b>	<b>Results</b>	<b>6</b>
4.1	Comparison with worker dose coefficients	7
<b>5</b>	<b>Conclusions</b>	<b>9</b>
<b>6</b>	<b>Quality Assurance</b>	<b>9</b>
<b>7</b>	<b>References</b>	<b>9</b>
	<b>ANNEX A: Models for individual Elements</b>	<b>18</b>
	<b>ANNEX B: Dose Coefficients</b>	<b>28</b>
	<b>ANNEX C: Comparison of dose coefficients to the offspring with doses coefficients for workers taken from ICRP Publication 68</b>	<b>73</b>
	<b>ANNEX D: ERRATUM</b>	<b>108</b>

## 1 Introduction

Doses to the fetus and child resulting from transfer of radionuclides to the fetus *in utero* following intakes by the mother were considered in Part 1 of this report (Phipps *et al.*, 2001). Subsequently NRPB has issued guidance on the practical application of fetal dose coefficients in occupational and environmental situations (NRPB, 2005).

This report considers the consequences of intakes of radionuclides by women who are nursing children where doses can be received by the infant following ingestion of radionuclides in mother's milk. Estimates are given of potential doses to the infant following intakes by the mother of a selected range of radionuclides that might arise for different contamination scenarios in the workplace. The radionuclides covered are of interest from both routine operations and accidental releases. Doses resulting from intakes by the mother before and during the period of breast feeding are presented and both acute (single) and chronic (continuous) intake scenarios are considered. This report considers the same radionuclides as did Part 1 (Phipps *et al.*, 2001) with the exception of  $^{210}\text{Bi}$  for which no data were available on which to base a milk transfer model.

Biokinetic models for the behaviour of radionuclides in adults, developed by the International Commission on Radiological Protection (ICRP), have been extended to include transfer of radionuclides from blood, plasma and other tissues to milk. The information used to model transfer to milk was based on a review of the available human and animal data. Having computed radionuclide transfer to milk for each of the intake scenarios considered, the committed dose to the infant was calculated using published ICRP dose coefficients for the 3-month-old infant. The models and dose coefficients given in this report are entirely consistent with those given by ICRP (in press).

There is some scope for doses to be received by the infant from photon irradiation from activity in the mother's tissues, for example for  $^{137}\text{Cs}$ . This contribution to exposure is not addressed in this report, but is considered by Hunt *et al.* (2005) and will be included in a forthcoming ICRP report (ICRP, in press). On the basis of the assumption made by Hunt *et al.* (2005) for mother-infant contact times, the results obtained for a number of example radionuclides show that it is possible for external dose from maternal tissues to dominate the total effective dose to the infant (eg from inhaled insoluble  $^{60}\text{Co}$ ), while transfer in milk was more important for most cases considered (eg ingestion of  $^{60}\text{Co}$ ,  $^{137}\text{Cs}$ ,  $^{131}\text{I}$ ).

## **2 Transfer of radioactivity to milk**

### **2.1 Background**

Human milk production varies substantially between individuals and there is an extremely wide variation around the world in the duration of breast-feeding and in the time at which women choose to begin weaning their child (Harrison *et al.*, 2003). These variations are, however, less wide within the UK. The time taken to introduce solid food and cease milk consumption is also very variable. However, all studies show rapid increase in milk production and consumption during the first weeks after birth, followed by a slower increase over the subsequent months (eg Neville *et al.*, 1988, 1991). For the purposes of this report, it is assumed that consumption increases to 800 ml d<sup>-1</sup> over the first week and continues at this level to 6 months of age; this is consistent with the approach adopted by ICRP (ICRP, in press). No subsequent intake of milk is considered and no account is taken of the progressive reduction in consumption during weaning. However, the possibility of continued feeding beyond 6 months should be recognised. The information provided in this report should enable assessment to be made of likely doses in situations that differ from default assumptions; more details are given by ICRP (in press).

The approach adopted in this report, and by ICRP (in press), is to extend ICRP biokinetic models for adults (ICRP, 1989; 1993; 1995a and b and others) to compute transfer to milk using relevant human and animal data on elemental and radionuclide transfer to milk; details are given in Annex A. Although the quality of the available data varies widely, there is sufficient quantitative information in most cases on which to base specific estimates of the rate of transfer from mothers' blood to milk. Exceptional cases for which a default assumption of 5% transfer was made on the basis of poor data and/or chemical analogy are ruthenium, polonium, thorium and uranium.

### **2.2 Physiologically-based models**

Many of the most recent ICRP biokinetic models, eg that for plutonium, are so-called recycling models (Annex A). They are physiologically-based in that activity is initially taken up into blood or plasma from where it is deposited in certain organs or tissues. Activity is recycled back to blood/plasma from where it can be excreted or re-deposited in other tissues. These models are readily extended by the addition of transfers representing secretion in milk since the amount of activity in the blood/plasma compartment at all times is an integral part of the model; thus the transfer to milk can be modelled directly from blood/plasma (fig. 1). For example, the available biological data for the actinide elements is in terms of milk: blood (or milk: plasma) concentration ratios. The amount of milk produced per day is taken to be 800 ml (section 2.1) and

the volume of the blood/plasma pool is taken to be 2400 ml (ICRP, 2005). Thus, the rate constant for transfer to milk is given by  $800/2400 \times \text{milk: blood concentration ratio}$ . For example for Pu the concentration ratio is taken to be 0.1, thus the milk transfer rate is  $0.033 \text{ d}^{-1}$ .

However, it should be noted that although the models can readily be used in this way, undue reliance should not be placed on their representation of time-dependent concentration of radionuclides in blood plasma.

### **2.3 Simple chain models**

Many biokinetic models (eg. zinc, caesium) do not include recycling between blood and tissues. Rather, they consist of a "transfer compartment" (TC1) representing blood, with one-way transfer to compartments representing systemic tissues, and subsequent transfers to excretion (Annex A). The retention half-time for TC1 is typically 0.25 days. Since retention in blood is not explicitly modelled by this approach, it is not possible to model transfer to milk simply as transfer from blood. However, short-term excretion is modelled by a fractional transfer direct from TC1 and this can be used as a basis for the time-course of transfer of radionuclides to milk.

To adapt most of the non-recycling models to include transfer to milk, a second transfer compartment (TC2) has been added to receive activity released from body tissues (fig. 2). A transfer to breast and milk is then taken from both transfer compartments, TC1 and TC2, to supply breast milk with the amount indicated by the available data. The retention half-time for TC2 is taken to be the same as that for TC1. For most of the elements considered with models of this type, data are available for dietary intakes and milk concentrations of the stable element. TC1 and TC2 are assumed to supply the same proportions of the total transfer of a radionuclide to milk as the proportions excreted from the two transfer compartments; that is, the time-course of transfer to milk and excretion are taken to reflect changes in blood levels in the same way. For example, in the standard adult model 20% of the magnesium reaching blood is taken to be excreted promptly, therefore prompt transfer from TC1 is assumed to account for 20% of the total transfer to milk (Section 5.4). For elements such as potassium, for which there is no direct excretion from TC1, all transfer to milk is taken from TC2.

In the case of the non-recycling model for tritiated water (HTO) and organically bound tritium (OBT), a second transfer compartment (TC2, described above) has not been included. Transfers to milk were taken directly from each of the whole-body compartments, corresponding to secretion of HTO and OBT into milk (Annex A). Since

the model for carbon has only one whole-body compartment, a TC2 compartment was not added.

#### **2.4 Independent biokinetics for decay products**

In ICRP Publications 67, 69, and 71 (ICRP, 1993; 1995a; b) doses from decay products formed within the body following the intake of radioisotopes of tellurium, lead, radium, thorium, and uranium were evaluated based on the biokinetic behaviour of the specific decay product; so-called independent kinetics. Decay products of other radionuclides were evaluated in the manner of ICRP Publication 30 (ICRP, 1979); that is, the kinetics of the parent of the chains were assigned to the decay products; often referred to as shared kinetics. This approach was extended to ICRP Publication 88 (ICRP, 2001) and Part 1 of this report (Phipps *et al.*, 2001), and is also adopted here. This is achieved by applying the treatment described above to the biokinetic models used to describe the movement of activity in the mother's body, and in addition, using element-specific rate constants for transfer to breast milk for each decay product where independent kinetics are used for the mother.

Thus, the milk transfer rate constants for I, Po, Pb, Ra, Th and U derived in Annex A are also used when these elements occur as decay products. For example, following intakes of  $^{210}\text{Pb}$  the rate constant for transfer to milk specific to polonium is used for  $^{210}\text{Po}$  that in-grows from  $^{210}\text{Pb}$ .

In some cases, milk transfer rate constants are required for elements that were not chosen for study in this report. For example,  $^{210}\text{Bi}$  appears in the decay chain of  $^{210}\text{Pb}$ , but bismuth is not considered in Annex A. In all, this complication arises for isotopes of actinium, astatine, bismuth, francium, palladium and thallium. Recycling models for these elements have been given previously in ICRP Publication 71 (ICRP, 1995b), thus the concentration ratio method described in section 2.2 can be applied. No human data appear to be available on the transfer of these elements to milk. Therefore, a milk: blood plasma concentration ratio of 1 was used for isotopes of these elements, corresponding to a transfer rate of  $0.33\text{ d}^{-1}$ ; this assumption is considered to be conservative.

Radon is known to be readily absorbed from the alimentary tract (NRC, 1999) and may be expected to pass into breast milk. Stabin and Breitz (2000) noted that the chemically similar  $^{133}\text{Xe}$  has been detected in breast milk in several cases of the use of  $^{133}\text{Xe}$  for lung imaging. In the absence of quantitative data, a milk: blood plasma concentration ratio of 1 was assumed for isotopes of radon. Since systemic radon is lost rapidly via the mother's lungs, only a small proportion will be transferred to milk. It is

assumed that there is no loss of radon during the passage of milk from the breast to the infant.

## **2.5 Models for the period of pregnancy**

For radionuclide intakes by the mother during pregnancy, in keeping with Part 1 of this report, increased gut absorption is taken into account: during pregnancy and lactation in the case of iron; and during pregnancy only for the alkaline earth elements (Ca, Sr, Ba, Ra).

In Part 1, changes in systemic biokinetics during pregnancy were taken into account for the alkaline earth elements, iodine and caesium. However, the differences in retention in maternal tissues that result from applying these changes, including transfer to the fetus, are small and are therefore not taken into account for the purposes of this report. However reduced retention of caesium during pregnancy is taken into account as this has a more significant effect.

## **3 Calculation of dose to the infant**

In this report, the total predicted activity of each member of the decay chain that reaches the infant over the six month suckling period is calculated. This activity (Bq) is then multiplied by the dose coefficient ( $\text{SvBq}^{-1}$ ) for ingestion by the 3-month-old infant. Most of these dose coefficients are taken from ICRP Publication 72 (ICRP, 1996), but those for short-lived radionuclides are not available from ICRP and were calculated specifically for this report.

The models used to calculate the dose coefficients for the infant by ingestion are those given in *ICRP Publications 56, 67, 69 and 71* (1989; 1993; 1995a and b). The models were specified for a 3-month-old infant and the dose coefficients derived were taken to apply to intakes at any time during the first year of life. For ingestion, account was taken of human and animal data showing that radionuclide absorption can be substantially greater in newborn infants than in adults.

The method above is a simple way of converting the ingested activity into a dose to the infant. Other methods were considered in which the model for the maternal body is connected, via a milk compartment, to the model for the neonate. This method would have the attraction that the growth of the infant during the suckling period (and hence the changes in masses etc.) and changes in intestinal absorption by the infant can be modelled. However, investigations considering the possibility of greater gut absorption shortly after birth, combined with the smaller mass of the newborn infant, have shown that underestimates of doses following maternal intake shortly after parturition would

not be large. For the examples of  $^{45}\text{Ca}$  and  $^{90}\text{Sr}$ , and the assumption of absorption by the newborn infant of between 0.8 and 1, compared with 0.6 for the 3 month-old infant, the committed effective dose would be up to twice the value obtained from the method used here (Smith *et al.*, 2003). For the examples of  $^{131}\text{I}$  and  $^{137}\text{Cs}$ , the increase in committed effective dose for intakes shortly after birth, determined only by mass differences (since absorption is considered to be complete at all ages), would be 1.6 times the value for the 3 month-old infant (Harrison *et al.*, 2003). Conversely, the assumption that milk consumption of  $800 \text{ ml d}^{-1}$  applies from birth will tend to overestimate doses for intakes shortly after birth. For these reasons, and also from considerations of simplicity and consistency with previous ICRP reports, ICRP has chosen to adopt the method outlined above, thus it is appropriate to also adopt this method in this report.

#### 4 Results

The Tables (Annex B) give equivalent doses to a selection of infant tissues and the effective dose to the infant. Results are given for intakes by the mother at a number of different times, known as scenarios, to permit the assessment of doses under various assumptions regarding intake. The intake scenarios considered in this report include and extend those considered in Part 1 for *in utero* exposure to radionuclides. Acute and chronic intakes by ingestion or inhalation are considered at times before and during pregnancy and during lactation. A range of acute intake times has been adopted: 2.5 years (130 weeks) and 6 months (26 weeks) prior to conception, at conception, at 5, 10, 15, 25 and 35 weeks of pregnancy, at parturition (birth), and 1, 5, 10, 15 and 20 weeks after birth. For continuous exposure, a constant intake is assumed to occur for one of four periods: for a period of 5 years (260 weeks) or 1 year (52 weeks) before conception, throughout pregnancy (38 weeks) or throughout lactation (26 weeks). The various times have been selected to permit doses to the offspring to be calculated for most possible patterns of intake of radionuclides by the mother and to reflect differences in doses to the offspring that can arise from intakes at various stages of development. In the chronic scenarios the rate of intake is taken to be constant and the intake per day is chosen so that intake over the whole period is 1 Bq. The acute scenarios also assume a unit intake. These scenarios are consistent with the approach adopted by ICRP (in press).

For ingestion and inhalation by the mother the values for fractional absorption from the gut ( $f_1$ ), and lung absorption Types are taken to be those used for workers in ICRP Publication 68 (ICRP, 1994a). Lung deposition fractions specific to female workers are used (ICRP, 1994b; ICRP, 2001).



Table 1 provides a comparison of the fractional transfer of radionuclides to breast milk following a single acute intake during pregnancy or lactation. Expressed as a proportion of activity reaching blood, estimated maximum transfers for intakes at one week after birth range from about: 50% for  $^{45}\text{Ca}$ ; 40% for  $^{60}\text{Co}$ ; 30% for  $^3\text{H}$  (as HTO or OBT),  $^{14}\text{C}$ ,  $^{90}\text{Sr}$  and  $^{131}\text{I}$ ; 5% for  $^{239}\text{Pu}$  and  $^{241}\text{Am}$ ; to less than 1% for  $^{42}\text{K}$ . Maximum transfer occurs at one week after birth because milk consumption is taken to increase linearly over the first week of life from zero to 800 ml per day, and subsequently remain constant until 6 months. The highest values for transfer to milk, as a proportion of amount ingested by the mother, are about 30% for  $^3\text{H}$  (as HTO or OBT),  $^{14}\text{C}$  and  $^{131}\text{I}$ , and 20% for  $^{137}\text{Cs}$  and  $^{45}\text{Ca}$ .

For a number of radionuclides, eg.  $^{210}\text{Pb}$ ,  $^{226}\text{Ra}$  and  $^{232}\text{Th}$ , the transfer of radioactive decay products to milk contributes significantly to the dose to the infant, with substantial differences in their contribution according to the intake scenario under consideration.

Doses following intakes during pregnancy potentially have three components: dose delivered *in utero* to the fetus; dose delivered postnatally to the child from activity retained in body tissues at birth; and dose from postnatal transfer of the radionuclide to the infant in breast milk, resulting from retention in maternal body tissues. These three components are distinguished in Figures 3 to 8 which show estimates of offspring dose for acute intakes at times before and during pregnancy as well as during lactation, for the examples of ingestion of  $^3\text{H}$  as HTO,  $^{45}\text{Ca}$ ,  $^{90}\text{Sr}$ ,  $^{131}\text{I}$  and  $^{137}\text{Cs}$  and  $^{239}\text{Pu}$ . For the example of  $^{90}\text{Sr}$  ingested at 35 weeks of pregnancy (3 weeks before birth), the dose to the offspring is largely delivered postnatally, due to retention in body tissue at birth and transfer in milk, whereas dose from  $^{131}\text{I}$  intake at 35 weeks is largely delivered *in utero*, with only a small postnatal component and negligible transfer in milk. Changes in dose for intakes at different times during lactation reflect the initial increase in milk production and consumption during the first week after birth and the assumed cessation of milk feeding at 6 months. For  $^{90}\text{Sr}$ , the dose for an intake at birth is somewhat greater than for intake 1 week after birth, as a result of the assumption of increased intestinal absorption of alkaline earth elements (see Ca, A8) throughout pregnancy, taken to decrease to normal levels over the first week after birth.

#### **4.1 Comparison with worker dose coefficients**

For occupational radiological protection it is important to compare the dose coefficient for the offspring given in this report with the dose coefficients for workers given in ICRP Publication 68 (ICRP, 1994a) since this can help to decide whether or not sufficient protection is being given to the offspring of women who work with radioactive

materials. Thus, Annex C compares doses to the offspring and the worker as a simple ratio (expressed as *per cent*). The following paragraphs discuss some of the results of this comparison; for simplicity, the discussion concentrates initially on intakes by ingestion. It should be noted that the comparison is with the reference dose coefficients for workers, not with dose coefficients for female workers, since ICRP has not published, and at present does not intend to publish, gender-specific dose coefficients.

Table 2 gives examples of the ratios of infant to adult dose for the acute intake scenario which gives the maximum transfer of radionuclides to milk. This is usually an intake by the mother at 1 week after birth (exceptions are the cases of isotopes of Ca and Sr where the elevated maternal gut uptake taken to apply at parturition leads to higher transfers for intakes at birth). The infant dose exceeds the adult dose only in the cases of  $^3\text{H}$  as tritiated water,  $^{45}\text{Ca}$  and  $^{131}\text{I}$ , with ratios of 1.2, 2.3 and 2.5, respectively. Ratios of 0.8 and 0.6 were obtained for ingestion of  $^3\text{H}$  as OBT and  $^{90}\text{Sr}$  respectively. For intakes by inhalation, ratios are generally lower than after ingestion, except in the cases of inhalation of HTO or  $^{131}\text{I}$  vapour (ratios of 1.2 and 2.5, respectively, as after ingestion).

It is helpful to compare the magnitudes of potential doses resulting from intakes during pregnancy with those resulting from intakes during lactation. Table 3 therefore gives results for chronic ingestion throughout pregnancy and for chronic ingestion throughout lactation. The results are expressed as ratios of fetal or infant dose to the corresponding adult dose so that, as well as elucidating the relative importance of doses due to breastfeeding and *in utero* exposure, a general understanding of the importance of these two routes of infant exposure can be gained.

The values presented illustrate that in most cases, doses received by the offspring as a result of radionuclide intake throughout pregnancy are substantially greater than corresponding doses resulting from intake throughout breast feeding. An exception is  $^{131}\text{I}$ , for which a ratio of 1.1 for *in utero* fetal exposure compares with a value of 2.5 for exposure of the infant via milk.

Table 3 also gives values for the fraction of total estimated dose (from intakes during pregnancy and lactation) to the offspring that is contributed by transfer of radionuclides in breast milk. Transfer in milk contributes about half or more than half of the total dose in the cases of  $^{60}\text{Co}$ ,  $^{99\text{m}}\text{Tc}$ ,  $^{131}\text{I}$ ,  $^{210}\text{Pb}$  and  $^{210}\text{Po}$ , and 1% or less of the total dose in a number of cases including  $^{144}\text{Ce}$  and  $^{239}\text{Pu}$ .

## 5 Conclusions

Methods have been developed for calculating committed doses to an infant resulting from intakes of radionuclides during breastfeeding. ICRP biokinetic models for adults have been adapted by adding routes of transfer from blood, plasma and other tissues to milk and thus to the infant. The dose coefficients for the offspring calculated in this report have been compared to the dose coefficients recommended by ICRP for workers (Annex C). Of particular interest are cases where the offspring dose is greater than, or comparable to, the worker dose. In the cases of  $^{45}\text{Ca}$  and  $^{131}\text{I}$  the offspring dose can be over twice the worker dose, while for intakes of other isotopes of iodine and tritiated water the offspring dose is often slightly higher than the worker dose. In addition, there are a number of radionuclides for which the offspring dose is a significant fraction of the worker dose (see Annex C).

The relevant regulations (HSC, 1999) are less detailed in their advice regarding breastfeeding than they are in advice regarding pregnancy, noting only the need to avoid "significant bodily contamination". In addition, it is noted (HSC, 1999, paragraph 142) that certain radionuclides can become concentrated in milk and that in these cases the dose to the infant could be of more concern than the dose to the mother.

A general implication of this report is that occupational intakes of some radionuclides, notably  $^{131}\text{I}$ , may need to be restricted to lower levels than would be necessary purely from a consideration of worker doses. This report thus reinforces the guidance already given by HSC (HSC, 2000; paragraph 142).

## 6 Quality Assurance

The internal dosimetry computer codes used for the calculations given in this report have been quality assured through extensive intercomparisons with codes at Oak Ridge National Laboratory in the USA and Bundesamt für Strahlenschutz in Germany. This quality assurance has been carried out over a number of years within the workplan of the ICRP Task Group on Dose Calculations.

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**Table 1. Transfer of radionuclides to breast milk, as a fraction of activity entering blood, and as a fraction of ingested activity following intakes early in lactation<sup>a</sup>.**

Radionuclide <sup>b</sup>	Fractional transfer from maternal blood to milk for intakes in lactation	
	Activity reaching blood	Ingested activity <sup>c</sup>
<sup>3</sup> H (HTO) <sup>d</sup>	$3.4 \times 10^{-1}$	$3.4 \times 10^{-1}$
<sup>3</sup> H (OBT) <sup>e</sup>	$2.9 \times 10^{-1}$	$2.9 \times 10^{-1}$
<sup>14</sup> C (organic)	$2.5 \times 10^{-1}$	$2.5 \times 10^{-1}$
<sup>22</sup> Na	$6.5 \times 10^{-2}$	$6.5 \times 10^{-2}$
<sup>28</sup> Mg	$3.8 \times 10^{-2}$	$1.9 \times 10^{-2}$
<sup>32</sup> P	$6.8 \times 10^{-2}$	$5.4 \times 10^{-2}$
<sup>35</sup> S (organic)	$4.5 \times 10^{-2}$	$4.5 \times 10^{-2}$
<sup>42</sup> K	$2.8 \times 10^{-3}$	$2.8 \times 10^{-3}$
<sup>45</sup> Ca	$5.3 \times 10^{-1}$	$1.6 \times 10^{-1}$
<sup>59</sup> Fe	$9.5 \times 10^{-2}$	$1.9 \times 10^{-3}$
<sup>60</sup> Co	$4.0 \times 10^{-1}$	$4.0 \times 10^{-2}$ ( $f_1=0.1$ )
<sup>65</sup> Zn	$6.0 \times 10^{-2}$	$3.0 \times 10^{-2}$
<sup>90</sup> Sr	$2.1 \times 10^{-1}$	$6.4 \times 10^{-2}$ ( $f_1=0.3$ )
<sup>106</sup> Ru	$4.8 \times 10^{-2}$	$2.4 \times 10^{-3}$
<sup>131</sup> I	$3.0 \times 10^{-1}$	$3.4 \times 10^{-1}$
<sup>137</sup> Cs	$1.8 \times 10^{-1}$	$1.8 \times 10^{-1}$
<sup>210</sup> Pb <sup>f</sup>	$3.0 \times 10^{-2}$	$3.0 \times 10^{-2}$
<sup>210</sup> Po	$4.0 \times 10^{-2}$	$3.2 \times 10^{-3}$
<sup>226</sup> Ra <sup>f</sup>	$3.0 \times 10^{-2}$	$6.0 \times 10^{-3}$
<sup>232</sup> Th <sup>f</sup>	$5.0 \times 10^{-2}$	$2.5 \times 10^{-5}$ ( $f_1=5 \times 10^{-4}$ )
<sup>238</sup> U	$5.0 \times 10^{-2}$	$1 \times 10^{-3}$ ( $f_1=0.02$ )
<sup>239</sup> Pu	$5.0 \times 10^{-2}$	$2.5 \times 10^{-5}$ ( $f_1=5 \times 10^{-4}$ )
<sup>241</sup> Am	$5.0 \times 10^{-2}$	$2.5 \times 10^{-5}$

<sup>a</sup>Intake within the 1 week after birth (allowing maximum transfer – see text).

<sup>b</sup>Selected from radionuclides considered in this report.

<sup>c</sup>Gut uptake fractions ( $f_1$ ) are given only in cases where results are available for more than one value.

<sup>d</sup>HTO = tritiated water.

<sup>e</sup>OBT = organically-bound tritium.

<sup>f</sup>Radionuclides for which the transfer of radioactive progeny to milk may contribute significantly to dose, depending on the intake time.

**Table 2. Ratios of infant dose to reference adult dose, considering transfer to milk after acute intake by the mother shortly after birth<sup>a</sup>.**

Radionuclide <sup>b</sup>	Ratio, for intake by:			
	Inh. Type F or V <sup>c</sup>	Inh. Type M <sup>c</sup>	Inh. Type S <sup>c</sup>	Ingestion <sup>d</sup>
<sup>3</sup> H (HTO) <sup>e</sup>	1.2 (V)			1.2
<sup>3</sup> H (OBT) <sup>f</sup>	0.87 (V)			0.84
<sup>14</sup> C (organic)	0.61 (V)			0.61
<sup>22</sup> Na	0.33			0.43
<sup>28</sup> Mg	0.17	0.06		0.10
<sup>32</sup> P	0.82	0.25		0.69
<sup>35</sup> S (organic)	0.40 (V)			0.45
<sup>42</sup> K	0.04			0.03
<sup>45</sup> Ca		0.42		2.9
<sup>59</sup> Fe	0.04	$9 \times 10^{-3}$		0.04
<sup>60</sup> Co		0.25	0.03	0.63 ( $f_1=0.1$ )
<sup>65</sup> Zn			0.17	0.28
<sup>90</sup> Sr	0.59		$4 \times 10^{-3}$	0.60 ( $f_1=0.3$ )
<sup>106</sup> Ru	0.12 (F or V)	0.02	$3 \times 10^{-3}$	0.03
<sup>131</sup> I	2.5 (F or V)			2.5
<sup>137</sup> Cs	0.27			0.29
<sup>210</sup> Pb	0.38			0.39
<sup>210</sup> Po	0.28	0.03		0.34
<sup>226</sup> Ra		$9 \times 10^{-3}$		0.10
<sup>232</sup> Th		$6 \times 10^{-4}$	$< 1 \times 10^{-4}$	$7 \times 10^{-4}$ ( $f_1=5 \times 10^{-4}$ )
<sup>238</sup> U	$7 \times 10^{-3}$	$8 \times 10^{-4}$	$< 1 \times 10^{-4}$	$8 \times 10^{-3}$ ( $f_1=0.02$ )
<sup>239</sup> Pu		$3 \times 10^{-4}$	$< 1 \times 10^{-4}$	$4 \times 10^{-4}$ ( $f_1=5 \times 10^{-4}$ )
<sup>241</sup> Am		$3 \times 10^{-4}$		$5 \times 10^{-4}$

<sup>a</sup>Intake at 1 week after birth (except <sup>45</sup>Ca and <sup>90</sup>Sr: see text); reference adult dose coefficients from *ICRP Publication 68* (1994a).

<sup>b</sup>Selected from radionuclides considered in this report.

<sup>c</sup>Default absorption Types (ICRP, 1996) are: F (fast), M (medium), S (slow), for inhaled particles. V (very fast) applies to complete and instantaneous absorption of vapours. In the second column (F or V) where no Type is given, results are for Type F. Results are not available for Types not considered in *ICRP Publication 68* (1994a).

<sup>d</sup>Gut uptake fractions ( $f_1$ ) are given only in cases where results are available for more than one value.

<sup>e</sup>HTO = tritiated water.

<sup>f</sup>OBT = organically-bound tritium.

**Table 3. Ratios of offspring dose to reference adult dose<sup>a</sup>, considering chronic ingestion by the mother throughout pregnancy and lactation.**

Radionuclide <sup>b, c</sup>	Ratio of offspring to adult dose for:			Chronic intake throughout pregnancy and lactation; fraction of offspring dose via milk <sup>d</sup>
	Chronic intake throughout pregnancy, exposure of:		Chronic intake throughout lactation, exposure of infant via milk	
	Fetus <sup>e</sup>	Infant via milk		
<sup>3</sup> H (HTO) <sup>f</sup>	1.7	0.06	1.1	0.41
<sup>3</sup> H (OBT) <sup>g</sup>	1.5	0.09	0.74	0.35
<sup>14</sup> C (organic)	1.4	0.12	0.45	0.29
<sup>22</sup> Na	1.1	0.02	0.40	0.28
<sup>28</sup> Mg	0.32	0	0.10	0.24
<sup>32</sup> P	10.4	1 x 10 <sup>-2</sup>	0.68	0.06
<sup>35</sup> S (organic)	2.1	0.12	0.31	0.17
<sup>42</sup> K	0.54	0	0.03	0.05
<sup>45</sup> Ca	11.4	0.25	2.2	0.18
<sup>59</sup> Fe	0.72	4 x 10 <sup>-3</sup>	0.04	0.06
<sup>60</sup> Co ( <i>f</i> <sub>1</sub> =0.1)	0.56	0.03	0.58	0.52
<sup>65</sup> Zn	1.1	0.08	0.21	0.20
<sup>90</sup> Sr ( <i>f</i> <sub>1</sub> =0.3)	1.5	0.07	0.54	0.29
<sup>106</sup> Ru	0.05	3 x 10 <sup>-3</sup>	0.03	0.40
<sup>131</sup> I	1.1	1 x 10 <sup>-3</sup>	2.52	0.70
<sup>137</sup> Cs	0.44	0.07	0.20	0.38
<sup>210</sup> Pb	0.21	0.08	0.32	0.66
<sup>210</sup> Po	0.11	0.03	0.30	0.75
<sup>226</sup> Ra	1.1	5 x 10 <sup>-3</sup>	0.10	0.09
<sup>232</sup> Th ( <i>f</i> <sub>1</sub> = 5 x 10 <sup>-4</sup> )	0.04	1 x 10 <sup>-4</sup>	6 x 10 <sup>-4</sup>	0.02
<sup>238</sup> U ( <i>f</i> <sub>1</sub> =0.02)	0.30	2 x 10 <sup>-4</sup>	8 x 10 <sup>-3</sup>	0.03
<sup>239</sup> Pu ( <i>f</i> <sub>1</sub> = 5 x 10 <sup>-4</sup> )	0.04	< 1 x 10 <sup>-4</sup>	4 x 10 <sup>-4</sup>	0.01
<sup>241</sup> Am	0.01	1 x 10 <sup>-4</sup>	4 x 10 <sup>-4</sup>	0.05

<sup>a</sup>Reference adult dose coefficients from ICRP Publication 68 (1994a).

<sup>b</sup>Selected from full list of radionuclides considered in this report.

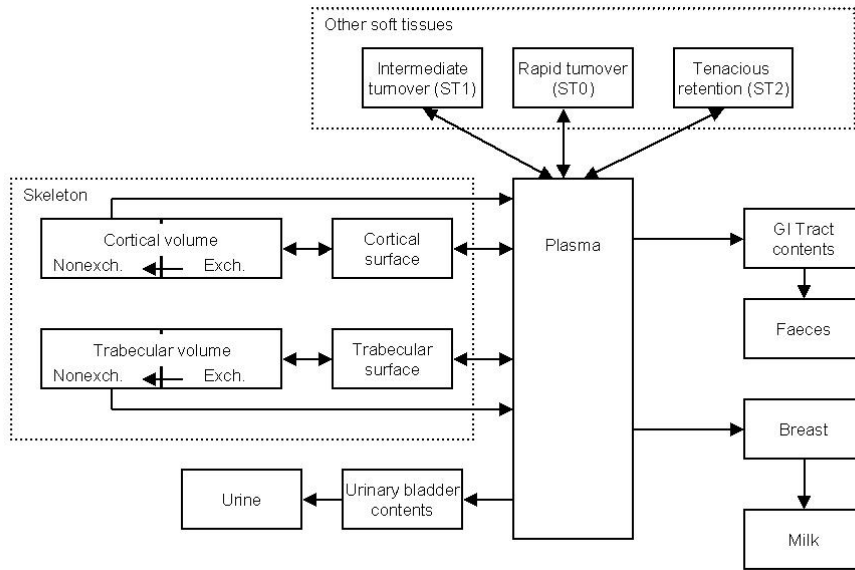
<sup>c</sup>Gut uptake fractions (*f*<sub>1</sub>) are given only in cases where results are available for more than one value.

<sup>d</sup>These results are the sum of columns 3 and 4 divided by the sum of columns 2, 3 and 4.

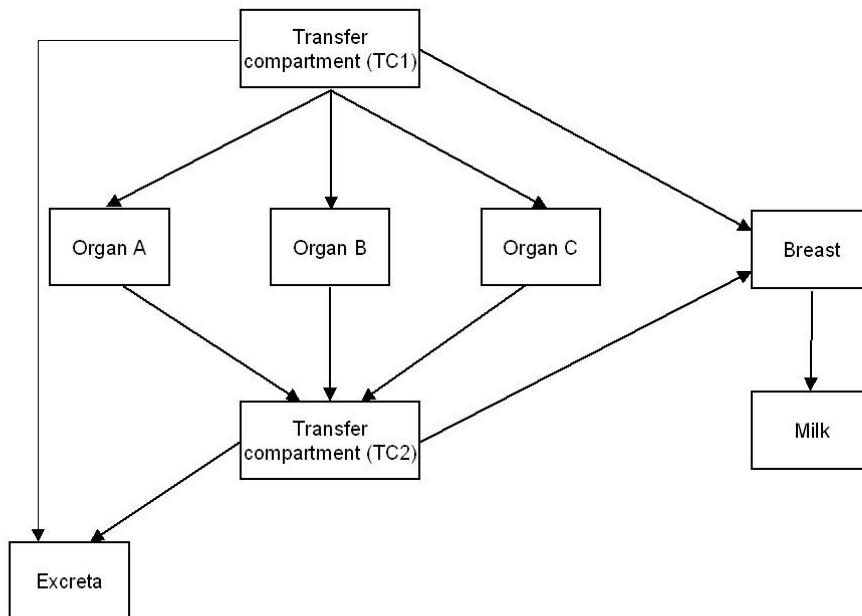
<sup>e</sup>Includes dose received *in utero* and from activity retained by the child at birth, taken from Part 1 of this report (Phipps *et al.*, 2001).

<sup>f</sup>HTO = tritiated water.

<sup>g</sup>OBT = organically-bound tritium.

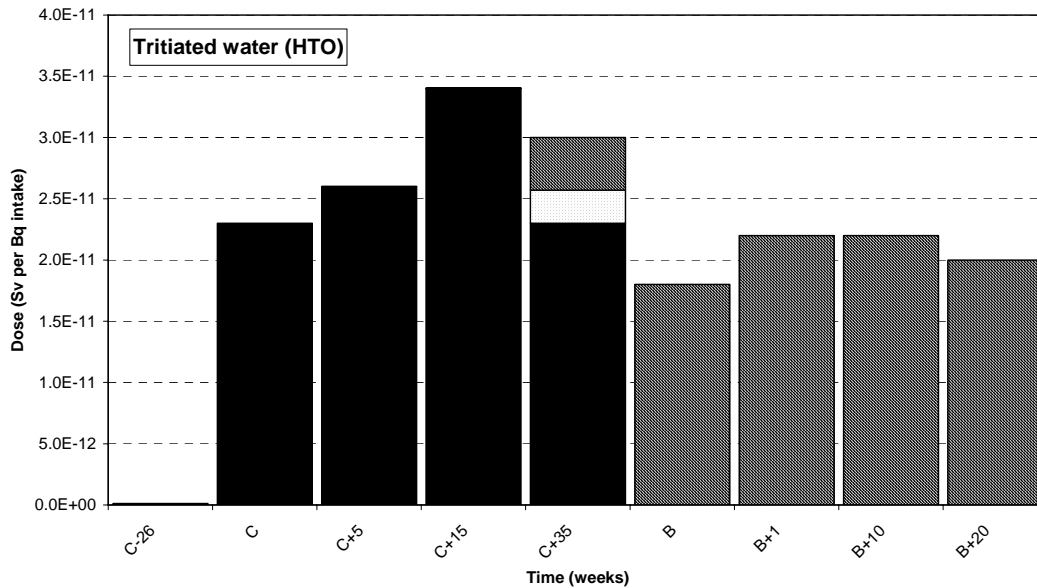


**Figure 1. Example of a recycling systemic model, the Publication 67 (ICRP, 1993) model for the alkaline earth elements, including transfer to breast and milk.**

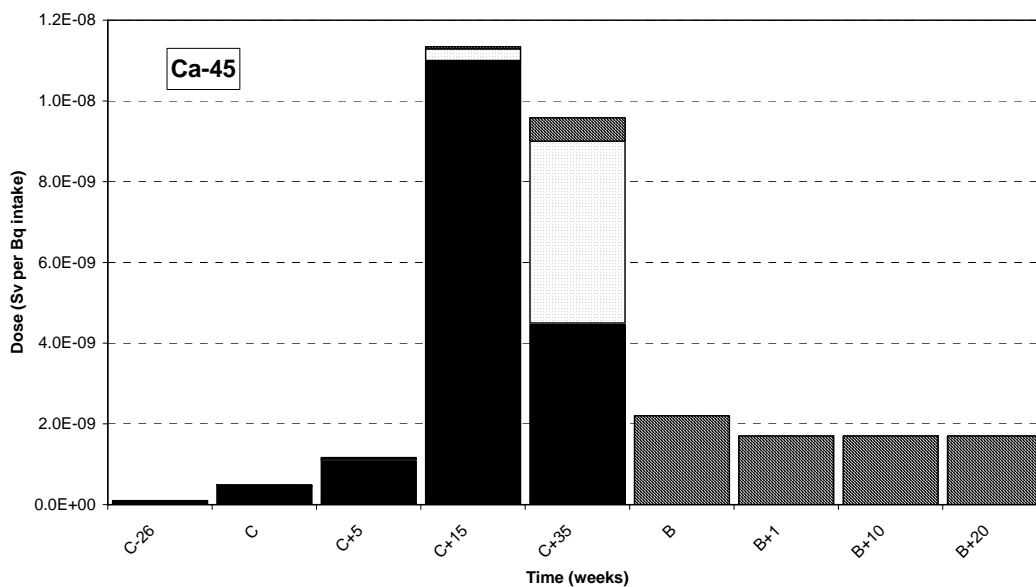


**Figure 2. Example of a non-recycling model, including transfer to breast and milk.**

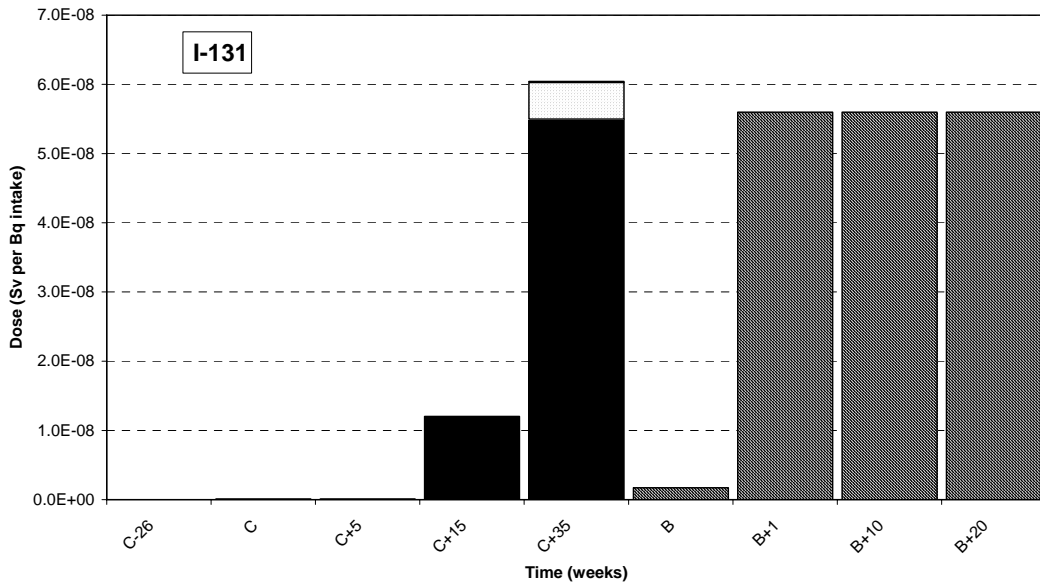




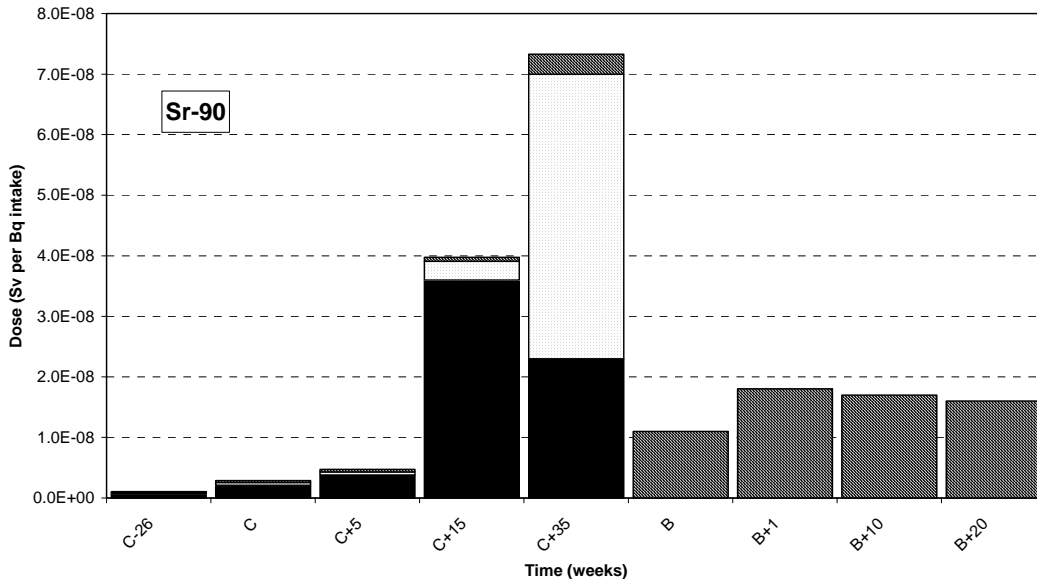
**Figure 3** Doses to the offspring following maternal ingestion of tritiated water, considering acute intakes by ingestion before and during pregnancy and during lactation (times relative to conception, C, and birth, B). Doses are committed effective dose, including contributions due to *in utero* exposure of the embryo and fetus (black), retention of activity in the child at birth (dotted) and transfer in breast-milk (dashed).



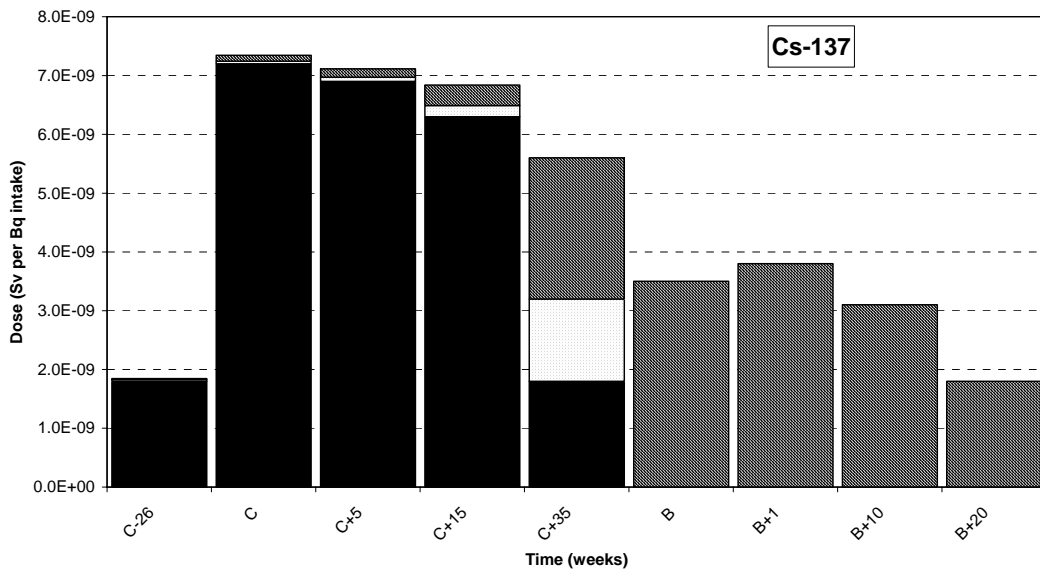
**Figure 4** Doses to the offspring following maternal ingestion of calcium-45, considering acute intakes by ingestion before and during pregnancy and during lactation (times relative to conception, C, and birth, B). Doses are committed effective dose, including contributions due to *in utero* exposure of the embryo and fetus (black), retention of activity in the child at birth (dotted) and transfer in breast-milk (dashed).



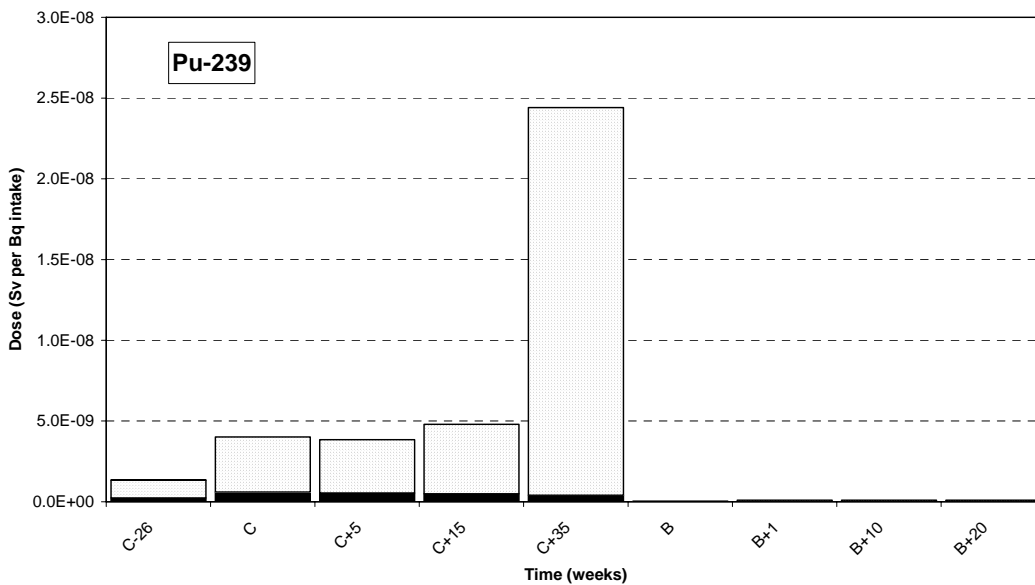
**Figure 5** Doses to the offspring following maternal ingestion of iodine-131, considering acute intakes by ingestion before and during pregnancy and during lactation (times relative to conception, C, and birth, B). Doses are committed effective dose, including contributions due to *in utero* exposure of the embryo and fetus (black), retention of activity in the child at birth (dotted) and transfer in breast-milk (dashed).



**Figure 6** Doses to the offspring following maternal ingestion of strontium-90, considering acute intakes by ingestion before and during pregnancy and during lactation (times relative to conception, C, and birth, B). Doses are committed effective dose, including contributions due to *in utero* exposure of the embryo and fetus (black), retention of activity in the child at birth (dotted) and transfer in breast-milk (dashed).



**Figure 7** Doses to the offspring following maternal ingestion of caesium-137, considering acute intakes by ingestion before and during pregnancy and during lactation (times relative to conception, C, and birth, B). Doses are committed effective dose, including contributions due to *in utero* exposure of the embryo and fetus (black), retention of activity in the child at birth (dotted) and transfer in breast-milk (dashed).



**Figure 8** Doses to the offspring following maternal ingestion of plutonium-239, considering acute intakes by ingestion before and during pregnancy and during lactation (times relative to conception, C, and birth, B). Doses are committed effective dose, including contributions due to *in utero* exposure of the embryo and fetus (black), retention of activity in the child at birth (dotted) and transfer in breast-milk (dashed).

## ANNEX A: MODELS FOR INDIVIDUAL ELEMENTS

This Annex provides a brief summary of the models describing transfer from mother to infant adopted for each element considered in this report. Further details are given by ICRP (in press).

### A1 Hydrogen

The *ICRP Publication 56* (ICRP, 1989) model for the adult was adapted to include transfer from both the short-term water (HTO) and long-term organically-bound (OBT) compartments to breast and milk. The transfer rate from the HTO compartment to breast was computed to be  $2.382 \times 10^{-2} \text{ d}^{-1}$  based on a water content of 700 ml in 800 ml milk and a total dietary intake of 2.1 litres per day (ICRP, 1975). The rate from the OBT compartment to breast was taken to be the same as that derived for carbon (section A2), ie  $4.621 \times 10^{-3} \text{ d}^{-1}$ , on the basis that it is transfer of organic constituents of milk which is being considered in each case.

### A2 Carbon

The *ICRP Publication 56* (ICRP, 1989) model for the adult was adapted to include transfer from the whole-body compartment to breast and milk. The transfer rate to breast was computed to be  $4.621 \times 10^{-3} \text{ d}^{-1}$  based on an estimated C content of milk of  $70 \text{ g l}^{-1}$  and dietary intake of  $210 \text{ g d}^{-1}$ .

### A3 Sodium

The *ICRP Publication 30* (ICRP, 1980) model for the adult was adapted to include an additional transfer compartment to receive Na returning to the circulation from tissues, normally considered to be excreted directly. This second transfer compartment was used to provide a transfer to breast and milk (see section 2.3, main text). The transfer rate to breast was computed to be  $1.8487 \times 10^{-1} \text{ d}^{-1}$  based on a dietary intake of  $2.4 \text{ g d}^{-1}$  and milk content of  $160 \text{ mg d}^{-1}$  in 800 ml milk (ICRP, 1975).

### A4 Magnesium

The *ICRP Publication 67* (ICRP, 1993) model for the adult was adapted to include an additional transfer compartment to receive Mg returning to the circulation from tissues, normally considered to be excreted directly. The two transfer compartments were assumed to contribute to transfer to milk in the same proportions as their contributions to excretion (see section 2.3, main text). Transfer rates to breast were thus computed to be  $1.553 \times 10^{-1} \text{ d}^{-1}$  and  $7.763 \times 10^{-1} \text{ d}^{-1}$  respectively, based on a dietary intake of  $200 \text{ mg d}^{-1}$  and a milk content of  $28 \text{ mg d}^{-1}$  in 800 ml milk (ICRP, 1975; WHO, 1989).

## **A5 Phosphorus**

The *ICRP Publication 30* (ICRP, 1979) model for the adult was adapted to include an additional transfer compartment to receive P returning to the circulation from tissues, normally considered to be excreted directly. The two transfer compartments were assumed to contribute to transfer to milk in the same proportions as their contributions to excretion (see section 2.3, main text). Transfer rates to breast were thus computed to be  $2.835 \times 10^{-2} \text{ d}^{-1}$  and  $1.890 \times 10^{-1} \text{ d}^{-1}$  respectively, based on a dietary intake of  $1.1 \text{ g d}^{-1}$  and a milk content of  $120 \text{ mg d}^{-1}$  in 800 ml milk (ICRP, 1975; WHO, 1989).

## **A6 Sulphur**

The *ICRP Publication 67* (ICRP, 1993) model for the adult was adapted to include an additional transfer compartment to receive S returning to the circulation from tissues, normally considered to be excreted directly. This second transfer compartment was used to provide a transfer to breast and milk (see section 2.3, main text). The transfer rate to breast was computed to be  $3.6538 \times 10^{-1} \text{ d}^{-1}$  based on a dietary intake of  $0.85 \text{ g d}^{-1}$  and a milk content of  $112 \text{ mg d}^{-1}$  in 800 ml milk (ICRP, 1975).

## **A7 Potassium**

The *ICRP Publication 30* (ICRP, 1980) model for the adult was adapted to include an additional transfer compartment to receive K returning to the circulation from tissues, normally considered to be excreted directly. This second transfer compartment was used to provide a transfer to breast and milk (see section 2.3, main text). In the ICRP (1980) model removal from blood is taken to be instantaneous, achieved by using an arbitrarily high total transfer rate from blood (eg.  $1000 \text{ d}^{-1}$ ). The transfer rate to breast was computed to be 20% of this total rate (eg.  $200 \text{ d}^{-1}$ ) based on a dietary intake of  $2 \text{ g d}^{-1}$  and a milk content of  $400 \text{ mg d}^{-1}$  in 800 ml milk (ICRP, 1975; WHO, 1989).

## **A8 Calcium**

The *ICRP Publication 71* (1995b) systemic model for the adult was adapted to include transfers from blood plasma to breast and milk (Smith *et al.*, 2003). The required rate for transfer of Ca to milk was determined using data for the distribution of Ca between compartments in adulthood (age 25 years), obtained as described by Fell *et al.* (2001). The transfer rate to breast was computed to be  $1.8 \text{ d}^{-1}$ , based on a dietary intake of  $0.9 \text{ g d}^{-1}$  Ca and a milk content of  $270 \text{ mg d}^{-1}$  in 800 ml milk (ICRP, 1975; King *et al.*, 1992).

In calculations of doses resulting from intakes of isotopes of Ca during lactation, the standard adult  $f_1$  value of 0.3 was used (ICRP, 1995b). For intakes during pregnancy, increased absorption was taken into account, as in *ICRP Publication 88* (ICRP, 2001)

and Part 1 of this report (Phipps *et al.*, 2001). Thus, it was assumed that for intakes by ingestion  $f_1$  increased from 0.3 at conception to 0.4 at the end of the first trimester, from 0.4 to 0.6 at the end of the second trimester and remained at 0.6 throughout the third trimester (Fell *et al.*, 2001; ICRP, 2001). For intakes by inhalation,  $f_1$  values were assumed to increase in the same relative manner as those for ingestion (ICRP, 2001, Phipps *et al.*, 2001).

## **A9 Iron**

The *ICRP Publication 69* (ICRP, 1995a) systemic model was adapted to include transfers from blood plasma to breast and milk. Initial conditions for the body iron content were calculated by running the adult model to equilibrium, assuming dietary intake of  $10 \text{ mg d}^{-1}$  (ICRP, 1975). The transfer rate to breast was computed to be  $5.5 \times 10^{-2} \text{ d}^{-1}$ , based on a dietary intake of  $10 \text{ mg d}^{-1}$  Fe and a milk content of  $0.4 \text{ mg d}^{-1}$  in 800 ml milk (ICRP, 1975).

In calculations of doses resulting from intakes of isotopes of Fe during pregnancy, increased absorption was taken into account, as in *ICRP Publication 88* (ICRP, 2001) and Part 1 of this report (Phipps *et al.*, 2001). Thus, it was assumed that for intakes by ingestion  $f_1$  remained at the normal value of 0.1 during the first trimester, increased to 0.3 by the end of the second trimester, and to 0.4 at the end of the third trimester. A value of 0.2 was applied to intakes during lactation. For intakes by inhalation,  $f_1$  was assumed to increase in the same relative manner as those for ingestion (ICRP, 2001; Phipps *et al.*, 2001).

## **A10 Cobalt**

The *ICRP Publication 67* (ICRP, 1993) model for the adult was adapted to include an additional transfer compartment to receive Co returning to the circulation from tissues, normally considered to be excreted directly. The two transfer compartments were assumed to contribute to transfer to milk in the same proportions as their contributions to excretion (see section 2.3, main text). Transfer rates to breast were thus computed to be  $2.772 \times 10^{-1} \text{ d}^{-1}$  and  $5.544 \times 10^{-1} \text{ d}^{-1}$  respectively, based on a dietary intake of  $10 \text{ } \mu\text{g d}^{-1}$  Co and a milk content of  $0.4 \text{ } \mu\text{g d}^{-1}$  in 800 ml milk (Ysart *et al.*, 1999; Wappelhorst *et al.*, 2002).

## **A11 Zinc**

The *ICRP Publication 67* (ICRP, 1993) model for the adult was adapted to include an additional transfer compartment to receive Zn returning to the circulation from tissues, normally considered to be excreted directly. This second transfer compartment was used to provide a transfer to breast and milk (see section 2.3, main text). The transfer

rate to breast was computed to be  $0.444 \text{ d}^{-1}$  based on a dietary intake of  $10 \text{ mg d}^{-1}$  Zn and a milk content of  $0.8 \text{ mg d}^{-1}$  in 800 ml milk (ICRP, 1975; Ellen *et al.*, 1990; Minoia *et al.*, 1994; WHO, 1989; Casey *et al.*, 1985; Wuenschmann *et al.*, 2004).

#### **A12 Strontium**

The *ICRP Publication 67* (ICRP, 1993) model for the adult was adapted to include transfers from blood plasma to breast and milk. On the basis of quantitative comparisons of the relative transfer of Ca and Sr across the placenta (Bryant and Loutit, 1961), the rate for transfer of Sr from plasma to breast was taken to be 0.4 times the rate for Ca, that is  $0.72 \text{ d}^{-1}$ . For a dietary intake of  $1.5 \text{ mg d}^{-1}$  Sr, the model predicts a milk content of  $135 \mu\text{g d}^{-1}$  which is reasonably consistent with reported values of  $110 \mu\text{g l}^{-1}$  (Perrone *et al.*, 1993, 1994).

In calculations of doses from intakes of isotopes of Sr during lactation, the standard adult  $f_1$  value of 0.3 was used (ICRP, 1993). For intakes during pregnancy, increased absorption was taken into account, as in *ICRP Publication 88* (ICRP, 2001) and Part 1 of this report (Phipps *et al.*, 2001). Thus, as for Ca, it was assumed that for intakes by ingestion  $f_1$  increased from 0.3 at conception to 0.4 at the end of the first trimester, from 0.4 to 0.6 at the end of the second trimester and remained at 0.6 throughout the third trimester (Fell *et al.*, 2001; ICRP 2001). For intakes by inhalation,  $f_1$  values were assumed to increase in the same relative manner as those for ingestion (ICRP, 2001).

#### **A13 Technetium**

Since the only data available are for the short-lived isotope,  $^{99\text{m}}\text{Tc}$  (half-life 6 hours), it is not possible to develop a model for predicting the time course of transfer to milk that can be confidently applied to transfer of the long-lived isotope,  $^{99}\text{Tc}$ . Consideration is therefore confined to intakes of  $^{99\text{m}}\text{Tc}$ . Taking account of the review of Mountford and Coakley (1989) and the data presented by Rubow *et al.*, (1994) total transfer of Tc to milk was taken to be 10% of Tc reaching blood following intakes during lactation, and zero for intakes at other times.

#### **A14 Ruthenium**

The *ICRP Publication 56* (ICRP, 1989) model for the adult was adapted to include an additional transfer compartment to receive Ru returning to the circulation from tissues, normally considered to be excreted directly (see section 2.3). The transfer rates from the two transfer compartments to breast were set at  $2.128 \cdot 10^{-2} \text{ d}^{-1}$  and  $0.1428 \text{ d}^{-1}$ , respectively, in order to yield a total transfer of 5% of absorbed ruthenium to milk for the case of acute intake by the mother 1 week after birth. This is in broad agreement

with the findings of Coughtrey and Thorne (1983) and represents a default assumption applied to a number of elements with low transfer to milk (see section 2.1).

#### **A15 Iodine**

Berkovski (1999a,b) has developed a comprehensive representation of iodine biokinetics with the primary objective of modelling transfer to the fetus and estimating *in utero* doses. Changes from the ICRP (1989) model were considered necessary for this application to provide adequate estimates of doses to the embryo from iodine in non-thyroidal tissues. The model developed by Berkovski (1999a,b) was used in Part 1 of this report and in *ICRP Publication 88* (ICRP, 2001). The model is used here to consider the postnatal transfer of I isotopes to breast milk. The rate specified for I transfer from the maternal iodide pool to breast is taken from Berkovski (2002), but the transfer coefficient from breast to milk is taken to be  $12 \text{ d}^{-1}$  instead of Berkovski's assumption of  $2 \text{ d}^{-1}$ , for consistency with other models in this report. The model predicts: a transfer coefficient for  $^{131}\text{I}$  of  $0.38 \text{ d l}^{-1}$  (ie.  $\text{Bq litre}^{-1}$  in milk divided by  $\text{Bq d}^{-1}$  in diet); the time after intake when iodine concentration reaches a maximum ( $T_{\text{max}}$ ) of about 9 hours; and an effective half-time for removal of iodine ( $T_{\text{eff}}$ ) of about 12 hours. These predictions are in good agreement with the data reviewed by Simon *et al.* (2002) and other information on transfer factors (Wuenschmann *et al.*, 2004).

#### **A16 Caesium**

The *ICRP Publication 56* (ICRP, 1989) model for the adult was adapted to include an additional transfer compartment to receive Cs returning to the circulation from tissues, normally considered to be excreted directly. This second transfer compartment was used to provide a transfer to breast and milk (see section 2.3, main text). The transfer rate to breast was computed to be  $6.2 \times 10^{-1} \text{ d}^{-1}$  based on a transfer coefficient of  $0.30 \text{ d l}^{-1}$ , as obtained from the studies of Gall *et al.* (1991), Risici *et al.* (1992) and Wuenschmann *et al.* (2004).

Consistent with the assumptions made in *ICRP Publication 88* (2001), half-times of retention of Cs in the adult female were assumed to be 2 days (0.1) and 75 days (0.9) throughout lactation and prior to conception and 2 days (0.1) and 50 days (0.9) during pregnancy.

#### **A17 Lead**

The *ICRP Publication 67* (ICRP, 1993) model was adapted to include transfers from blood plasma to breast and milk. The transfer rate from this compartment to breast was set at  $1.78 \text{ d}^{-1}$ , in order to yield a total transfer of 3 % of absorbed lead to milk for the case of acute intake by the mother 1 week after birth. This is reasonably consistent



with the results of Wuenschmann *et al.* (2004) and other human studies (Ong *et al.*, 1985; Nashashibi *et al.*, 1999; Li *et al.*, 2000).

### **A18 Polonium**

The Leggett and Eckerman (2001) model was adapted to include transfers from blood plasma (plasma 1) to breast and milk. The transfer rate from this compartment to breast was set at  $0.32 \text{ d}^{-1}$ , in order to yield a maximum transfer of 5 % of absorbed polonium to milk, the default assumption applied to a number of elements with low transfer to milk (see section 2.1). For chronic intakes of  $^{210}\text{Po}$  throughout lactation, the model gives a transfer coefficient of  $0.024 \text{ d l}^{-1}$ , consistent with a reported value of  $0.029 \text{ d l}^{-1}$  for cows (Watters and McInroy, 1969).

### **A19 Radium**

The *ICRP Publication 67* (ICRP, 1993) model for the adult was adapted to include transfers from blood plasma to breast and milk. The transfer rate from this compartment to breast was set at  $0.72 \text{ d}^{-1}$ , in order to yield a total transfer of 3 % of absorbed polonium to milk for the case of acute intake by the mother 1 week after birth, consistent with the data of Wuenschmann *et al.* (2004).

In calculations of doses from maternal ingestion of isotopes of Ra during lactation, the standard adult  $f_1$  value of 0.2 was used (ICRP, 1993). For intakes during pregnancy, increased absorption was taken into account, as in *ICRP Publication 88* (ICRP, 2001) and Part 1 of this report (Phipps *et al.*, 2001). Thus, it was assumed that  $f_1$  increases parallel those of Ca and Sr, from 0.2 at conception to 0.4 by the third trimester (Fell *et al.*, 2001; ICRP 2001). For intakes by inhalation  $f_1$  is assumed to increase in the same relative manner as those for ingestion (ICRP, 2001; Phipps *et al.*, 2001).

### **A20 Thorium**

The *ICRP Publication 69* (ICRP, 1995a) model for the adult was adapted to include transfers from blood plasma to breast and milk. The transfer rate from this compartment to breast was set at  $9.7 \times 10^{-2} \text{ d}^{-1}$ , in order to yield a total transfer of 5 % of absorbed thorium to milk for the case of acute intake by the mother 1 week after birth. This default assumption, applied to a number of elements with low transfer to milk (see section 2.1), is consistent with the available information on transfer of plutonium, americium and curium which are chemically similar to thorium.

### **A21 Uranium**

The adult model was adapted to include transfers from blood plasma to breast and milk. The transfer rate from this compartment to breast was set at  $1.03 \text{ d}^{-1}$ , in order to

yield a total transfer of 5 % of absorbed lead to milk for the case of acute intake by the mother 1 week after birth. This default assumption, applied to a number of elements with low transfer to milk (see section 2.1), is reasonably consistent with the single reported value for U concentration in human milk (Wappelhorst *et al.*, 2002).

## **A22 Plutonium**

The *ICRP Publication 67* (ICRP, 1993) model for the adult was adapted to include transfers from blood plasma to breast and milk. Transfer was calculated on the basis of a milk : blood plasma concentration ratio of 0.1 (see section 2.2, main text) based on data for sheep and cows (McClellan *et al.*, 1962; Stanley *et al.*, 1974), giving a rate constant from blood to breast of  $0.033 \text{ d}^{-1}$ . All other transfer constants were taken to be the same as in the adult model.

## **A23 Americium**

The *ICRP Publication 67* (ICRP, 1993) model for the adult was adapted to include transfers from blood plasma to breast and milk. Transfer was calculated on the basis of a milk : blood plasma concentration ratio of 3 (see section 2.2, main text) based on data for sheep (McClellan *et al.*, 1962), giving a rate constant from blood to breast of  $0.99 \text{ d}^{-1}$ . All other transfer constants were taken to be the same as in the adult model.

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## ANNEX B: DOSE COEFFICIENTS

Dose coefficients (Sv/Bq) for the offspring from mothers' milk  
following intake of H-3 (T½ = 12.3 y) by the mother

Scenario*	Testes	Ovaries	Brain	R.B.M.	Thyroid	Bone sur	Liver	Kidneys	Spleen	Remainder	Effective
Inhalation of tritiated water vapour											
-130	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-26	1.8E-16	1.8E-16	1.8E-16	1.8E-16	1.8E-16	1.8E-16	1.8E-16	1.8E-16	1.8E-16	1.8E-16	1.8E-16
conception	4.4E-15	4.4E-15	4.4E-15	4.4E-15	4.4E-15	4.4E-15	4.4E-15	4.4E-15	4.4E-15	4.4E-15	4.4E-15
+5	8.2E-15	8.2E-15	8.2E-15	8.2E-15	8.2E-15	8.2E-15	8.2E-15	8.2E-15	8.2E-15	8.2E-15	8.2E-15
+10	1.5E-14	1.5E-14	1.5E-14	1.5E-14	1.5E-14	1.5E-14	1.5E-14	1.5E-14	1.5E-14	1.5E-14	1.5E-14
+15	2.8E-14	2.8E-14	2.8E-14	2.8E-14	2.8E-14	2.8E-14	2.8E-14	2.8E-14	2.8E-14	2.8E-14	2.8E-14
+25	1.2E-13	1.2E-13	1.2E-13	1.2E-13	1.2E-13	1.2E-13	1.2E-13	1.2E-13	1.2E-13	1.2E-13	1.2E-13
+35	4.3E-12	4.3E-12	4.3E-12	4.3E-12	4.3E-12	4.3E-12	4.3E-12	4.3E-12	4.3E-12	4.3E-12	4.3E-12
birth	1.8E-11	1.8E-11	1.8E-11	1.8E-11	1.8E-11	1.8E-11	1.8E-11	1.8E-11	1.8E-11	1.8E-11	1.8E-11
birth+1	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11
birth+5	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11
birth+10	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11
birth+15	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11
birth+20	2.0E-11	2.0E-11	2.0E-11	2.0E-11	2.0E-11	2.0E-11	2.0E-11	2.0E-11	2.0E-11	2.0E-11	2.0E-11
-260	1.4E-16	1.4E-16	1.4E-16	1.4E-16	1.4E-16	1.4E-16	1.4E-16	1.4E-16	1.4E-16	1.4E-16	1.4E-16
-52	6.9E-16	6.9E-16	6.9E-16	6.9E-16	6.9E-16	6.9E-16	6.9E-16	6.9E-16	6.9E-16	6.9E-16	6.9E-16
conception	1.0E-12	1.0E-12	1.0E-12	1.0E-12	1.0E-12	1.0E-12	1.0E-12	1.0E-12	1.0E-12	1.0E-12	1.0E-12
lactation	2.0E-11	2.0E-11	2.0E-11	2.0E-11	2.0E-11	2.0E-11	2.0E-11	2.0E-11	2.0E-11	2.0E-11	2.0E-11
Inhalation of elemental hydrogen vapour											
-130	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-26	1.8E-20	1.8E-20	1.8E-20	1.8E-20	1.8E-20	1.8E-20	1.8E-20	1.8E-20	1.8E-20	1.8E-20	1.8E-20
conception	4.4E-19	4.4E-19	4.4E-19	4.4E-19	4.4E-19	4.4E-19	4.4E-19	4.4E-19	4.4E-19	4.4E-19	4.4E-19
+5	8.2E-19	8.2E-19	8.2E-19	8.2E-19	8.2E-19	8.2E-19	8.2E-19	8.2E-19	8.2E-19	8.2E-19	8.2E-19
+10	1.5E-18	1.5E-18	1.5E-18	1.5E-18	1.5E-18	1.5E-18	1.5E-18	1.5E-18	1.5E-18	1.5E-18	1.5E-18
+15	2.8E-18	2.8E-18	2.8E-18	2.8E-18	2.8E-18	2.8E-18	2.8E-18	2.8E-18	2.8E-18	2.8E-18	2.8E-18
+25	1.2E-17	1.2E-17	1.2E-17	1.2E-17	1.2E-17	1.2E-17	1.2E-17	1.2E-17	1.2E-17	1.2E-17	1.2E-17
+35	4.3E-16	4.3E-16	4.3E-16	4.3E-16	4.3E-16	4.3E-16	4.3E-16	4.3E-16	4.3E-16	4.3E-16	4.3E-16
birth	1.8E-15	1.8E-15	1.8E-15	1.8E-15	1.8E-15	1.8E-15	1.8E-15	1.8E-15	1.8E-15	1.8E-15	1.8E-15
birth+1	2.2E-15	2.2E-15	2.2E-15	2.2E-15	2.2E-15	2.2E-15	2.2E-15	2.2E-15	2.2E-15	2.2E-15	2.2E-15
birth+5	2.2E-15	2.2E-15	2.2E-15	2.2E-15	2.2E-15	2.2E-15	2.2E-15	2.2E-15	2.2E-15	2.2E-15	2.2E-15
birth+10	2.2E-15	2.2E-15	2.2E-15	2.2E-15	2.2E-15	2.2E-15	2.2E-15	2.2E-15	2.2E-15	2.2E-15	2.2E-15
birth+15	2.2E-15	2.2E-15	2.2E-15	2.2E-15	2.2E-15	2.2E-15	2.2E-15	2.2E-15	2.2E-15	2.2E-15	2.2E-15
birth+20	2.0E-15	2.0E-15	2.0E-15	2.0E-15	2.0E-15	2.0E-15	2.0E-15	2.0E-15	2.0E-15	2.0E-15	2.0E-15
-260	1.4E-20	1.4E-20	1.4E-20	1.4E-20	1.4E-20	1.4E-20	1.4E-20	1.4E-20	1.4E-20	1.4E-20	1.4E-20
-52	6.9E-20	6.9E-20	6.9E-20	6.9E-20	6.9E-20	6.9E-20	6.9E-20	6.9E-20	6.9E-20	6.9E-20	6.9E-20
conception	1.0E-16	1.0E-16	1.0E-16	1.0E-16	1.0E-16	1.0E-16	1.0E-16	1.0E-16	1.0E-16	1.0E-16	1.0E-16
lactation	2.0E-15	2.0E-15	2.0E-15	2.0E-15	2.0E-15	2.0E-15	2.0E-15	2.0E-15	2.0E-15	2.0E-15	2.0E-15
Inhalation of tritiated methane											
-130	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-26	1.8E-18	1.8E-18	1.8E-18	1.8E-18	1.8E-18	1.8E-18	1.8E-18	1.8E-18	1.8E-18	1.8E-18	1.8E-18
conception	4.4E-17	4.4E-17	4.4E-17	4.4E-17	4.4E-17	4.4E-17	4.4E-17	4.4E-17	4.4E-17	4.4E-17	4.4E-17
+5	8.2E-17	8.2E-17	8.2E-17	8.2E-17	8.2E-17	8.2E-17	8.2E-17	8.2E-17	8.2E-17	8.2E-17	8.2E-17
+10	1.5E-16	1.5E-16	1.5E-16	1.5E-16	1.5E-16	1.5E-16	1.5E-16	1.5E-16	1.5E-16	1.5E-16	1.5E-16
+15	2.8E-16	2.8E-16	2.8E-16	2.8E-16	2.8E-16	2.8E-16	2.8E-16	2.8E-16	2.8E-16	2.8E-16	2.8E-16
+25	1.2E-15	1.2E-15	1.2E-15	1.2E-15	1.2E-15	1.2E-15	1.2E-15	1.2E-15	1.2E-15	1.2E-15	1.2E-15
+35	4.3E-14	4.3E-14	4.3E-14	4.3E-14	4.3E-14	4.3E-14	4.3E-14	4.3E-14	4.3E-14	4.3E-14	4.3E-14
birth	1.8E-13	1.8E-13	1.8E-13	1.8E-13	1.8E-13	1.8E-13	1.8E-13	1.8E-13	1.8E-13	1.8E-13	1.8E-13
birth+1	2.2E-13	2.2E-13	2.2E-13	2.2E-13	2.2E-13	2.2E-13	2.2E-13	2.2E-13	2.2E-13	2.2E-13	2.2E-13
birth+5	2.2E-13	2.2E-13	2.2E-13	2.2E-13	2.2E-13	2.2E-13	2.2E-13	2.2E-13	2.2E-13	2.2E-13	2.2E-13
birth+10	2.2E-13	2.2E-13	2.2E-13	2.2E-13	2.2E-13	2.2E-13	2.2E-13	2.2E-13	2.2E-13	2.2E-13	2.2E-13
birth+15	2.2E-13	2.2E-13	2.2E-13	2.2E-13	2.2E-13	2.2E-13	2.2E-13	2.2E-13	2.2E-13	2.2E-13	2.2E-13
birth+20	2.0E-13	2.0E-13	2.0E-13	2.0E-13	2.0E-13	2.0E-13	2.0E-13	2.0E-13	2.0E-13	2.0E-13	2.0E-13
-260	1.4E-18	1.4E-18	1.4E-18	1.4E-18	1.4E-18	1.4E-18	1.4E-18	1.4E-18	1.4E-18	1.4E-18	1.4E-18
-52	6.9E-18	6.9E-18	6.9E-18	6.9E-18	6.9E-18	6.9E-18	6.9E-18	6.9E-18	6.9E-18	6.9E-18	6.9E-18
conception	1.0E-14	1.0E-14	1.0E-14	1.0E-14	1.0E-14	1.0E-14	1.0E-14	1.0E-14	1.0E-14	1.0E-14	1.0E-14
lactation	2.0E-13	2.0E-13	2.0E-13	2.0E-13	2.0E-13	2.0E-13	2.0E-13	2.0E-13	2.0E-13	2.0E-13	2.0E-13

Dose coefficients (Sv/Bq) for the offspring from mothers' milk  
following intake of H-3 (T½ = 12.3 y) by the mother (continued)

Scenario*	Testes	Ovaries	Brain	R.B.M.	Thyroid	Bone sur	Liver	Kidneys	Spleen	Remainder	Effective
Inhalation of organically bound tritium											
-130	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-26	5.2E-15	5.2E-15	5.2E-15	5.2E-15	5.2E-15	5.2E-15	5.2E-15	5.2E-15	5.2E-15	5.2E-15	5.7E-15
conception	1.3E-13	1.3E-13	1.3E-13	1.3E-13	1.3E-13	1.3E-13	1.3E-13	1.3E-13	1.3E-13	1.3E-13	1.4E-13
+5	2.3E-13	2.3E-13	2.3E-13	2.3E-13	2.3E-13	2.3E-13	2.3E-13	2.3E-13	2.3E-13	2.3E-13	2.5E-13
+10	4.3E-13	4.3E-13	4.3E-13	4.3E-13	4.3E-13	4.3E-13	4.3E-13	4.3E-13	4.3E-13	4.3E-13	4.7E-13
+15	7.9E-13	7.9E-13	7.9E-13	7.9E-13	7.9E-13	7.9E-13	7.9E-13	7.9E-13	7.9E-13	7.9E-13	8.6E-13
+25	2.7E-12	2.7E-12	2.7E-12	2.7E-12	2.7E-12	2.7E-12	2.7E-12	2.7E-12	2.7E-12	2.7E-12	3.0E-12
+35	1.3E-11	1.3E-11	1.3E-11	1.3E-11	1.3E-11	1.3E-11	1.3E-11	1.3E-11	1.3E-11	1.3E-11	1.4E-11
birth	2.8E-11	2.8E-11	2.8E-11	2.8E-11	2.8E-11	2.8E-11	2.8E-11	2.8E-11	2.8E-11	2.8E-11	3.1E-11
birth+1	3.3E-11	3.3E-11	3.3E-11	3.3E-11	3.3E-11	3.3E-11	3.3E-11	3.3E-11	3.3E-11	3.3E-11	3.6E-11
birth+5	3.2E-11	3.2E-11	3.2E-11	3.2E-11	3.2E-11	3.2E-11	3.2E-11	3.2E-11	3.2E-11	3.2E-11	3.5E-11
birth+10	3.1E-11	3.1E-11	3.1E-11	3.1E-11	3.1E-11	3.1E-11	3.1E-11	3.1E-11	3.1E-11	3.1E-11	3.4E-11
birth+15	3.0E-11	3.0E-11	3.0E-11	3.0E-11	3.0E-11	3.0E-11	3.0E-11	3.0E-11	3.0E-11	3.0E-11	3.2E-11
birth+20	2.5E-11	2.5E-11	2.5E-11	2.5E-11	2.5E-11	2.5E-11	2.5E-11	2.5E-11	2.5E-11	2.5E-11	2.8E-11
-260	4.0E-15	4.0E-15	4.0E-15	4.0E-15	4.0E-15	4.0E-15	4.0E-15	4.0E-15	4.0E-15	4.0E-15	4.3E-15
-52	2.0E-14	2.0E-14	2.0E-14	2.0E-14	2.0E-14	2.0E-14	2.0E-14	2.0E-14	2.0E-14	2.0E-14	2.2E-14
conception	3.6E-12	3.6E-12	3.6E-12	3.6E-12	3.6E-12	3.6E-12	3.6E-12	3.6E-12	3.6E-12	3.6E-12	4.0E-12
lactation	2.8E-11	2.8E-11	2.8E-11	2.8E-11	2.8E-11	2.8E-11	2.8E-11	2.8E-11	2.8E-11	2.8E-11	3.0E-11
Ingestion of tritiated water: f1=1.0											
-130	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-26	1.8E-16	1.8E-16	1.8E-16	1.8E-16	1.8E-16	1.8E-16	1.8E-16	1.8E-16	1.8E-16	1.8E-16	1.8E-16
conception	4.4E-15	4.4E-15	4.4E-15	4.4E-15	4.4E-15	4.4E-15	4.4E-15	4.4E-15	4.4E-15	4.4E-15	4.4E-15
+5	8.2E-15	8.2E-15	8.2E-15	8.2E-15	8.2E-15	8.2E-15	8.2E-15	8.2E-15	8.2E-15	8.2E-15	8.2E-15
+10	1.5E-14	1.5E-14	1.5E-14	1.5E-14	1.5E-14	1.5E-14	1.5E-14	1.5E-14	1.5E-14	1.5E-14	1.5E-14
+15	2.8E-14	2.8E-14	2.8E-14	2.8E-14	2.8E-14	2.8E-14	2.8E-14	2.8E-14	2.8E-14	2.8E-14	2.8E-14
+25	1.2E-13	1.2E-13	1.2E-13	1.2E-13	1.2E-13	1.2E-13	1.2E-13	1.2E-13	1.2E-13	1.2E-13	1.2E-13
+35	4.3E-12	4.3E-12	4.3E-12	4.3E-12	4.3E-12	4.3E-12	4.3E-12	4.3E-12	4.3E-12	4.3E-12	4.3E-12
birth	1.8E-11	1.8E-11	1.8E-11	1.8E-11	1.8E-11	1.8E-11	1.8E-11	1.8E-11	1.8E-11	1.8E-11	1.8E-11
birth+1	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11
birth+5	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11
birth+10	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11
birth+15	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11
birth+20	2.0E-11	2.0E-11	2.0E-11	2.0E-11	2.0E-11	2.0E-11	2.0E-11	2.0E-11	2.0E-11	2.0E-11	2.0E-11
-260	1.4E-16	1.4E-16	1.4E-16	1.4E-16	1.4E-16	1.4E-16	1.4E-16	1.4E-16	1.4E-16	1.4E-16	1.4E-16
-52	6.9E-16	6.9E-16	6.9E-16	6.9E-16	6.9E-16	6.9E-16	6.9E-16	6.9E-16	6.9E-16	6.9E-16	6.9E-16
conception	1.0E-12	1.0E-12	1.0E-12	1.0E-12	1.0E-12	1.0E-12	1.0E-12	1.0E-12	1.0E-12	1.0E-12	1.0E-12
lactation	2.0E-11	2.0E-11	2.0E-11	2.0E-11	2.0E-11	2.0E-11	2.0E-11	2.0E-11	2.0E-11	2.0E-11	2.0E-11
Ingestion of organically bound tritium: f1=1.0											
-130	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-26	5.1E-15	5.1E-15	5.1E-15	5.1E-15	5.1E-15	5.1E-15	5.1E-15	5.1E-15	5.1E-15	5.1E-15	5.6E-15
conception	1.3E-13	1.3E-13	1.3E-13	1.3E-13	1.3E-13	1.3E-13	1.3E-13	1.3E-13	1.3E-13	1.3E-13	1.4E-13
+5	2.3E-13	2.3E-13	2.3E-13	2.3E-13	2.3E-13	2.3E-13	2.3E-13	2.3E-13	2.3E-13	2.3E-13	2.5E-13
+10	4.3E-13	4.3E-13	4.3E-13	4.3E-13	4.3E-13	4.3E-13	4.3E-13	4.3E-13	4.3E-13	4.3E-13	4.7E-13
+15	7.9E-13	7.9E-13	7.9E-13	7.9E-13	7.9E-13	7.9E-13	7.9E-13	7.9E-13	7.9E-13	7.9E-13	8.6E-13
+25	2.7E-12	2.7E-12	2.7E-12	2.7E-12	2.7E-12	2.7E-12	2.7E-12	2.7E-12	2.7E-12	2.7E-12	2.9E-12
+35	1.3E-11	1.3E-11	1.3E-11	1.3E-11	1.3E-11	1.3E-11	1.3E-11	1.3E-11	1.3E-11	1.3E-11	1.4E-11
birth	2.8E-11	2.8E-11	2.8E-11	2.8E-11	2.8E-11	2.8E-11	2.8E-11	2.8E-11	2.8E-11	2.8E-11	3.1E-11
birth+1	3.2E-11	3.2E-11	3.2E-11	3.2E-11	3.2E-11	3.2E-11	3.2E-11	3.2E-11	3.2E-11	3.2E-11	3.5E-11
birth+5	3.2E-11	3.2E-11	3.2E-11	3.2E-11	3.2E-11	3.2E-11	3.2E-11	3.2E-11	3.2E-11	3.2E-11	3.5E-11
birth+10	3.1E-11	3.1E-11	3.1E-11	3.1E-11	3.1E-11	3.1E-11	3.1E-11	3.1E-11	3.1E-11	3.1E-11	3.4E-11
birth+15	2.9E-11	2.9E-11	2.9E-11	2.9E-11	2.9E-11	2.9E-11	2.9E-11	2.9E-11	2.9E-11	2.9E-11	3.2E-11
birth+20	2.5E-11	2.5E-11	2.5E-11	2.5E-11	2.5E-11	2.5E-11	2.5E-11	2.5E-11	2.5E-11	2.5E-11	2.7E-11
-260	3.9E-15	3.9E-15	3.9E-15	3.9E-15	3.9E-15	3.9E-15	3.9E-15	3.9E-15	3.9E-15	3.9E-15	4.3E-15
-52	2.0E-14	2.0E-14	2.0E-14	2.0E-14	2.0E-14	2.0E-14	2.0E-14	2.0E-14	2.0E-14	2.0E-14	2.1E-14
conception	3.6E-12	3.6E-12	3.6E-12	3.6E-12	3.6E-12	3.6E-12	3.6E-12	3.6E-12	3.6E-12	3.6E-12	3.9E-12
lactation	2.7E-11	2.7E-11	2.7E-11	2.7E-11	2.7E-11	2.7E-11	2.7E-11	2.7E-11	2.7E-11	2.7E-11	3.0E-11

Dose coefficients (Sv/Bq) for the offspring from mothers' milk  
following intake of C-14 (T½ = 5.73E+03 y) by the mother

Scenario*	Testes	Ovaries	Brain	R.B.M.	Thyroid	Bone sur	Liver	Kidneys	Spleen	Remainder	Effective
Inhalation of carbon vapour											
-130	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-26	1.3E-13	1.3E-13	1.3E-13	1.3E-13	1.3E-13	1.3E-13	1.3E-13	1.3E-13	1.3E-13	1.3E-13	1.4E-13
conception	3.1E-12	3.1E-12	3.1E-12	3.1E-12	3.1E-12	3.1E-12	3.1E-12	3.1E-12	3.1E-12	3.1E-12	3.4E-12
+5	5.7E-12	5.7E-12	5.7E-12	5.7E-12	5.7E-12	5.7E-12	5.7E-12	5.7E-12	5.7E-12	5.7E-12	6.2E-12
+10	1.1E-11	1.1E-11	1.1E-11	1.1E-11	1.1E-11	1.1E-11	1.1E-11	1.1E-11	1.1E-11	1.1E-11	1.1E-11
+15	1.9E-11	1.9E-11	1.9E-11	1.9E-11	1.9E-11	1.9E-11	1.9E-11	1.9E-11	1.9E-11	1.9E-11	2.1E-11
+25	6.5E-11	6.5E-11	6.5E-11	6.5E-11	6.5E-11	6.5E-11	6.5E-11	6.5E-11	6.5E-11	6.5E-11	7.0E-11
+35	2.2E-10	2.2E-10	2.2E-10	2.2E-10	2.2E-10	2.2E-10	2.2E-10	2.2E-10	2.2E-10	2.2E-10	2.3E-10
birth	3.1E-10	3.1E-10	3.1E-10	3.1E-10	3.1E-10	3.1E-10	3.1E-10	3.1E-10	3.1E-10	3.1E-10	3.4E-10
birth+1	3.3E-10	3.3E-10	3.3E-10	3.3E-10	3.3E-10	3.3E-10	3.3E-10	3.3E-10	3.3E-10	3.3E-10	3.6E-10
birth+5	3.2E-10	3.2E-10	3.2E-10	3.2E-10	3.2E-10	3.2E-10	3.2E-10	3.2E-10	3.2E-10	3.2E-10	3.4E-10
birth+10	3.0E-10	3.0E-10	3.0E-10	3.0E-10	3.0E-10	3.0E-10	3.0E-10	3.0E-10	3.0E-10	3.0E-10	3.2E-10
birth+15	2.5E-10	2.5E-10	2.5E-10	2.5E-10	2.5E-10	2.5E-10	2.5E-10	2.5E-10	2.5E-10	2.5E-10	2.7E-10
birth+20	1.8E-10	1.8E-10	1.8E-10	1.8E-10	1.8E-10	1.8E-10	1.8E-10	1.8E-10	1.8E-10	1.8E-10	1.9E-10
-260	9.9E-14	9.9E-14	9.9E-14	9.9E-14	9.9E-14	9.9E-14	9.9E-14	9.9E-14	9.9E-14	9.9E-14	1.1E-13
-52	4.9E-13	4.9E-13	4.9E-13	4.9E-13	4.9E-13	4.9E-13	4.9E-13	4.9E-13	4.9E-13	4.9E-13	5.3E-13
conception	6.7E-11	6.7E-11	6.7E-11	6.7E-11	6.7E-11	6.7E-11	6.7E-11	6.7E-11	6.7E-11	6.7E-11	7.3E-11
lactation	2.4E-10	2.4E-10	2.4E-10	2.4E-10	2.4E-10	2.4E-10	2.4E-10	2.4E-10	2.4E-10	2.4E-10	2.6E-10
Ingestion of labelled organic compounds: f1=1.0											
-130	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-26	1.3E-13	1.3E-13	1.3E-13	1.3E-13	1.3E-13	1.3E-13	1.3E-13	1.3E-13	1.3E-13	1.3E-13	1.4E-13
conception	3.1E-12	3.1E-12	3.1E-12	3.1E-12	3.1E-12	3.1E-12	3.1E-12	3.1E-12	3.1E-12	3.1E-12	3.3E-12
+5	5.7E-12	5.7E-12	5.7E-12	5.7E-12	5.7E-12	5.7E-12	5.7E-12	5.7E-12	5.7E-12	5.7E-12	6.1E-12
+10	1.0E-11	1.0E-11	1.0E-11	1.0E-11	1.0E-11	1.0E-11	1.0E-11	1.0E-11	1.0E-11	1.0E-11	1.1E-11
+15	1.9E-11	1.9E-11	1.9E-11	1.9E-11	1.9E-11	1.9E-11	1.9E-11	1.9E-11	1.9E-11	1.9E-11	2.1E-11
+25	6.4E-11	6.4E-11	6.4E-11	6.4E-11	6.4E-11	6.4E-11	6.4E-11	6.4E-11	6.4E-11	6.4E-11	6.9E-11
+35	2.2E-10	2.2E-10	2.2E-10	2.2E-10	2.2E-10	2.2E-10	2.2E-10	2.2E-10	2.2E-10	2.2E-10	2.3E-10
birth	3.1E-10	3.1E-10	3.1E-10	3.1E-10	3.1E-10	3.1E-10	3.1E-10	3.1E-10	3.1E-10	3.1E-10	3.3E-10
birth+1	3.3E-10	3.3E-10	3.3E-10	3.3E-10	3.3E-10	3.3E-10	3.3E-10	3.3E-10	3.3E-10	3.3E-10	3.5E-10
birth+5	3.2E-10	3.2E-10	3.2E-10	3.2E-10	3.2E-10	3.2E-10	3.2E-10	3.2E-10	3.2E-10	3.2E-10	3.4E-10
birth+10	2.9E-10	2.9E-10	2.9E-10	2.9E-10	2.9E-10	2.9E-10	2.9E-10	2.9E-10	2.9E-10	2.9E-10	3.2E-10
birth+15	2.5E-10	2.5E-10	2.5E-10	2.5E-10	2.5E-10	2.5E-10	2.5E-10	2.5E-10	2.5E-10	2.5E-10	2.7E-10
birth+20	1.8E-10	1.8E-10	1.8E-10	1.8E-10	1.8E-10	1.8E-10	1.8E-10	1.8E-10	1.8E-10	1.8E-10	1.9E-10
-260	9.8E-14	9.8E-14	9.8E-14	9.8E-14	9.8E-14	9.8E-14	9.8E-14	9.8E-14	9.8E-14	9.8E-14	1.1E-13
-52	4.9E-13	4.9E-13	4.9E-13	4.9E-13	4.9E-13	4.9E-13	4.9E-13	4.9E-13	4.9E-13	4.9E-13	5.3E-13
conception	6.7E-11	6.7E-11	6.7E-11	6.7E-11	6.7E-11	6.7E-11	6.7E-11	6.7E-11	6.7E-11	6.7E-11	7.2E-11
lactation	2.4E-10	2.4E-10	2.4E-10	2.4E-10	2.4E-10	2.4E-10	2.4E-10	2.4E-10	2.4E-10	2.4E-10	2.6E-10



Dose coefficients (Sv/Bq) for the offspring from mothers' milk  
following intake of Na-22 (T½ = 2.60 y) by the mother

Scenario*	Testes	Ovaries	Brain	R.B.M.	Thyroid	Bone sur	Liver	Kidneys	Spleen	Remainder	Effective
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type F fl = 1.0											
-130	2.6E-14	3.2E-14	2.9E-14	5.1E-14	3.1E-14	5.9E-14	2.9E-14	3.2E-14	3.1E-14	2.9E-14	3.4E-14
-26	1.2E-13	1.5E-13	1.4E-13	2.4E-13	1.4E-13	2.8E-13	1.4E-13	1.5E-13	1.4E-13	1.4E-13	1.6E-13
conception	1.8E-13	2.2E-13	2.0E-13	3.6E-13	2.1E-13	4.1E-13	2.0E-13	2.2E-13	2.1E-13	2.0E-13	2.3E-13
+5	1.9E-13	2.4E-13	2.2E-13	3.9E-13	2.3E-13	4.5E-13	2.2E-13	2.4E-13	2.3E-13	2.2E-13	2.5E-13
+10	2.1E-13	2.6E-13	2.3E-13	4.2E-13	2.5E-13	4.8E-13	2.3E-13	2.6E-13	2.5E-13	2.3E-13	2.7E-13
+15	2.3E-13	2.9E-13	2.6E-13	4.6E-13	2.7E-13	5.3E-13	2.6E-13	2.9E-13	2.7E-13	2.6E-13	3.0E-13
+25	9.7E-13	1.2E-12	1.1E-12	1.9E-12	1.2E-12	2.2E-12	1.1E-12	1.2E-12	1.2E-12	1.1E-12	1.3E-12
+35	9.6E-11	1.2E-10	1.1E-10	1.9E-10	1.1E-10	2.2E-10	1.1E-10	1.2E-10	1.1E-10	1.1E-10	1.3E-10
birth	4.2E-10	5.2E-10	4.7E-10	8.3E-10	4.9E-10	9.6E-10	4.7E-10	5.2E-10	4.9E-10	4.7E-10	5.5E-10
birth+1	5.0E-10	6.3E-10	5.6E-10	1.0E-09	6.0E-10	1.2E-09	5.6E-10	6.3E-10	6.0E-10	5.6E-10	6.6E-10
birth+5	5.0E-10	6.3E-10	5.6E-10	1.0E-09	6.0E-10	1.2E-09	5.6E-10	6.3E-10	6.0E-10	5.6E-10	6.6E-10
birth+10	5.0E-10	6.3E-10	5.6E-10	1.0E-09	6.0E-10	1.2E-09	5.6E-10	6.3E-10	6.0E-10	5.6E-10	6.6E-10
birth+15	5.0E-10	6.2E-10	5.6E-10	1.0E-09	5.9E-10	1.2E-09	5.6E-10	6.2E-10	5.9E-10	5.6E-10	6.6E-10
birth+20	4.7E-10	5.9E-10	5.3E-10	9.5E-10	5.6E-10	1.1E-09	5.3E-10	5.9E-10	5.6E-10	5.3E-10	6.2E-10
-260	4.5E-14	5.7E-14	5.1E-14	9.1E-14	5.4E-14	1.0E-13	5.1E-14	5.7E-14	5.4E-14	5.1E-14	5.9E-14
-52	1.2E-13	1.6E-13	1.4E-13	2.5E-13	1.5E-13	2.9E-13	1.4E-13	1.6E-13	1.5E-13	1.4E-13	1.6E-13
conception	2.3E-11	2.8E-11	2.5E-11	4.5E-11	2.7E-11	5.2E-11	2.5E-11	2.8E-11	2.7E-11	2.5E-11	3.0E-11
lactation	4.6E-10	5.8E-10	5.2E-10	9.3E-10	5.5E-10	1.1E-09	5.2E-10	5.8E-10	5.5E-10	5.2E-10	6.1E-10
Ingestion: fl = 1.0											
-130	5.3E-14	6.7E-14	6.0E-14	1.1E-13	6.3E-14	1.2E-13	6.0E-14	6.7E-14	6.3E-14	6.0E-14	7.0E-14
-26	2.5E-13	3.1E-13	2.8E-13	5.0E-13	3.0E-13	5.8E-13	2.8E-13	3.1E-13	3.0E-13	2.8E-13	3.3E-13
conception	3.7E-13	4.6E-13	4.2E-13	7.4E-13	4.4E-13	8.6E-13	4.2E-13	4.6E-13	4.4E-13	4.2E-13	4.9E-13
+5	4.0E-13	5.0E-13	4.5E-13	8.0E-13	4.8E-13	9.3E-13	4.5E-13	5.0E-13	4.8E-13	4.5E-13	5.3E-13
+10	4.3E-13	5.4E-13	4.9E-13	8.6E-13	5.1E-13	1.0E-12	4.9E-13	5.4E-13	5.1E-13	4.9E-13	5.7E-13
+15	4.8E-13	5.9E-13	5.3E-13	9.5E-13	5.6E-13	1.1E-12	5.3E-13	5.9E-13	5.6E-13	5.3E-13	6.2E-13
+25	2.0E-12	2.5E-12	2.3E-12	4.0E-12	2.4E-12	4.7E-12	2.3E-12	2.5E-12	2.4E-12	2.3E-12	2.7E-12
+35	2.0E-10	2.5E-10	2.3E-10	4.0E-10	2.4E-10	4.6E-10	2.3E-10	2.5E-10	2.4E-10	2.3E-10	2.6E-10
birth	8.6E-10	1.1E-09	9.7E-10	1.7E-09	1.0E-09	2.0E-09	9.7E-10	1.1E-09	1.0E-09	9.7E-10	1.1E-09
birth+1	1.0E-09	1.3E-09	1.2E-09	2.1E-09	1.2E-09	2.4E-09	1.2E-09	1.3E-09	1.2E-09	1.2E-09	1.4E-09
birth+5	1.0E-09	1.3E-09	1.2E-09	2.1E-09	1.2E-09	2.4E-09	1.2E-09	1.3E-09	1.2E-09	1.2E-09	1.4E-09
birth+10	1.0E-09	1.3E-09	1.2E-09	2.1E-09	1.2E-09	2.4E-09	1.2E-09	1.3E-09	1.2E-09	1.2E-09	1.4E-09
birth+15	1.0E-09	1.3E-09	1.2E-09	2.1E-09	1.2E-09	2.4E-09	1.2E-09	1.3E-09	1.2E-09	1.2E-09	1.4E-09
birth+20	9.8E-10	1.2E-09	1.1E-09	2.0E-09	1.2E-09	2.3E-09	1.1E-09	1.2E-09	1.2E-09	1.1E-09	1.3E-09
-260	9.4E-14	1.2E-13	1.1E-13	1.9E-13	1.1E-13	2.2E-13	1.1E-13	1.2E-13	1.1E-13	1.1E-13	1.2E-13
-52	2.6E-13	3.2E-13	2.9E-13	5.2E-13	3.1E-13	6.0E-13	2.9E-13	3.2E-13	3.1E-13	2.9E-13	3.4E-13
conception	4.7E-11	5.9E-11	5.3E-11	9.4E-11	5.6E-11	1.1E-10	5.3E-11	5.9E-11	5.6E-11	5.3E-11	6.2E-11
lactation	9.6E-10	1.2E-09	1.1E-09	1.9E-09	1.1E-09	2.2E-09	1.1E-09	1.2E-09	1.1E-09	1.1E-09	1.3E-09

Dose coefficients (Sv/Bq) for the offspring from mothers' milk  
following intake of Na-24 (T½ = 15.0 h) by the mother

Scenario*	Testes	Ovaries	Brain	R.B.M.	Thyroid	Bone sur	Liver	Kidneys	Spleen	Remainder	Effective
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type F fl = 1.0											
-130	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-26	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
conception	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+10	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+15	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+25	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+35	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
birth	2.6E-13	3.1E-13	2.7E-13	4.3E-13	2.8E-13	4.7E-13	3.0E-13	3.0E-13	3.1E-13	2.7E-13	4.7E-13
birth+1	1.6E-12	2.0E-12	1.7E-12	2.7E-12	1.8E-12	3.0E-12	1.9E-12	1.9E-12	2.0E-12	1.7E-12	3.0E-12
birth+5	1.6E-12	2.0E-12	1.7E-12	2.7E-12	1.8E-12	3.0E-12	1.9E-12	1.9E-12	2.0E-12	1.7E-12	3.0E-12
birth+10	1.6E-12	2.0E-12	1.7E-12	2.7E-12	1.8E-12	3.0E-12	1.9E-12	1.9E-12	2.0E-12	1.7E-12	3.0E-12
birth+15	1.6E-12	2.0E-12	1.7E-12	2.7E-12	1.8E-12	3.0E-12	1.9E-12	1.9E-12	2.0E-12	1.7E-12	3.0E-12
birth+20	1.6E-12	2.0E-12	1.7E-12	2.7E-12	1.8E-12	3.0E-12	1.9E-12	1.9E-12	2.0E-12	1.7E-12	3.0E-12
-260	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-52	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
conception	9.3E-16	1.1E-15	9.8E-16	1.6E-15	1.0E-15	1.7E-15	1.1E-15	1.1E-15	1.1E-15	9.8E-16	1.7E-15
lactation	1.6E-12	1.9E-12	1.7E-12	2.7E-12	1.8E-12	2.9E-12	1.8E-12	1.8E-12	1.9E-12	1.7E-12	2.9E-12
Ingestion: fl = 1.0											
-130	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-26	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
conception	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+10	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+15	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+25	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+35	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
birth	5.3E-13	6.4E-13	5.6E-13	8.9E-13	5.8E-13	9.7E-13	6.1E-13	6.1E-13	6.4E-13	5.6E-13	9.7E-13
birth+1	3.3E-12	4.0E-12	3.4E-12	5.5E-12	3.6E-12	6.0E-12	3.8E-12	3.8E-12	4.0E-12	3.4E-12	6.0E-12
birth+5	3.3E-12	4.0E-12	3.4E-12	5.5E-12	3.6E-12	6.0E-12	3.8E-12	3.8E-12	4.0E-12	3.4E-12	6.0E-12
birth+10	3.3E-12	4.0E-12	3.4E-12	5.5E-12	3.6E-12	6.0E-12	3.8E-12	3.8E-12	4.0E-12	3.4E-12	6.0E-12
birth+15	3.3E-12	4.0E-12	3.4E-12	5.5E-12	3.6E-12	6.0E-12	3.8E-12	3.8E-12	4.0E-12	3.4E-12	6.0E-12
birth+20	3.3E-12	4.0E-12	3.4E-12	5.5E-12	3.6E-12	6.0E-12	3.8E-12	3.8E-12	4.0E-12	3.4E-12	6.0E-12
-260	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-52	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
conception	1.9E-15	2.3E-15	2.0E-15	3.2E-15	2.1E-15	3.6E-15	2.2E-15	2.2E-15	2.3E-15	2.0E-15	3.6E-15
lactation	3.2E-12	3.9E-12	3.4E-12	5.5E-12	3.6E-12	6.0E-12	3.8E-12	3.8E-12	3.9E-12	3.4E-12	6.0E-12

Dose coefficients (Sv/Bq) for the offspring from mothers' milk  
following intake of Mg-28 (T½ = 20.9 h) by the mother

Scenario*	Testes	Ovaries	Brain	R.B.M.	Thyroid	Bone sur	Liver	Kidneys	Spleen	Remainder	Effective
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type F fl = 0.5											
-130	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-26	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
conception	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+10	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+15	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+25	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+35	7.6E-21	1.0E-20	7.9E-21	6.0E-20	8.1E-21	4.8E-20	8.6E-21	8.6E-21	8.6E-21	8.1E-21	2.9E-20
birth	1.7E-12	2.3E-12	1.8E-12	1.4E-11	1.8E-12	1.1E-11	1.9E-12	1.9E-12	1.9E-12	1.8E-12	6.5E-12
birth+1	4.9E-11	6.5E-11	5.1E-11	3.9E-10	5.2E-11	3.1E-10	5.5E-11	5.5E-11	5.6E-11	5.2E-11	1.9E-10
birth+5	4.9E-11	6.5E-11	5.1E-11	3.9E-10	5.2E-11	3.1E-10	5.5E-11	5.5E-11	5.6E-11	5.2E-11	1.9E-10
birth+10	4.9E-11	6.5E-11	5.1E-11	3.9E-10	5.2E-11	3.1E-10	5.5E-11	5.5E-11	5.6E-11	5.2E-11	1.9E-10
birth+15	4.9E-11	6.5E-11	5.1E-11	3.9E-10	5.2E-11	3.1E-10	5.5E-11	5.5E-11	5.6E-11	5.2E-11	1.9E-10
birth+20	4.9E-11	6.5E-11	5.1E-11	3.9E-10	5.2E-11	3.1E-10	5.5E-11	5.5E-11	5.6E-11	5.2E-11	1.9E-10
-260	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-52	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
conception	3.1E-15	4.0E-15	3.2E-15	2.4E-14	3.3E-15	1.9E-14	3.5E-15	3.5E-15	3.5E-15	3.3E-15	1.2E-14
lactation	4.9E-11	6.4E-11	5.0E-11	3.8E-10	5.2E-11	3.1E-10	5.5E-11	5.5E-11	5.5E-11	5.2E-11	1.8E-10
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type M fl = 0.5											
-130	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-26	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
conception	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+10	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+15	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+25	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+35	4.2E-21	5.5E-21	4.3E-21	3.3E-20	4.5E-21	2.6E-20	4.7E-21	4.7E-21	4.7E-21	4.5E-21	1.6E-20
birth	1.2E-12	1.6E-12	1.3E-12	9.5E-12	1.3E-12	7.6E-12	1.4E-12	1.4E-12	1.4E-12	1.3E-12	4.6E-12
birth+1	2.8E-11	3.6E-11	2.8E-11	2.2E-10	2.9E-11	1.7E-10	3.1E-11	3.1E-11	3.1E-11	2.9E-11	1.0E-10
birth+5	2.8E-11	3.6E-11	2.8E-11	2.2E-10	2.9E-11	1.7E-10	3.1E-11	3.1E-11	3.1E-11	2.9E-11	1.0E-10
birth+10	2.8E-11	3.6E-11	2.8E-11	2.2E-10	2.9E-11	1.7E-10	3.1E-11	3.1E-11	3.1E-11	2.9E-11	1.0E-10
birth+15	2.8E-11	3.6E-11	2.8E-11	2.2E-10	2.9E-11	1.7E-10	3.1E-11	3.1E-11	3.1E-11	2.9E-11	1.0E-10
birth+20	2.8E-11	3.6E-11	2.8E-11	2.2E-10	2.9E-11	1.7E-10	3.1E-11	3.1E-11	3.1E-11	2.9E-11	1.0E-10
-260	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-52	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
conception	2.2E-15	2.9E-15	2.2E-15	1.7E-14	2.3E-15	1.4E-14	2.5E-15	2.5E-15	2.5E-15	2.3E-15	8.3E-15
lactation	2.7E-11	3.6E-11	2.8E-11	2.1E-10	2.9E-11	1.7E-10	3.1E-11	3.1E-11	3.1E-11	2.9E-11	1.0E-10
Ingestion: fl = 0.5											
-130	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-26	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
conception	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+10	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+15	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+25	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+35	9.7E-21	1.3E-20	1.0E-20	7.6E-20	1.0E-20	6.1E-20	1.1E-20	1.1E-20	1.1E-20	1.0E-20	3.7E-20
birth	2.7E-12	3.5E-12	2.8E-12	2.1E-11	2.8E-12	1.7E-11	3.0E-12	3.0E-12	3.0E-12	2.8E-12	1.0E-11
birth+1	6.1E-11	8.0E-11	6.3E-11	4.8E-10	6.5E-11	3.8E-10	6.9E-11	6.9E-11	6.9E-11	6.5E-11	2.3E-10
birth+5	6.1E-11	8.0E-11	6.3E-11	4.8E-10	6.5E-11	3.8E-10	6.9E-11	6.9E-11	6.9E-11	6.5E-11	2.3E-10
birth+10	6.1E-11	8.0E-11	6.3E-11	4.8E-10	6.5E-11	3.8E-10	6.9E-11	6.9E-11	6.9E-11	6.5E-11	2.3E-10
birth+15	6.1E-11	8.0E-11	6.3E-11	4.8E-10	6.5E-11	3.8E-10	6.9E-11	6.9E-11	6.9E-11	6.5E-11	2.3E-10
birth+20	6.1E-11	8.0E-11	6.3E-11	4.8E-10	6.5E-11	3.8E-10	6.9E-11	6.9E-11	6.9E-11	6.5E-11	2.3E-10
-260	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-52	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
conception	4.6E-15	6.0E-15	4.7E-15	3.6E-14	4.9E-15	2.9E-14	5.2E-15	5.2E-15	5.2E-15	4.9E-15	1.7E-14
lactation	6.0E-11	7.9E-11	6.2E-11	4.7E-10	6.4E-11	3.8E-10	6.8E-11	6.8E-11	6.8E-11	6.4E-11	2.3E-10

Dose coefficients (Sv/Bq) for the offspring from mothers' milk  
following intake of P-32 (T½ = 14.3 d) by the mother

Scenario*	Testes	Ovaries	Brain	R.B.M.	Thyroid	Bone sur	Liver	Kidneys	Spleen	Remainder	Effective
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type F fl = 0.8											
-130	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-26	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
conception	2.9E-18	2.9E-18	2.9E-18	5.4E-17	2.9E-18	2.0E-17	2.9E-18	2.9E-18	2.9E-18	2.9E-18	9.8E-18
+5	1.6E-17	1.6E-17	1.6E-17	3.0E-16	1.6E-17	1.1E-16	1.6E-17	1.6E-17	1.6E-17	1.6E-17	5.5E-17
+10	9.2E-17	9.2E-17	9.2E-17	1.7E-15	9.2E-17	6.3E-16	9.2E-17	9.2E-17	9.2E-17	9.2E-17	3.1E-16
+15	5.7E-16	5.7E-16	5.7E-16	1.1E-14	5.7E-16	3.9E-15	5.7E-16	5.7E-16	5.7E-16	5.7E-16	2.0E-15
+25	4.7E-14	4.7E-14	4.7E-14	8.8E-13	4.7E-14	3.2E-13	4.7E-14	4.7E-14	4.7E-14	4.7E-14	1.6E-13
+35	1.3E-11	1.3E-11	1.3E-11	2.4E-10	1.3E-11	8.8E-11	1.3E-11	1.3E-11	1.3E-11	1.3E-11	4.4E-11
birth	1.2E-10	1.2E-10	1.2E-10	2.2E-09	1.2E-10	7.9E-10	1.2E-10	1.2E-10	1.2E-10	1.2E-10	3.9E-10
birth+1	2.7E-10	2.7E-10	2.7E-10	5.0E-09	2.7E-10	1.8E-09	2.7E-10	2.7E-10	2.7E-10	2.7E-10	9.0E-10
birth+5	2.7E-10	2.7E-10	2.7E-10	5.0E-09	2.7E-10	1.8E-09	2.7E-10	2.7E-10	2.7E-10	2.7E-10	9.0E-10
birth+10	2.7E-10	2.7E-10	2.7E-10	5.0E-09	2.7E-10	1.8E-09	2.7E-10	2.7E-10	2.7E-10	2.7E-10	9.0E-10
birth+15	2.7E-10	2.7E-10	2.7E-10	5.0E-09	2.7E-10	1.8E-09	2.7E-10	2.7E-10	2.7E-10	2.7E-10	9.0E-10
birth+20	2.6E-10	2.6E-10	2.6E-10	4.9E-09	2.6E-10	1.8E-09	2.6E-10	2.6E-10	2.6E-10	2.6E-10	8.9E-10
-260	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-52	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
conception	3.8E-12	3.8E-12	3.8E-12	7.0E-11	3.8E-12	2.6E-11	3.8E-12	3.8E-12	3.8E-12	3.8E-12	1.3E-11
lactation	2.6E-10	2.6E-10	2.6E-10	4.8E-09	2.6E-10	1.8E-09	2.6E-10	2.6E-10	2.6E-10	2.6E-10	8.8E-10
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type M fl = 0.8											
-130	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-26	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
conception	4.0E-18	4.0E-18	4.0E-18	7.5E-17	4.0E-18	2.7E-17	4.0E-18	4.0E-18	4.0E-18	4.0E-18	1.4E-17
+5	2.4E-17	2.4E-17	2.4E-17	4.5E-16	2.4E-17	1.6E-16	2.4E-17	2.4E-17	2.4E-17	2.4E-17	8.2E-17
+10	1.5E-16	1.5E-16	1.5E-16	2.8E-15	1.5E-16	1.0E-15	1.5E-16	1.5E-16	1.5E-16	1.5E-16	5.1E-16
+15	9.7E-16	9.7E-16	9.7E-16	1.8E-14	9.7E-16	6.6E-15	9.7E-16	9.7E-16	9.7E-16	9.7E-16	3.3E-15
+25	6.6E-14	6.6E-14	6.6E-14	1.2E-12	6.6E-14	4.5E-13	6.6E-14	6.6E-14	6.6E-14	6.6E-14	2.2E-13
+35	1.2E-11	1.2E-11	1.2E-11	2.2E-10	1.2E-11	8.1E-11	1.2E-11	1.2E-11	1.2E-11	1.2E-11	4.1E-11
birth	9.7E-11	9.7E-11	9.7E-11	1.8E-09	9.7E-11	6.6E-10	9.7E-11	9.7E-11	9.7E-11	9.7E-11	3.3E-10
birth+1	2.2E-10	2.2E-10	2.2E-10	4.0E-09	2.2E-10	1.5E-09	2.2E-10	2.2E-10	2.2E-10	2.2E-10	7.4E-10
birth+5	2.2E-10	2.2E-10	2.2E-10	4.0E-09	2.2E-10	1.5E-09	2.2E-10	2.2E-10	2.2E-10	2.2E-10	7.4E-10
birth+10	2.2E-10	2.2E-10	2.2E-10	4.0E-09	2.2E-10	1.5E-09	2.2E-10	2.2E-10	2.2E-10	2.2E-10	7.4E-10
birth+15	2.2E-10	2.2E-10	2.2E-10	4.0E-09	2.2E-10	1.5E-09	2.2E-10	2.2E-10	2.2E-10	2.2E-10	7.4E-10
birth+20	2.1E-10	2.1E-10	2.1E-10	4.0E-09	2.1E-10	1.5E-09	2.1E-10	2.1E-10	2.1E-10	2.1E-10	7.3E-10
-260	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-52	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
conception	3.3E-12	3.3E-12	3.3E-12	6.2E-11	3.3E-12	2.3E-11	3.3E-12	3.3E-12	3.3E-12	3.3E-12	1.1E-11
lactation	2.1E-10	2.1E-10	2.1E-10	3.9E-09	2.1E-10	1.4E-09	2.1E-10	2.1E-10	2.1E-10	2.1E-10	7.1E-10
Ingestion: fl = 0.8											
-130	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-26	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
conception	5.2E-18	5.2E-18	5.2E-18	9.8E-17	5.2E-18	3.6E-17	5.2E-18	5.2E-18	5.2E-18	5.2E-18	1.8E-17
+5	2.9E-17	2.9E-17	2.9E-17	5.5E-16	2.9E-17	2.0E-16	2.9E-17	2.9E-17	2.9E-17	2.9E-17	1.0E-16
+10	1.7E-16	1.7E-16	1.7E-16	3.1E-15	1.7E-16	1.1E-15	1.7E-16	1.7E-16	1.7E-16	1.7E-16	5.7E-16
+15	1.0E-15	1.0E-15	1.0E-15	2.0E-14	1.0E-15	7.1E-15	1.0E-15	1.0E-15	1.0E-15	1.0E-15	3.6E-15
+25	8.6E-14	8.6E-14	8.6E-14	1.6E-12	8.6E-14	5.9E-13	8.6E-14	8.6E-14	8.6E-14	8.6E-14	2.9E-13
+35	2.4E-11	2.4E-11	2.4E-11	4.4E-10	2.4E-11	1.6E-10	2.4E-11	2.4E-11	2.4E-11	2.4E-11	8.0E-11
birth	2.1E-10	2.1E-10	2.1E-10	4.0E-09	2.1E-10	1.4E-09	2.1E-10	2.1E-10	2.1E-10	2.1E-10	7.2E-10
birth+1	4.9E-10	4.9E-10	4.9E-10	9.1E-09	4.9E-10	3.3E-09	4.9E-10	4.9E-10	4.9E-10	4.9E-10	1.7E-09
birth+5	4.9E-10	4.9E-10	4.9E-10	9.1E-09	4.9E-10	3.3E-09	4.9E-10	4.9E-10	4.9E-10	4.9E-10	1.7E-09
birth+10	4.9E-10	4.9E-10	4.9E-10	9.1E-09	4.9E-10	3.3E-09	4.9E-10	4.9E-10	4.9E-10	4.9E-10	1.7E-09
birth+15	4.9E-10	4.9E-10	4.9E-10	9.1E-09	4.9E-10	3.3E-09	4.9E-10	4.9E-10	4.9E-10	4.9E-10	1.7E-09
birth+20	4.8E-10	4.8E-10	4.8E-10	9.0E-09	4.8E-10	3.3E-09	4.8E-10	4.8E-10	4.8E-10	4.8E-10	1.6E-09
-260	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-52	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
conception	6.9E-12	6.9E-12	6.9E-12	1.3E-10	6.9E-12	4.7E-11	6.9E-12	6.9E-12	6.9E-12	6.9E-12	2.3E-11
lactation	4.8E-10	4.8E-10	4.8E-10	8.9E-09	4.8E-10	3.2E-09	4.8E-10	4.8E-10	4.8E-10	4.8E-10	1.6E-09

Dose coefficients (Sv/Bq) for the offspring from mothers' milk following intake of P-33 (T½ = 25.4 d) by the mother

Scenario*	Testes	Ovaries	Brain	R.B.M.	Thyroid	Bone sur	Liver	Kidneys	Spleen	Remainder	Effective
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type F fl = 0.8											
-130	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-26	1.4E-18	1.4E-18	1.4E-18	1.0E-17	1.4E-18	1.0E-17	1.4E-18	1.4E-18	1.4E-18	1.4E-18	2.8E-18
conception	2.2E-16	2.2E-16	2.2E-16	1.6E-15	2.2E-16	1.7E-15	2.2E-16	2.2E-16	2.2E-16	2.2E-16	4.5E-16
+5	5.8E-16	5.8E-16	5.8E-16	4.3E-15	5.8E-16	4.5E-15	5.8E-16	5.8E-16	5.8E-16	5.8E-16	1.2E-15
+10	1.6E-15	1.6E-15	1.6E-15	1.2E-14	1.6E-15	1.2E-14	1.6E-15	1.6E-15	1.6E-15	1.6E-15	3.3E-15
+15	4.5E-15	4.5E-15	4.5E-15	3.3E-14	4.5E-15	3.5E-14	4.5E-15	4.5E-15	4.5E-15	4.5E-15	9.4E-15
+25	7.4E-14	7.4E-14	7.4E-14	5.4E-13	7.4E-14	5.7E-13	7.4E-14	7.4E-14	7.4E-14	7.4E-14	1.5E-13
+35	4.2E-12	4.2E-12	4.2E-12	3.1E-11	4.2E-12	3.2E-11	4.2E-12	4.2E-12	4.2E-12	4.2E-12	8.6E-12
birth	2.2E-11	2.2E-11	2.2E-11	1.6E-10	2.2E-11	1.7E-10	2.2E-11	2.2E-11	2.2E-11	2.2E-11	4.5E-11
birth+1	4.4E-11	4.4E-11	4.4E-11	3.2E-10	4.4E-11	3.4E-10	4.4E-11	4.4E-11	4.4E-11	4.4E-11	9.1E-11
birth+5	4.4E-11	4.4E-11	4.4E-11	3.2E-10	4.4E-11	3.4E-10	4.4E-11	4.4E-11	4.4E-11	4.4E-11	9.1E-11
birth+10	4.4E-11	4.4E-11	4.4E-11	3.2E-10	4.4E-11	3.4E-10	4.4E-11	4.4E-11	4.4E-11	4.4E-11	9.1E-11
birth+15	4.4E-11	4.4E-11	4.4E-11	3.2E-10	4.4E-11	3.4E-10	4.4E-11	4.4E-11	4.4E-11	4.4E-11	9.1E-11
birth+20	4.3E-11	4.3E-11	4.3E-11	3.1E-10	4.3E-11	3.3E-10	4.3E-11	4.3E-11	4.3E-11	4.3E-11	8.8E-11
-260	4.3E-18	4.3E-18	4.3E-18	3.2E-17	4.3E-18	3.3E-17	4.3E-18	4.3E-18	4.3E-18	4.3E-18	8.9E-18
-52	2.2E-17	2.2E-17	2.2E-17	1.6E-16	2.2E-17	1.7E-16	2.2E-17	2.2E-17	2.2E-17	2.2E-17	4.5E-17
conception	1.0E-12	1.0E-12	1.0E-12	7.4E-12	1.0E-12	7.7E-12	1.0E-12	1.0E-12	1.0E-12	1.0E-12	2.1E-12
lactation	4.2E-11	4.2E-11	4.2E-11	3.1E-10	4.2E-11	3.2E-10	4.2E-11	4.2E-11	4.2E-11	4.2E-11	8.7E-11
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type M fl = 0.8											
-130	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-26	1.5E-18	1.5E-18	1.5E-18	1.1E-17	1.5E-18	1.1E-17	1.5E-18	1.5E-18	1.5E-18	1.5E-18	3.0E-18
conception	3.0E-16	3.0E-16	3.0E-16	2.2E-15	3.0E-16	2.3E-15	3.0E-16	3.0E-16	3.0E-16	3.0E-16	6.2E-16
+5	8.5E-16	8.5E-16	8.5E-16	6.2E-15	8.5E-16	6.5E-15	8.5E-16	8.5E-16	8.5E-16	8.5E-16	1.8E-15
+10	2.5E-15	2.5E-15	2.5E-15	1.8E-14	2.5E-15	1.9E-14	2.5E-15	2.5E-15	2.5E-15	2.5E-15	5.1E-15
+15	7.5E-15	7.5E-15	7.5E-15	5.6E-14	7.5E-15	5.8E-14	7.5E-15	7.5E-15	7.5E-15	7.5E-15	1.6E-14
+25	1.1E-13	1.1E-13	1.1E-13	7.8E-13	1.1E-13	8.1E-13	1.1E-13	1.1E-13	1.1E-13	1.1E-13	2.2E-13
+35	3.9E-12	3.9E-12	3.9E-12	2.9E-11	3.9E-12	3.0E-11	3.9E-12	3.9E-12	3.9E-12	3.9E-12	8.2E-12
birth	1.9E-11	1.9E-11	1.9E-11	1.4E-10	1.9E-11	1.4E-10	1.9E-11	1.9E-11	1.9E-11	1.9E-11	3.9E-11
birth+1	3.6E-11	3.6E-11	3.6E-11	2.7E-10	3.6E-11	2.8E-10	3.6E-11	3.6E-11	3.6E-11	3.6E-11	7.5E-11
birth+5	3.6E-11	3.6E-11	3.6E-11	2.7E-10	3.6E-11	2.8E-10	3.6E-11	3.6E-11	3.6E-11	3.6E-11	7.5E-11
birth+10	3.6E-11	3.6E-11	3.6E-11	2.7E-10	3.6E-11	2.8E-10	3.6E-11	3.6E-11	3.6E-11	3.6E-11	7.5E-11
birth+15	3.6E-11	3.6E-11	3.6E-11	2.7E-10	3.6E-11	2.8E-10	3.6E-11	3.6E-11	3.6E-11	3.6E-11	7.5E-11
birth+20	3.5E-11	3.5E-11	3.5E-11	2.6E-10	3.5E-11	2.7E-10	3.5E-11	3.5E-11	3.5E-11	3.5E-11	7.2E-11
-260	5.5E-18	5.5E-18	5.5E-18	4.1E-17	5.5E-18	4.3E-17	5.5E-18	5.5E-18	5.5E-18	5.5E-18	1.1E-17
-52	2.8E-17	2.8E-17	2.8E-17	2.0E-16	2.8E-17	2.1E-16	2.8E-17	2.8E-17	2.8E-17	2.8E-17	5.7E-17
conception	9.3E-13	9.3E-13	9.3E-13	6.9E-12	9.3E-13	7.2E-12	9.3E-13	9.3E-13	9.3E-13	9.3E-13	1.9E-12
lactation	3.5E-11	3.5E-11	3.5E-11	2.5E-10	3.5E-11	2.7E-10	3.5E-11	3.5E-11	3.5E-11	3.5E-11	7.2E-11
Ingestion: fl = 0.8											
-130	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-26	2.5E-18	2.5E-18	2.5E-18	1.8E-17	2.5E-18	1.9E-17	2.5E-18	2.5E-18	2.5E-18	2.5E-18	5.1E-18
conception	4.0E-16	4.0E-16	4.0E-16	2.9E-15	4.0E-16	3.1E-15	4.0E-16	4.0E-16	4.0E-16	4.0E-16	8.3E-16
+5	1.1E-15	1.1E-15	1.1E-15	7.8E-15	1.1E-15	8.2E-15	1.1E-15	1.1E-15	1.1E-15	1.1E-15	2.2E-15
+10	2.9E-15	2.9E-15	2.9E-15	2.1E-14	2.9E-15	2.2E-14	2.9E-15	2.9E-15	2.9E-15	2.9E-15	6.0E-15
+15	8.3E-15	8.3E-15	8.3E-15	6.1E-14	8.3E-15	6.4E-14	8.3E-15	8.3E-15	8.3E-15	8.3E-15	1.7E-14
+25	1.3E-13	1.3E-13	1.3E-13	9.9E-13	1.3E-13	1.0E-12	1.3E-13	1.3E-13	1.3E-13	1.3E-13	2.8E-13
+35	7.6E-12	7.6E-12	7.6E-12	5.6E-11	7.6E-12	5.8E-11	7.6E-12	7.6E-12	7.6E-12	7.6E-12	1.6E-11
birth	4.0E-11	4.0E-11	4.0E-11	3.0E-10	4.0E-11	3.1E-10	4.0E-11	4.0E-11	4.0E-11	4.0E-11	8.3E-11
birth+1	8.1E-11	8.1E-11	8.1E-11	6.0E-10	8.1E-11	6.2E-10	8.1E-11	8.1E-11	8.1E-11	8.1E-11	1.7E-10
birth+5	8.1E-11	8.1E-11	8.1E-11	6.0E-10	8.1E-11	6.2E-10	8.1E-11	8.1E-11	8.1E-11	8.1E-11	1.7E-10
birth+10	8.1E-11	8.1E-11	8.1E-11	6.0E-10	8.1E-11	6.2E-10	8.1E-11	8.1E-11	8.1E-11	8.1E-11	1.7E-10
birth+15	8.1E-11	8.1E-11	8.1E-11	6.0E-10	8.1E-11	6.2E-10	8.1E-11	8.1E-11	8.1E-11	8.1E-11	1.7E-10
birth+20	7.8E-11	7.8E-11	7.8E-11	5.8E-10	7.8E-11	6.0E-10	7.8E-11	7.8E-11	7.8E-11	7.8E-11	1.6E-10
-260	7.8E-18	7.8E-18	7.8E-18	5.8E-17	7.8E-18	6.0E-17	7.8E-18	7.8E-18	7.8E-18	7.8E-18	1.6E-17
-52	3.9E-17	3.9E-17	3.9E-17	2.9E-16	3.9E-17	3.0E-16	3.9E-17	3.9E-17	3.9E-17	3.9E-17	8.2E-17
conception	1.8E-12	1.8E-12	1.8E-12	1.4E-11	1.8E-12	1.4E-11	1.8E-12	1.8E-12	1.8E-12	1.8E-12	3.8E-12
lactation	7.8E-11	7.8E-11	7.8E-11	5.7E-10	7.8E-11	6.0E-10	7.8E-11	7.8E-11	7.8E-11	7.8E-11	1.6E-10

Dose coefficients (Sv/Bq) for the offspring from mothers' milk  
following intake of S-35 (T½ = 87.4 d) by the mother

Scenario*	Testes	Ovaries	Brain	R.B.M.	Thyroid	Bone sur	Liver	Kidneys	Spleen	Remainder	Effective
Inhalation of vapour											
-130	1.7E-19	1.7E-19	1.7E-19	1.7E-19	1.7E-19	1.7E-19	1.7E-19	1.7E-19	1.7E-19	1.7E-19	1.7E-19
-26	8.9E-13	8.9E-13	8.9E-13	8.9E-13	8.9E-13	8.9E-13	8.9E-13	8.9E-13	8.9E-13	8.9E-13	9.1E-13
conception	9.4E-12	9.4E-12	9.4E-12	9.4E-12	9.4E-12	9.4E-12	9.4E-12	9.4E-12	9.4E-12	9.4E-12	9.6E-12
+5	1.5E-11	1.5E-11	1.5E-11	1.5E-11	1.5E-11	1.5E-11	1.5E-11	1.5E-11	1.5E-11	1.5E-11	1.5E-11
+10	2.3E-11	2.3E-11	2.3E-11	2.3E-11	2.3E-11	2.3E-11	2.3E-11	2.3E-11	2.3E-11	2.3E-11	2.4E-11
+15	3.6E-11	3.6E-11	3.6E-11	3.6E-11	3.6E-11	3.6E-11	3.6E-11	3.6E-11	3.6E-11	3.6E-11	3.7E-11
+25	8.9E-11	8.9E-11	8.9E-11	8.9E-11	8.9E-11	8.9E-11	8.9E-11	8.9E-11	8.9E-11	8.9E-11	9.2E-11
+35	2.2E-10	2.2E-10	2.2E-10	2.2E-10	2.2E-10	2.2E-10	2.2E-10	2.2E-10	2.2E-10	2.2E-10	2.3E-10
birth	2.9E-10	2.9E-10	2.9E-10	2.9E-10	2.9E-10	2.9E-10	2.9E-10	2.9E-10	2.9E-10	2.9E-10	3.0E-10
birth+1	3.0E-10	3.0E-10	3.0E-10	3.0E-10	3.0E-10	3.0E-10	3.0E-10	3.0E-10	3.0E-10	3.0E-10	3.1E-10
birth+5	2.8E-10	2.8E-10	2.8E-10	2.8E-10	2.8E-10	2.8E-10	2.8E-10	2.8E-10	2.8E-10	2.8E-10	2.9E-10
birth+10	2.5E-10	2.5E-10	2.5E-10	2.5E-10	2.5E-10	2.5E-10	2.5E-10	2.5E-10	2.5E-10	2.5E-10	2.6E-10
birth+15	2.1E-10	2.1E-10	2.1E-10	2.1E-10	2.1E-10	2.1E-10	2.1E-10	2.1E-10	2.1E-10	2.1E-10	2.1E-10
birth+20	1.4E-10	1.4E-10	1.4E-10	1.4E-10	1.4E-10	1.4E-10	1.4E-10	1.4E-10	1.4E-10	1.4E-10	1.4E-10
-260	4.0E-13	4.0E-13	4.0E-13	4.0E-13	4.0E-13	4.0E-13	4.0E-13	4.0E-13	4.0E-13	4.0E-13	4.1E-13
-52	2.0E-12	2.0E-12	2.0E-12	2.0E-12	2.0E-12	2.0E-12	2.0E-12	2.0E-12	2.0E-12	2.0E-12	2.0E-12
conception	8.2E-11	8.2E-11	8.2E-11	8.2E-11	8.2E-11	8.2E-11	8.2E-11	8.2E-11	8.2E-11	8.2E-11	8.4E-11
lactation	2.0E-10	2.0E-10	2.0E-10	2.0E-10	2.0E-10	2.0E-10	2.0E-10	2.0E-10	2.0E-10	2.0E-10	2.1E-10
Ingestion (organic sulphur): f1 = 1.0											
-130	2.2E-19	2.2E-19	2.2E-19	2.2E-19	2.2E-19	2.2E-19	2.2E-19	2.2E-19	2.2E-19	2.2E-19	2.3E-19
-26	1.0E-12	1.0E-12	1.0E-12	1.0E-12	1.0E-12	1.0E-12	1.0E-12	1.0E-12	1.0E-12	1.0E-12	1.0E-12
conception	1.1E-11	1.1E-11	1.1E-11	1.1E-11	1.1E-11	1.1E-11	1.1E-11	1.1E-11	1.1E-11	1.1E-11	1.1E-11
+5	1.7E-11	1.7E-11	1.7E-11	1.7E-11	1.7E-11	1.7E-11	1.7E-11	1.7E-11	1.7E-11	1.7E-11	1.7E-11
+10	2.6E-11	2.6E-11	2.6E-11	2.6E-11	2.6E-11	2.6E-11	2.6E-11	2.6E-11	2.6E-11	2.6E-11	2.7E-11
+15	4.1E-11	4.1E-11	4.1E-11	4.1E-11	4.1E-11	4.1E-11	4.1E-11	4.1E-11	4.1E-11	4.1E-11	4.2E-11
+25	1.0E-10	1.0E-10	1.0E-10	1.0E-10	1.0E-10	1.0E-10	1.0E-10	1.0E-10	1.0E-10	1.0E-10	1.0E-10
+35	2.5E-10	2.5E-10	2.5E-10	2.5E-10	2.5E-10	2.5E-10	2.5E-10	2.5E-10	2.5E-10	2.5E-10	2.5E-10
birth	3.2E-10	3.2E-10	3.2E-10	3.2E-10	3.2E-10	3.2E-10	3.2E-10	3.2E-10	3.2E-10	3.2E-10	3.3E-10
birth+1	3.3E-10	3.3E-10	3.3E-10	3.3E-10	3.3E-10	3.3E-10	3.3E-10	3.3E-10	3.3E-10	3.3E-10	3.4E-10
birth+5	3.2E-10	3.2E-10	3.2E-10	3.2E-10	3.2E-10	3.2E-10	3.2E-10	3.2E-10	3.2E-10	3.2E-10	3.3E-10
birth+10	2.9E-10	2.9E-10	2.9E-10	2.9E-10	2.9E-10	2.9E-10	2.9E-10	2.9E-10	2.9E-10	2.9E-10	2.9E-10
birth+15	2.3E-10	2.3E-10	2.3E-10	2.3E-10	2.3E-10	2.3E-10	2.3E-10	2.3E-10	2.3E-10	2.3E-10	2.4E-10
birth+20	1.5E-10	1.5E-10	1.5E-10	1.5E-10	1.5E-10	1.5E-10	1.5E-10	1.5E-10	1.5E-10	1.5E-10	1.6E-10
-260	4.5E-13	4.5E-13	4.5E-13	4.5E-13	4.5E-13	4.5E-13	4.5E-13	4.5E-13	4.5E-13	4.5E-13	4.6E-13
-52	2.2E-12	2.2E-12	2.2E-12	2.2E-12	2.2E-12	2.2E-12	2.2E-12	2.2E-12	2.2E-12	2.2E-12	2.3E-12
conception	9.2E-11	9.2E-11	9.2E-11	9.2E-11	9.2E-11	9.2E-11	9.2E-11	9.2E-11	9.2E-11	9.2E-11	9.4E-11
lactation	2.3E-10	2.3E-10	2.3E-10	2.3E-10	2.3E-10	2.3E-10	2.3E-10	2.3E-10	2.3E-10	2.3E-10	2.4E-10

Dose coefficients (Sv/Bq) for the offspring from mothers' milk  
following intake of K-42 (T½ = 12.4 h) by the mother

Scenario*	Testes	Ovaries	Brain	R.B.M.	Thyroid	Bone sur	Liver	Kidneys	Spleen	Remainder	Effective
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type F fl = 1.0											
-130	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-26	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
conception	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+10	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+15	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+25	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+35	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
birth	2.4E-13	2.5E-13	2.4E-13	2.4E-13	2.4E-13	2.4E-13	2.5E-13	2.4E-13	2.5E-13	2.4E-13	5.4E-13
birth+1	3.2E-12	3.4E-12	3.2E-12	3.2E-12	3.2E-12	3.2E-12	3.4E-12	3.2E-12	3.4E-12	3.2E-12	7.1E-12
birth+5	3.2E-12	3.4E-12	3.2E-12	3.2E-12	3.2E-12	3.2E-12	3.4E-12	3.2E-12	3.4E-12	3.2E-12	7.1E-12
birth+10	3.2E-12	3.4E-12	3.2E-12	3.2E-12	3.2E-12	3.2E-12	3.4E-12	3.2E-12	3.4E-12	3.2E-12	7.1E-12
birth+15	3.2E-12	3.4E-12	3.2E-12	3.2E-12	3.2E-12	3.2E-12	3.4E-12	3.2E-12	3.4E-12	3.2E-12	7.1E-12
birth+20	3.2E-12	3.4E-12	3.2E-12	3.2E-12	3.2E-12	3.2E-12	3.4E-12	3.2E-12	3.4E-12	3.2E-12	7.1E-12
-260	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-52	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
conception	6.7E-16	7.0E-16	6.7E-16	6.7E-16	6.7E-16	6.7E-16	7.0E-16	6.7E-16	7.0E-16	6.7E-16	1.5E-15
lactation	3.2E-12	3.3E-12	3.2E-12	3.2E-12	3.2E-12	3.2E-12	3.3E-12	3.2E-12	3.3E-12	3.2E-12	7.1E-12
Ingestion: fl = 1.0											
-130	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-26	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
conception	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+10	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+15	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+25	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+35	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
birth	5.0E-13	5.3E-13	5.0E-13	5.0E-13	5.0E-13	5.0E-13	5.3E-13	5.0E-13	5.3E-13	5.0E-13	1.1E-12
birth+1	6.5E-12	6.8E-12	6.5E-12	6.5E-12	6.5E-12	6.5E-12	6.8E-12	6.5E-12	6.8E-12	6.5E-12	1.4E-11
birth+5	6.5E-12	6.8E-12	6.5E-12	6.5E-12	6.5E-12	6.5E-12	6.8E-12	6.5E-12	6.8E-12	6.5E-12	1.4E-11
birth+10	6.5E-12	6.8E-12	6.5E-12	6.5E-12	6.5E-12	6.5E-12	6.8E-12	6.5E-12	6.8E-12	6.5E-12	1.4E-11
birth+15	6.5E-12	6.8E-12	6.5E-12	6.5E-12	6.5E-12	6.5E-12	6.8E-12	6.5E-12	6.8E-12	6.5E-12	1.4E-11
birth+20	6.5E-12	6.8E-12	6.5E-12	6.5E-12	6.5E-12	6.5E-12	6.8E-12	6.5E-12	6.8E-12	6.5E-12	1.4E-11
-260	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-52	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
conception	1.4E-15	1.4E-15	1.4E-15	1.4E-15	1.4E-15	1.4E-15	1.4E-15	1.4E-15	1.4E-15	1.4E-15	3.1E-15
lactation	6.4E-12	6.7E-12	6.4E-12	6.4E-12	6.4E-12	6.4E-12	6.7E-12	6.4E-12	6.7E-12	6.4E-12	1.4E-11

Dose coefficients (Sv/Bq) for the offspring from mothers' milk  
following intake of K-43 (T½ = 22.6 h) by the mother

Scenario*	Testes	Ovaries	Brain	R.B.M.	Thyroid	Bone sur	Liver	Kidneys	Spleen	Remainder	Effective
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type F fl = 1.0											
-130	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-26	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
conception	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+10	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+15	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+25	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+35	5.8E-20	6.6E-20	5.8E-20	5.8E-20	6.6E-20	6.2E-20	6.6E-20	6.2E-20	6.6E-20	6.2E-20	9.5E-20
birth	6.2E-13	7.1E-13	6.2E-13	6.2E-13	7.1E-13	6.7E-13	7.1E-13	6.7E-13	7.1E-13	6.7E-13	1.0E-12
birth+1	3.8E-12	4.3E-12	3.8E-12	3.8E-12	4.3E-12	4.0E-12	4.3E-12	4.0E-12	4.3E-12	4.0E-12	6.2E-12
birth+5	3.8E-12	4.3E-12	3.8E-12	3.8E-12	4.3E-12	4.0E-12	4.3E-12	4.0E-12	4.3E-12	4.0E-12	6.2E-12
birth+10	3.8E-12	4.3E-12	3.8E-12	3.8E-12	4.3E-12	4.0E-12	4.3E-12	4.0E-12	4.3E-12	4.0E-12	6.2E-12
birth+15	3.8E-12	4.3E-12	3.8E-12	3.8E-12	4.3E-12	4.0E-12	4.3E-12	4.0E-12	4.3E-12	4.0E-12	6.2E-12
birth+20	3.8E-12	4.3E-12	3.8E-12	3.8E-12	4.3E-12	4.0E-12	4.3E-12	4.0E-12	4.3E-12	4.0E-12	6.2E-12
-260	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-52	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
conception	3.1E-15	3.5E-15	3.1E-15	3.1E-15	3.5E-15	3.3E-15	3.5E-15	3.3E-15	3.5E-15	3.3E-15	5.1E-15
lactation	3.7E-12	4.3E-12	3.7E-12	3.7E-12	4.3E-12	4.0E-12	4.3E-12	4.0E-12	4.3E-12	4.0E-12	6.1E-12
Ingestion: fl = 1.0											
-130	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-26	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
conception	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+10	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+15	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+25	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+35	1.3E-19	1.5E-19	1.3E-19	1.3E-19	1.5E-19	1.4E-19	1.5E-19	1.4E-19	1.5E-19	1.4E-19	2.1E-19
birth	1.3E-12	1.5E-12	1.3E-12	1.3E-12	1.5E-12	1.4E-12	1.5E-12	1.4E-12	1.5E-12	1.4E-12	2.1E-12
birth+1	7.7E-12	8.8E-12	7.7E-12	7.7E-12	8.8E-12	8.2E-12	8.8E-12	8.2E-12	8.8E-12	8.2E-12	1.3E-11
birth+5	7.7E-12	8.8E-12	7.7E-12	7.7E-12	8.8E-12	8.2E-12	8.8E-12	8.2E-12	8.8E-12	8.2E-12	1.3E-11
birth+10	7.7E-12	8.8E-12	7.7E-12	7.7E-12	8.8E-12	8.2E-12	8.8E-12	8.2E-12	8.8E-12	8.2E-12	1.3E-11
birth+15	7.7E-12	8.8E-12	7.7E-12	7.7E-12	8.8E-12	8.2E-12	8.8E-12	8.2E-12	8.8E-12	8.2E-12	1.3E-11
birth+20	7.7E-12	8.8E-12	7.7E-12	7.7E-12	8.8E-12	8.2E-12	8.8E-12	8.2E-12	8.8E-12	8.2E-12	1.3E-11
-260	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-52	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
conception	6.4E-15	7.3E-15	6.4E-15	6.4E-15	7.3E-15	6.9E-15	7.3E-15	6.9E-15	7.3E-15	6.9E-15	1.1E-14
lactation	7.6E-12	8.7E-12	7.6E-12	7.6E-12	8.7E-12	8.2E-12	8.7E-12	8.2E-12	8.7E-12	8.2E-12	1.3E-11



Dose coefficients (Sv/Bq) for the offspring from mothers' milk  
following intake of Ca-45 (T½ = 163 d) by the mother

Scenario*	Testes	Ovaries	Brain	R.B.M.	Thyroid	Bone sur	Liver	Kidneys	Spleen	Remainder	Effective
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type M fl = 0.3											
-130	2.7E-15	2.7E-15	2.7E-15	3.7E-13	2.7E-15	8.0E-13	2.7E-15	2.7E-15	2.7E-15	2.8E-15	6.3E-14
-26	1.6E-13	1.6E-13	1.6E-13	2.2E-11	1.6E-13	4.8E-11	1.6E-13	1.6E-13	1.6E-13	1.7E-13	3.8E-12
conception	6.9E-13	6.9E-13	6.9E-13	9.3E-11	6.9E-13	2.0E-10	6.9E-13	6.9E-13	6.9E-13	7.0E-13	1.6E-11
+5	9.8E-13	9.8E-13	9.8E-13	1.3E-10	9.8E-13	2.8E-10	9.8E-13	9.8E-13	9.8E-13	1.0E-12	2.2E-11
+10	1.4E-12	1.4E-12	1.4E-12	1.9E-10	1.4E-12	4.0E-10	1.4E-12	1.4E-12	1.4E-12	1.4E-12	3.2E-11
+15	2.0E-12	2.0E-12	2.0E-12	2.7E-10	2.0E-12	5.9E-10	2.0E-12	2.0E-12	2.0E-12	2.1E-12	4.6E-11
+25	4.4E-12	4.4E-12	4.4E-12	6.0E-10	4.4E-12	1.3E-09	4.4E-12	4.4E-12	4.4E-12	4.5E-12	1.0E-10
+35	1.6E-11	1.6E-11	1.6E-11	2.1E-09	1.6E-11	4.6E-09	1.6E-11	1.6E-11	1.6E-11	1.6E-11	3.6E-10
birth	4.9E-11	4.9E-11	4.9E-11	6.6E-09	4.9E-11	1.4E-08	4.9E-11	4.9E-11	4.9E-11	5.0E-11	1.1E-09
birth+1	4.2E-11	4.2E-11	4.2E-11	5.7E-09	4.2E-11	1.2E-08	4.2E-11	4.2E-11	4.2E-11	4.3E-11	9.7E-10
birth+5	4.2E-11	4.2E-11	4.2E-11	5.7E-09	4.2E-11	1.2E-08	4.2E-11	4.2E-11	4.2E-11	4.3E-11	9.6E-10
birth+10	4.1E-11	4.1E-11	4.1E-11	5.6E-09	4.1E-11	1.2E-08	4.1E-11	4.1E-11	4.1E-11	4.2E-11	9.5E-10
birth+15	4.0E-11	4.0E-11	4.0E-11	5.5E-09	4.0E-11	1.2E-08	4.0E-11	4.0E-11	4.0E-11	4.1E-11	9.2E-10
birth+20	3.9E-11	3.9E-11	3.9E-11	5.2E-09	3.9E-11	1.1E-08	3.9E-11	3.9E-11	3.9E-11	3.9E-11	8.8E-10
-260	5.0E-14	5.0E-14	5.0E-14	6.8E-12	5.0E-14	1.5E-11	5.0E-14	5.0E-14	5.0E-14	5.1E-14	1.2E-12
-52	2.3E-13	2.3E-13	2.3E-13	3.1E-11	2.3E-13	6.6E-11	2.3E-13	2.3E-13	2.3E-13	2.3E-13	5.2E-12
conception	5.5E-12	5.5E-12	5.5E-12	7.4E-10	5.5E-12	1.6E-09	5.5E-12	5.5E-12	5.5E-12	5.6E-12	1.3E-10
lactation	4.0E-11	4.0E-11	4.0E-11	5.4E-09	4.0E-11	1.2E-08	4.0E-11	4.0E-11	4.0E-11	4.1E-11	9.2E-10
Ingestion: fl = 0.3											
-130	4.3E-15	4.3E-15	4.3E-15	5.9E-13	4.3E-15	1.3E-12	4.3E-15	4.3E-15	4.3E-15	4.4E-15	9.9E-14
-26	1.8E-13	1.8E-13	1.8E-13	2.5E-11	1.8E-13	5.4E-11	1.8E-13	1.8E-13	1.8E-13	1.9E-13	4.2E-12
conception	6.6E-13	6.6E-13	6.6E-13	9.0E-11	6.6E-13	1.9E-10	6.6E-13	6.6E-13	6.6E-13	6.8E-13	1.5E-11
+5	9.9E-13	9.9E-13	9.9E-13	1.3E-10	9.9E-13	2.9E-10	9.9E-13	9.9E-13	9.9E-13	1.0E-12	2.3E-11
+10	1.5E-12	1.5E-12	1.5E-12	2.0E-10	1.5E-12	4.2E-10	1.5E-12	1.5E-12	1.5E-12	1.5E-12	3.3E-11
+15	2.3E-12	2.3E-12	2.3E-12	3.1E-10	2.3E-12	6.6E-10	2.3E-12	2.3E-12	2.3E-12	2.3E-12	5.2E-11
+25	5.5E-12	5.5E-12	5.5E-12	7.5E-10	5.5E-12	1.6E-09	5.5E-12	5.5E-12	5.5E-12	5.7E-12	1.3E-10
+35	2.5E-11	2.5E-11	2.5E-11	3.4E-09	2.5E-11	7.4E-09	2.5E-11	2.5E-11	2.5E-11	2.6E-11	5.8E-10
birth	9.7E-11	9.7E-11	9.7E-11	1.3E-08	9.7E-11	2.8E-08	9.7E-11	9.7E-11	9.7E-11	9.9E-11	2.2E-09
birth+1	7.5E-11	7.5E-11	7.5E-11	1.0E-08	7.5E-11	2.2E-08	7.5E-11	7.5E-11	7.5E-11	7.7E-11	1.7E-09
birth+5	7.5E-11	7.5E-11	7.5E-11	1.0E-08	7.5E-11	2.2E-08	7.5E-11	7.5E-11	7.5E-11	7.7E-11	1.7E-09
birth+10	7.5E-11	7.5E-11	7.5E-11	1.0E-08	7.5E-11	2.2E-08	7.5E-11	7.5E-11	7.5E-11	7.6E-11	1.7E-09
birth+15	7.4E-11	7.4E-11	7.4E-11	1.0E-08	7.4E-11	2.2E-08	7.4E-11	7.4E-11	7.4E-11	7.6E-11	1.7E-09
birth+20	7.3E-11	7.3E-11	7.3E-11	9.9E-09	7.3E-11	2.1E-08	7.3E-11	7.3E-11	7.3E-11	7.5E-11	1.7E-09
-260	5.5E-14	5.5E-14	5.5E-14	7.4E-12	5.5E-14	1.6E-11	5.5E-14	5.5E-14	5.5E-14	5.6E-14	1.3E-12
-52	2.4E-13	2.4E-13	2.4E-13	3.2E-11	2.4E-13	7.0E-11	2.4E-13	2.4E-13	2.4E-13	2.4E-13	5.5E-12
conception	8.1E-12	8.1E-12	8.1E-12	1.1E-09	8.1E-12	2.4E-09	8.1E-12	8.1E-12	8.1E-12	8.3E-12	1.9E-10
lactation	7.4E-11	7.4E-11	7.4E-11	1.0E-08	7.4E-11	2.2E-08	7.4E-11	7.4E-11	7.4E-11	7.6E-11	1.7E-09

Dose coefficients (Sv/Bq) for the offspring from mothers' milk  
following intake of Ca-47 (T½ = 4.53 d) by the mother

Scenario*	Testes	Ovaries	Brain	R.B.M.	Thyroid	Bone sur	Liver	Kidneys	Spleen	Remainder	Effective
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type M fl = 0.3											
-130	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-26	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
conception	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+10	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+15	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+25	1.9E-18	5.6E-18	1.8E-18	2.0E-17	1.5E-18	3.3E-17	2.3E-18	2.5E-18	2.4E-18	2.6E-18	3.0E-17
+35	5.7E-13	1.6E-12	5.6E-13	6.1E-12	4.6E-13	1.0E-11	6.7E-13	7.5E-13	7.1E-13	7.5E-13	7.9E-12
birth	6.4E-11	1.5E-10	6.7E-11	7.4E-10	5.5E-11	1.2E-09	7.3E-11	8.5E-11	7.7E-11	8.1E-11	5.6E-10
birth+1	9.9E-11	2.3E-10	1.1E-10	1.2E-09	8.8E-11	1.9E-09	1.1E-10	1.3E-10	1.2E-10	1.2E-10	7.4E-10
birth+5	9.9E-11	2.3E-10	1.1E-10	1.2E-09	8.8E-11	1.9E-09	1.1E-10	1.3E-10	1.2E-10	1.2E-10	7.4E-10
birth+10	9.9E-11	2.3E-10	1.1E-10	1.2E-09	8.8E-11	1.9E-09	1.1E-10	1.3E-10	1.2E-10	1.2E-10	7.4E-10
birth+15	9.9E-11	2.3E-10	1.1E-10	1.2E-09	8.8E-11	1.9E-09	1.1E-10	1.3E-10	1.2E-10	1.2E-10	7.4E-10
birth+20	9.9E-11	2.3E-10	1.1E-10	1.2E-09	8.8E-11	1.9E-09	1.1E-10	1.3E-10	1.2E-10	1.2E-10	7.4E-10
-260	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-52	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
conception	9.5E-13	2.4E-12	9.8E-13	1.1E-11	8.0E-13	1.7E-11	1.1E-12	1.3E-12	1.2E-12	1.2E-12	9.9E-12
lactation	9.9E-11	2.3E-10	1.1E-10	1.2E-09	8.8E-11	1.9E-09	1.1E-10	1.3E-10	1.2E-10	1.2E-10	7.4E-10
Ingestion: fl = 0.3											
-130	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-26	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
conception	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+10	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+15	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+25	2.3E-18	6.6E-18	2.2E-18	2.4E-17	1.8E-18	3.9E-17	2.7E-18	3.0E-18	2.9E-18	3.0E-18	3.5E-17
+35	1.1E-12	3.0E-12	1.1E-12	1.2E-11	8.8E-13	1.9E-11	1.3E-12	1.4E-12	1.4E-12	1.4E-12	1.5E-11
birth	1.4E-10	3.4E-10	1.5E-10	1.6E-09	1.2E-10	2.6E-09	1.6E-10	1.9E-10	1.7E-10	1.8E-10	1.2E-09
birth+1	2.0E-10	4.6E-10	2.1E-10	2.3E-09	1.8E-10	3.8E-09	2.3E-10	2.7E-10	2.4E-10	2.5E-10	1.5E-09
birth+5	2.0E-10	4.6E-10	2.1E-10	2.3E-09	1.8E-10	3.8E-09	2.3E-10	2.7E-10	2.4E-10	2.5E-10	1.5E-09
birth+10	2.0E-10	4.6E-10	2.1E-10	2.3E-09	1.8E-10	3.8E-09	2.3E-10	2.7E-10	2.4E-10	2.5E-10	1.5E-09
birth+15	2.0E-10	4.6E-10	2.1E-10	2.3E-09	1.8E-10	3.8E-09	2.3E-10	2.7E-10	2.4E-10	2.5E-10	1.5E-09
birth+20	2.0E-10	4.6E-10	2.1E-10	2.3E-09	1.8E-10	3.8E-09	2.3E-10	2.7E-10	2.4E-10	2.5E-10	1.5E-09
-260	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-52	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
conception	2.0E-12	5.1E-12	2.1E-12	2.3E-11	1.7E-12	3.7E-11	2.3E-12	2.7E-12	2.5E-12	2.6E-12	2.1E-11
lactation	2.0E-10	4.6E-10	2.2E-10	2.4E-09	1.8E-10	3.8E-09	2.3E-10	2.7E-10	2.4E-10	2.5E-10	1.5E-09

Dose coefficients (Sv/Bq) for the offspring from mothers' milk  
following intake of Fe-55 (T½ = 2.70 y) by the mother

Scenario*	Testes	Ovaries	Brain	R.B.M.	Thyroid	Bone sur	Liver	Kidneys	Spleen	Remainder	Effective
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type F fl = 0.1											
-130	1.3E-12	1.3E-12	1.3E-12	1.3E-11	1.3E-12	1.1E-11	8.1E-12	1.3E-12	2.5E-11	1.3E-11	3.8E-12
-26	2.8E-12	2.8E-12	2.8E-12	2.8E-11	2.8E-12	2.3E-11	1.7E-11	2.8E-12	5.5E-11	2.8E-11	8.3E-12
conception	3.7E-12	3.7E-12	3.7E-12	3.7E-11	3.7E-12	3.0E-11	2.3E-11	3.7E-12	7.0E-11	3.7E-11	1.1E-11
+5	3.9E-12	3.9E-12	3.9E-12	3.9E-11	3.9E-12	3.1E-11	2.4E-11	3.9E-12	7.4E-11	3.9E-11	1.1E-11
+10	4.1E-12	4.1E-12	4.1E-12	4.1E-11	4.1E-12	3.3E-11	2.5E-11	4.1E-12	7.8E-11	4.1E-11	1.2E-11
+15	4.4E-12	4.4E-12	4.4E-12	4.4E-11	4.4E-12	3.6E-11	2.7E-11	4.4E-12	8.5E-11	4.4E-11	1.3E-11
+25	5.4E-12	5.4E-12	5.4E-12	5.4E-11	5.4E-12	4.4E-11	3.4E-11	5.4E-12	1.0E-10	5.4E-11	1.6E-11
+35	6.5E-12	6.5E-12	6.5E-12	6.5E-11	6.5E-12	5.2E-11	4.0E-11	6.5E-12	1.2E-10	6.5E-11	1.9E-11
birth	7.5E-12	7.5E-12	7.5E-12	7.5E-11	7.5E-12	6.0E-11	4.6E-11	7.5E-12	1.4E-10	7.5E-11	2.2E-11
birth+1	1.2E-11	1.2E-11	1.2E-11	1.2E-10	1.2E-11	9.3E-11	7.1E-11	1.2E-11	2.2E-10	1.2E-10	3.4E-11
birth+5	1.1E-11	1.1E-11	1.1E-11	1.1E-10	1.1E-11	8.7E-11	6.6E-11	1.1E-11	2.1E-10	1.1E-10	3.1E-11
birth+10	9.6E-12	9.6E-12	9.6E-12	9.6E-11	9.6E-12	7.8E-11	5.9E-11	9.6E-12	1.9E-10	9.6E-11	2.8E-11
birth+15	8.4E-12	8.4E-12	8.4E-12	8.4E-11	8.4E-12	6.8E-11	5.2E-11	8.4E-12	1.6E-10	8.4E-11	2.5E-11
birth+20	7.2E-12	7.2E-12	7.2E-12	7.2E-11	7.2E-12	5.8E-11	4.4E-11	7.2E-12	1.4E-10	7.2E-11	2.1E-11
-260	1.5E-12	1.5E-12	1.5E-12	1.5E-11	1.5E-12	1.3E-11	9.5E-12	1.5E-12	3.0E-11	1.5E-11	4.5E-12
-52	2.9E-12	2.9E-12	2.9E-12	2.9E-11	2.9E-12	2.3E-11	1.8E-11	2.9E-12	5.6E-11	2.9E-11	8.5E-12
conception	5.0E-12	5.0E-12	5.0E-12	5.0E-11	5.0E-12	4.0E-11	3.1E-11	5.0E-12	9.5E-11	5.0E-11	1.4E-11
lactation	8.8E-12	8.8E-12	8.8E-12	8.8E-11	8.8E-12	7.1E-11	5.4E-11	8.8E-12	1.7E-10	8.8E-11	2.6E-11
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type M fl = 0.1											
-130	4.5E-13	4.5E-13	4.5E-13	4.5E-12	4.5E-13	3.6E-12	2.8E-12	4.5E-13	8.7E-12	4.5E-12	1.3E-12
-26	1.0E-12	1.0E-12	1.0E-12	1.0E-11	1.0E-12	8.0E-12	6.1E-12	1.0E-12	1.9E-11	1.0E-11	2.9E-12
conception	1.3E-12	1.3E-12	1.3E-12	1.3E-11	1.3E-12	1.0E-11	7.9E-12	1.3E-12	2.5E-11	1.3E-11	3.7E-12
+5	1.3E-12	1.3E-12	1.3E-12	1.3E-11	1.3E-12	1.1E-11	8.3E-12	1.3E-12	2.6E-11	1.3E-11	3.9E-12
+10	1.4E-12	1.4E-12	1.4E-12	1.4E-11	1.4E-12	1.1E-11	8.7E-12	1.4E-12	2.7E-11	1.4E-11	4.1E-12
+15	1.5E-12	1.5E-12	1.5E-12	1.5E-11	1.5E-12	1.2E-11	9.2E-12	1.5E-12	2.9E-11	1.5E-11	4.4E-12
+25	1.7E-12	1.7E-12	1.7E-12	1.7E-11	1.7E-12	1.3E-11	1.0E-11	1.7E-12	3.2E-11	1.7E-11	4.9E-12
+35	1.9E-12	1.9E-12	1.9E-12	1.9E-11	1.9E-12	1.5E-11	1.2E-11	1.9E-12	3.6E-11	1.9E-11	5.5E-12
birth	2.1E-12	2.1E-12	2.1E-12	2.1E-11	2.1E-12	1.7E-11	1.3E-11	2.1E-12	4.1E-11	2.1E-11	6.2E-12
birth+1	3.1E-12	3.1E-12	3.1E-12	3.1E-11	3.1E-12	2.5E-11	1.9E-11	3.1E-12	6.0E-11	3.1E-11	9.1E-12
birth+5	2.9E-12	2.9E-12	2.9E-12	2.9E-11	2.9E-12	2.3E-11	1.8E-11	2.9E-12	5.5E-11	2.9E-11	8.4E-12
birth+10	2.5E-12	2.5E-12	2.5E-12	2.5E-11	2.5E-12	2.0E-11	1.5E-11	2.5E-12	4.8E-11	2.5E-11	7.3E-12
birth+15	2.1E-12	2.1E-12	2.1E-12	2.1E-11	2.1E-12	1.7E-11	1.3E-11	2.1E-12	4.1E-11	2.1E-11	6.2E-12
birth+20	1.7E-12	1.7E-12	1.7E-12	1.7E-11	1.7E-12	1.4E-11	1.1E-11	1.7E-12	3.3E-11	1.7E-11	5.0E-12
-260	5.4E-13	5.4E-13	5.4E-13	5.4E-12	5.4E-13	4.3E-12	3.3E-12	5.4E-13	1.0E-11	5.4E-12	1.6E-12
-52	1.0E-12	1.0E-12	1.0E-12	1.0E-11	1.0E-12	8.2E-12	6.2E-12	1.0E-12	2.0E-11	1.0E-11	3.0E-12
conception	1.6E-12	1.6E-12	1.6E-12	1.6E-11	1.6E-12	1.3E-11	9.7E-12	1.6E-12	3.0E-11	1.6E-11	4.6E-12
lactation	2.2E-12	2.2E-12	2.2E-12	2.2E-11	2.2E-12	1.8E-11	1.4E-11	2.2E-12	4.3E-11	2.2E-11	6.6E-12
Ingestion: fl = 0.1											
-130	4.4E-13	4.4E-13	4.4E-13	4.4E-12	4.4E-13	3.5E-12	2.7E-12	4.4E-13	8.4E-12	4.4E-12	1.3E-12
-26	9.5E-13	9.5E-13	9.5E-13	9.5E-12	9.5E-13	7.7E-12	5.9E-12	9.5E-13	1.8E-11	9.5E-12	2.8E-12
conception	1.2E-12	1.2E-12	1.2E-12	1.2E-11	1.2E-12	9.9E-12	7.5E-12	1.2E-12	2.4E-11	1.2E-11	3.6E-12
+5	1.3E-12	1.3E-12	1.3E-12	1.3E-11	1.3E-12	1.0E-11	7.9E-12	1.3E-12	2.5E-11	1.3E-11	3.8E-12
+10	1.4E-12	1.4E-12	1.4E-12	1.4E-11	1.4E-12	1.1E-11	8.4E-12	1.4E-12	2.6E-11	1.4E-11	4.0E-12
+15	2.0E-12	2.0E-12	2.0E-12	2.0E-11	2.0E-12	1.6E-11	1.2E-11	2.0E-12	3.9E-11	2.0E-11	5.9E-12
+25	4.7E-12	4.7E-12	4.7E-12	4.7E-11	4.7E-12	3.8E-11	2.9E-11	4.7E-12	9.1E-11	4.7E-11	1.4E-11
+35	6.9E-12	6.9E-12	6.9E-12	6.9E-11	6.9E-12	5.6E-11	4.3E-11	6.9E-12	1.3E-10	6.9E-11	2.0E-11
birth	8.4E-12	8.4E-12	8.4E-12	8.4E-11	8.4E-12	6.8E-11	5.2E-11	8.4E-12	1.6E-10	8.4E-11	2.5E-11
birth+1	7.2E-12	7.2E-12	7.2E-12	7.2E-11	7.2E-12	5.9E-11	4.5E-11	7.2E-12	1.4E-10	7.2E-11	2.1E-11
birth+5	6.7E-12	6.7E-12	6.7E-12	6.7E-11	6.7E-12	5.4E-11	4.1E-11	6.7E-12	1.3E-10	6.7E-11	2.0E-11
birth+10	6.0E-12	6.0E-12	6.0E-12	6.0E-11	6.0E-12	4.9E-11	3.7E-11	6.0E-12	1.2E-10	6.0E-11	1.8E-11
birth+15	5.3E-12	5.3E-12	5.3E-12	5.3E-11	5.3E-12	4.3E-11	3.3E-11	5.3E-12	1.0E-10	5.3E-11	1.5E-11
birth+20	4.5E-12	4.5E-12	4.5E-12	4.5E-11	4.5E-12	3.6E-11	2.8E-11	4.5E-12	8.7E-11	4.5E-11	1.3E-11
-260	5.2E-13	5.2E-13	5.2E-13	5.2E-12	5.2E-13	4.2E-12	3.2E-12	5.2E-13	1.0E-11	5.2E-12	1.5E-12
-52	9.7E-13	9.7E-13	9.7E-13	9.7E-12	9.7E-13	7.9E-12	6.0E-12	9.7E-13	1.9E-11	9.7E-12	2.8E-12
conception	3.5E-12	3.5E-12	3.5E-12	3.5E-11	3.5E-12	2.8E-11	2.2E-11	3.5E-12	6.8E-11	3.5E-11	1.0E-11
lactation	5.6E-12	5.6E-12	5.6E-12	5.6E-11	5.6E-12	4.6E-11	3.5E-11	5.6E-12	1.1E-10	5.6E-11	1.6E-11

Dose coefficients (Sv/Bq) for the offspring from mothers' milk  
following intake of Fe-59 (T½ = 44.5 d) by the mother

Scenario*	Testes	Ovaries	Brain	R.B.M.	Thyroid	Bone sur	Liver	Kidneys	Spleen	Remainder	Effective
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type F fl = 0.1											
-130	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-26	9.6E-15	1.3E-14	9.6E-15	3.6E-14	1.1E-14	3.6E-14	3.7E-14	1.3E-14	6.2E-14	3.6E-14	1.9E-14
conception	1.9E-13	2.6E-13	1.9E-13	7.1E-13	2.2E-13	7.0E-13	7.3E-13	2.6E-13	1.2E-12	7.2E-13	3.7E-13
+5	3.3E-13	4.7E-13	3.3E-13	1.3E-12	3.8E-13	1.2E-12	1.3E-12	4.7E-13	2.2E-12	1.3E-12	6.5E-13
+10	5.9E-13	8.3E-13	5.9E-13	2.2E-12	6.8E-13	2.2E-12	2.3E-12	8.3E-13	3.9E-12	2.3E-12	1.2E-12
+15	1.1E-12	1.5E-12	1.1E-12	4.1E-12	1.3E-12	4.0E-12	4.2E-12	1.5E-12	7.1E-12	4.1E-12	2.1E-12
+25	3.8E-12	5.3E-12	3.8E-12	1.4E-11	4.4E-12	1.4E-11	1.5E-11	5.3E-12	2.5E-11	1.5E-11	7.4E-12
+35	1.3E-11	1.8E-11	1.3E-11	4.9E-11	1.5E-11	4.8E-11	5.0E-11	1.8E-11	8.4E-11	4.9E-11	2.5E-11
birth	2.3E-11	3.2E-11	2.3E-11	8.7E-11	2.7E-11	8.6E-11	9.0E-11	3.2E-11	1.5E-10	8.8E-11	4.5E-11
birth+1	6.0E-11	8.3E-11	6.0E-11	2.2E-10	6.9E-11	2.2E-10	2.3E-10	8.3E-11	3.9E-10	2.3E-10	1.2E-10
birth+5	5.9E-11	8.3E-11	5.9E-11	2.2E-10	6.8E-11	2.2E-10	2.3E-10	8.3E-11	3.8E-10	2.2E-10	1.2E-10
birth+10	5.8E-11	8.1E-11	5.8E-11	2.2E-10	6.7E-11	2.1E-10	2.3E-10	8.1E-11	3.8E-10	2.2E-10	1.1E-10
birth+15	5.6E-11	7.8E-11	5.6E-11	2.1E-10	6.4E-11	2.1E-10	2.2E-10	7.8E-11	3.6E-10	2.1E-10	1.1E-10
birth+20	5.2E-11	7.2E-11	5.2E-11	1.9E-10	5.9E-11	1.9E-10	2.0E-10	7.2E-11	3.4E-10	2.0E-10	1.0E-10
-260	6.3E-15	8.9E-15	6.3E-15	2.4E-14	7.3E-15	2.3E-14	2.5E-14	8.9E-15	4.1E-14	2.4E-14	1.2E-14
-52	3.2E-14	4.4E-14	3.2E-14	1.2E-13	3.6E-14	1.2E-13	1.2E-13	4.4E-14	2.1E-13	1.2E-13	6.2E-14
conception	4.0E-12	5.6E-12	4.0E-12	1.5E-11	4.6E-12	1.5E-11	1.6E-11	5.6E-12	2.6E-11	1.5E-11	7.8E-12
lactation	5.5E-11	7.7E-11	5.5E-11	2.1E-10	6.3E-11	2.0E-10	2.1E-10	7.7E-11	3.6E-10	2.1E-10	1.1E-10
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type M fl = 0.1											
-130	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-26	3.4E-15	4.7E-15	3.4E-15	1.3E-14	3.9E-15	1.2E-14	1.3E-14	4.7E-15	2.2E-14	1.3E-14	6.6E-15
conception	6.6E-14	9.2E-14	6.6E-14	2.5E-13	7.6E-14	2.4E-13	2.6E-13	9.2E-14	4.3E-13	2.5E-13	1.3E-13
+5	1.2E-13	1.6E-13	1.2E-13	4.4E-13	1.3E-13	4.3E-13	4.6E-13	1.6E-13	7.6E-13	4.4E-13	2.3E-13
+10	2.1E-13	2.9E-13	2.1E-13	7.8E-13	2.4E-13	7.7E-13	8.1E-13	2.9E-13	1.3E-12	7.9E-13	4.0E-13
+15	3.7E-13	5.1E-13	3.7E-13	1.4E-12	4.2E-13	1.4E-12	1.4E-12	5.1E-13	2.4E-12	1.4E-12	7.2E-13
+25	1.2E-12	1.6E-12	1.2E-12	4.4E-12	1.3E-12	4.3E-12	4.5E-12	1.6E-12	7.6E-12	4.4E-12	2.3E-12
+35	3.8E-12	5.3E-12	3.8E-12	1.4E-11	4.3E-12	1.4E-11	1.5E-11	5.3E-12	2.5E-11	1.4E-11	7.4E-12
birth	6.4E-12	9.0E-12	6.4E-12	2.4E-11	7.4E-12	2.4E-11	2.5E-11	9.0E-12	4.2E-11	2.4E-11	1.3E-11
birth+1	1.5E-11	2.1E-11	1.5E-11	5.5E-11	1.7E-11	5.4E-11	5.7E-11	2.1E-11	9.5E-11	5.6E-11	2.9E-11
birth+5	1.4E-11	2.0E-11	1.4E-11	5.4E-11	1.7E-11	5.4E-11	5.7E-11	2.0E-11	9.4E-11	5.5E-11	2.8E-11
birth+10	1.4E-11	2.0E-11	1.4E-11	5.3E-11	1.6E-11	5.2E-11	5.5E-11	2.0E-11	9.2E-11	5.4E-11	2.7E-11
birth+15	1.3E-11	1.9E-11	1.3E-11	5.0E-11	1.5E-11	4.9E-11	5.2E-11	1.9E-11	8.7E-11	5.1E-11	2.6E-11
birth+20	1.2E-11	1.7E-11	1.2E-11	4.5E-11	1.4E-11	4.5E-11	4.7E-11	1.7E-11	7.8E-11	4.6E-11	2.4E-11
-260	2.2E-15	3.1E-15	2.2E-15	8.3E-15	2.6E-15	8.2E-15	8.7E-15	3.1E-15	1.4E-14	8.4E-15	4.3E-15
-52	1.1E-14	1.5E-14	1.1E-14	4.1E-14	1.3E-14	4.1E-14	4.3E-14	1.5E-14	7.2E-14	4.2E-14	2.2E-14
conception	1.2E-12	1.7E-12	1.2E-12	4.5E-12	1.4E-12	4.4E-12	4.7E-12	1.7E-12	7.8E-12	4.6E-12	2.3E-12
lactation	1.3E-11	1.8E-11	1.3E-11	4.9E-11	1.5E-11	4.8E-11	5.1E-11	1.8E-11	8.5E-11	5.0E-11	2.6E-11
Ingestion: fl = 0.1											
-130	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-26	3.2E-15	4.5E-15	3.2E-15	1.2E-14	3.7E-15	1.2E-14	1.3E-14	4.5E-15	2.1E-14	1.2E-14	6.3E-15
conception	6.3E-14	8.8E-14	6.3E-14	2.4E-13	7.3E-14	2.3E-13	2.5E-13	8.8E-14	4.1E-13	2.4E-13	1.2E-13
+5	1.1E-13	1.6E-13	1.1E-13	4.2E-13	1.3E-13	4.1E-13	4.4E-13	1.6E-13	7.3E-13	4.3E-13	2.2E-13
+10	2.0E-13	2.8E-13	2.0E-13	7.5E-13	2.3E-13	7.4E-13	7.8E-13	2.8E-13	1.3E-12	7.6E-13	3.9E-13
+15	5.0E-13	7.0E-13	5.0E-13	1.9E-12	5.8E-13	1.9E-12	2.0E-12	7.0E-13	3.3E-12	1.9E-12	9.8E-13
+25	3.3E-12	4.6E-12	3.3E-12	1.2E-11	3.8E-12	1.2E-11	1.3E-11	4.6E-12	2.1E-11	1.3E-11	6.4E-12
+35	1.4E-11	1.9E-11	1.4E-11	5.2E-11	1.6E-11	5.1E-11	5.4E-11	1.9E-11	9.0E-11	5.3E-11	2.7E-11
birth	2.6E-11	3.7E-11	2.6E-11	9.9E-11	3.0E-11	9.8E-11	1.0E-10	3.7E-11	1.7E-10	1.0E-10	5.2E-11
birth+1	3.7E-11	5.2E-11	3.7E-11	1.4E-10	4.3E-11	1.4E-10	1.5E-10	5.2E-11	2.4E-10	1.4E-10	7.3E-11
birth+5	3.7E-11	5.2E-11	3.7E-11	1.4E-10	4.3E-11	1.4E-10	1.4E-10	5.2E-11	2.4E-10	1.4E-10	7.2E-11
birth+10	3.6E-11	5.1E-11	3.6E-11	1.4E-10	4.2E-11	1.3E-10	1.4E-10	5.1E-11	2.4E-10	1.4E-10	7.1E-11
birth+15	3.5E-11	4.9E-11	3.5E-11	1.3E-10	4.0E-11	1.3E-10	1.4E-10	4.9E-11	2.3E-10	1.3E-10	6.8E-11
birth+20	3.2E-11	4.5E-11	3.2E-11	1.2E-10	3.7E-11	1.2E-10	1.3E-10	4.5E-11	2.1E-10	1.2E-10	6.3E-11
-260	2.1E-15	3.0E-15	2.1E-15	8.0E-15	2.4E-15	7.9E-15	8.3E-15	3.0E-15	1.4E-14	8.1E-15	4.1E-15
-52	1.1E-14	1.5E-14	1.1E-14	4.0E-14	1.2E-14	3.9E-14	4.1E-14	1.5E-14	6.9E-14	4.0E-14	2.1E-14
conception	3.8E-12	5.3E-12	3.8E-12	1.4E-11	4.4E-12	1.4E-11	1.5E-11	5.3E-12	2.5E-11	1.4E-11	7.4E-12
lactation	3.5E-11	4.9E-11	3.5E-11	1.3E-10	4.0E-11	1.3E-10	1.4E-10	4.9E-11	2.3E-10	1.3E-10	6.8E-11

Dose coefficients (Sv/Bq) for the offspring from mothers' milk  
following intake of Co-60 (T½ = 5.27 y) by the mother

Scenario*	Testes	Ovaries	Brain	R.B.M.	Thyroid	Bone sur	Liver	Kidneys	Spleen	Remainder	Effective
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type M fl = 0.1											
-130	5.9E-12	8.5E-12	5.9E-12	5.9E-12	7.2E-12	6.9E-12	1.4E-11	7.6E-12	7.2E-12	6.3E-12	7.8E-12
-26	3.2E-11	4.6E-11	3.2E-11	3.2E-11	3.9E-11	3.7E-11	7.7E-11	4.1E-11	3.9E-11	3.4E-11	4.2E-11
conception	7.5E-11	1.1E-10	7.5E-11	7.5E-11	9.2E-11	8.8E-11	1.8E-10	9.7E-11	9.2E-11	8.1E-11	9.9E-11
+5	9.1E-11	1.3E-10	9.1E-11	9.1E-11	1.1E-10	1.1E-10	2.2E-10	1.2E-10	1.1E-10	9.7E-11	1.2E-10
+10	1.1E-10	1.6E-10	1.1E-10	1.1E-10	1.3E-10	1.3E-10	2.7E-10	1.4E-10	1.3E-10	1.2E-10	1.5E-10
+15	1.4E-10	2.0E-10	1.4E-10	1.4E-10	1.7E-10	1.6E-10	3.3E-10	1.8E-10	1.7E-10	1.5E-10	1.8E-10
+25	2.1E-10	3.1E-10	2.1E-10	2.1E-10	2.6E-10	2.5E-10	5.1E-10	2.7E-10	2.6E-10	2.3E-10	2.8E-10
+35	3.9E-10	5.6E-10	3.9E-10	3.9E-10	4.7E-10	4.6E-10	9.4E-10	5.0E-10	4.7E-10	4.2E-10	5.1E-10
birth	7.6E-10	1.1E-09	7.6E-10	7.6E-10	9.3E-10	8.9E-10	1.8E-09	9.9E-10	9.3E-10	8.2E-10	1.0E-09
birth+1	1.4E-09	1.9E-09	1.4E-09	1.4E-09	1.6E-09	1.6E-09	3.3E-09	1.7E-09	1.6E-09	1.4E-09	1.8E-09
birth+5	1.2E-09	1.8E-09	1.2E-09	1.2E-09	1.5E-09	1.5E-09	3.0E-09	1.6E-09	1.5E-09	1.3E-09	1.6E-09
birth+10	1.2E-09	1.7E-09	1.2E-09	1.2E-09	1.5E-09	1.4E-09	2.9E-09	1.5E-09	1.5E-09	1.3E-09	1.6E-09
birth+15	1.1E-09	1.6E-09	1.1E-09	1.1E-09	1.4E-09	1.3E-09	2.7E-09	1.5E-09	1.4E-09	1.2E-09	1.5E-09
birth+20	1.1E-09	1.5E-09	1.1E-09	1.1E-09	1.3E-09	1.2E-09	2.6E-09	1.4E-09	1.3E-09	1.1E-09	1.4E-09
-260	1.2E-11	1.7E-11	1.2E-11	1.2E-11	1.5E-11	1.4E-11	2.9E-11	1.6E-11	1.5E-11	1.3E-11	1.6E-11
-52	3.7E-11	5.3E-11	3.7E-11	3.7E-11	4.5E-11	4.3E-11	8.8E-11	4.7E-11	4.5E-11	3.9E-11	4.8E-11
conception	2.0E-10	2.9E-10	2.0E-10	2.0E-10	2.4E-10	2.3E-10	4.8E-10	2.6E-10	2.4E-10	2.1E-10	2.6E-10
lactation	1.1E-09	1.6E-09	1.1E-09	1.1E-09	1.3E-09	1.3E-09	2.6E-09	1.4E-09	1.3E-09	1.2E-09	1.4E-09
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type S fl = 0.05											
-130	4.2E-12	6.0E-12	4.2E-12	4.2E-12	5.1E-12	4.9E-12	1.0E-11	5.4E-12	5.1E-12	4.5E-12	5.5E-12
-26	1.0E-11	1.5E-11	1.0E-11	1.0E-11	1.2E-11	1.2E-11	2.4E-11	1.3E-11	1.2E-11	1.1E-11	1.3E-11
conception	1.4E-11	2.0E-11	1.4E-11	1.4E-11	1.7E-11	1.6E-11	3.3E-11	1.8E-11	1.7E-11	1.5E-11	1.8E-11
+5	1.5E-11	2.2E-11	1.5E-11	1.5E-11	1.8E-11	1.8E-11	3.7E-11	2.0E-11	1.8E-11	1.6E-11	2.0E-11
+10	1.7E-11	2.4E-11	1.7E-11	1.7E-11	2.1E-11	2.0E-11	4.1E-11	2.2E-11	2.1E-11	1.8E-11	2.2E-11
+15	1.9E-11	2.8E-11	1.9E-11	1.9E-11	2.4E-11	2.3E-11	4.7E-11	2.5E-11	2.4E-11	2.1E-11	2.5E-11
+25	2.8E-11	4.1E-11	2.8E-11	2.8E-11	3.4E-11	3.3E-11	6.8E-11	3.6E-11	3.4E-11	3.0E-11	3.7E-11
+35	5.9E-11	8.5E-11	5.9E-11	5.9E-11	7.2E-11	6.9E-11	1.4E-10	7.6E-11	7.2E-11	6.3E-11	7.7E-11
birth	1.7E-10	2.4E-10	1.7E-10	1.7E-10	2.1E-10	2.0E-10	4.1E-10	2.2E-10	2.1E-10	1.8E-10	2.2E-10
birth+1	3.5E-10	5.0E-10	3.5E-10	3.5E-10	4.2E-10	4.1E-10	8.4E-10	4.5E-10	4.2E-10	3.7E-10	4.6E-10
birth+5	3.3E-10	4.7E-10	3.3E-10	3.3E-10	4.0E-10	3.8E-10	7.9E-10	4.2E-10	4.0E-10	3.5E-10	4.3E-10
birth+10	3.2E-10	4.7E-10	3.2E-10	3.2E-10	4.0E-10	3.8E-10	7.8E-10	4.2E-10	4.0E-10	3.5E-10	4.3E-10
birth+15	3.2E-10	4.6E-10	3.2E-10	3.2E-10	3.9E-10	3.8E-10	7.8E-10	4.2E-10	3.9E-10	3.5E-10	4.2E-10
birth+20	3.2E-10	4.6E-10	3.2E-10	3.2E-10	3.9E-10	3.7E-10	7.6E-10	4.1E-10	3.9E-10	3.4E-10	4.2E-10
-260	5.2E-12	7.4E-12	5.2E-12	5.2E-12	6.3E-12	6.0E-12	1.2E-11	6.7E-12	6.3E-12	5.5E-12	6.8E-12
-52	1.0E-11	1.5E-11	1.0E-11	1.0E-11	1.3E-11	1.2E-11	2.5E-11	1.3E-11	1.3E-11	1.1E-11	1.4E-11
conception	3.0E-11	4.3E-11	3.0E-11	3.0E-11	3.6E-11	3.5E-11	7.2E-11	3.9E-11	3.6E-11	3.2E-11	3.9E-11
lactation	3.0E-10	4.4E-10	3.0E-10	3.0E-10	3.7E-10	3.6E-10	7.4E-10	3.9E-10	3.7E-10	3.3E-10	4.0E-10
Ingestion: fl = 0.1											
-130	5.3E-12	7.7E-12	5.3E-12	5.3E-12	6.5E-12	6.3E-12	1.3E-11	6.9E-12	6.5E-12	5.7E-12	7.0E-12
-26	1.4E-11	2.0E-11	1.4E-11	1.4E-11	1.7E-11	1.6E-11	3.3E-11	1.8E-11	1.7E-11	1.5E-11	1.8E-11
conception	2.2E-11	3.2E-11	2.2E-11	2.2E-11	2.7E-11	2.6E-11	5.3E-11	2.9E-11	2.7E-11	2.4E-11	2.9E-11
+5	2.6E-11	3.7E-11	2.6E-11	2.6E-11	3.2E-11	3.0E-11	6.2E-11	3.3E-11	3.2E-11	2.8E-11	3.4E-11
+10	3.1E-11	4.5E-11	3.1E-11	3.1E-11	3.8E-11	3.6E-11	7.5E-11	4.0E-11	3.8E-11	3.3E-11	4.1E-11
+15	3.9E-11	5.6E-11	3.9E-11	3.9E-11	4.7E-11	4.5E-11	9.4E-11	5.0E-11	4.7E-11	4.2E-11	5.1E-11
+25	6.7E-11	9.6E-11	6.7E-11	6.7E-11	8.1E-11	7.8E-11	1.6E-10	8.6E-11	8.1E-11	7.2E-11	8.8E-11
+35	1.6E-10	2.4E-10	1.6E-10	1.6E-10	2.0E-10	1.9E-10	4.0E-10	2.1E-10	2.0E-10	1.8E-10	2.2E-10
birth	6.6E-10	9.4E-10	6.6E-10	6.6E-10	8.0E-10	7.7E-10	1.6E-09	8.5E-10	8.0E-10	7.0E-10	8.6E-10
birth+1	1.6E-09	2.3E-09	1.6E-09	1.6E-09	2.0E-09	1.9E-09	3.9E-09	2.1E-09	2.0E-09	1.8E-09	2.1E-09
birth+5	1.6E-09	2.3E-09	1.6E-09	1.6E-09	2.0E-09	1.9E-09	3.9E-09	2.1E-09	2.0E-09	1.8E-09	2.1E-09
birth+10	1.6E-09	2.2E-09	1.6E-09	1.6E-09	1.9E-09	1.8E-09	3.7E-09	2.0E-09	1.9E-09	1.7E-09	2.0E-09
birth+15	1.6E-09	2.2E-09	1.6E-09	1.6E-09	1.9E-09	1.8E-09	3.7E-09	2.0E-09	1.9E-09	1.7E-09	2.0E-09
birth+20	1.6E-09	2.2E-09	1.6E-09	1.6E-09	1.9E-09	1.8E-09	3.7E-09	2.0E-09	1.9E-09	1.7E-09	2.0E-09
-260	6.8E-12	9.8E-12	6.8E-12	6.8E-12	8.3E-12	8.0E-12	1.6E-11	8.8E-12	8.3E-12	7.3E-12	9.0E-12
-52	1.5E-11	2.1E-11	1.5E-11	1.5E-11	1.8E-11	1.7E-11	3.5E-11	1.9E-11	1.8E-11	1.6E-11	1.9E-11
conception	7.4E-11	1.1E-10	7.4E-11	7.4E-11	9.1E-11	8.7E-11	1.8E-10	9.6E-11	9.1E-11	8.0E-11	9.8E-11
lactation	1.5E-09	2.1E-09	1.5E-09	1.5E-09	1.8E-09	1.7E-09	3.6E-09	1.9E-09	1.8E-09	1.6E-09	2.0E-09

Dose coefficients (Sv/Bq) for the offspring from mothers' milk  
following intake of Co-60 (T½ = 5.27 y) by the mother (continued)

Scenario*	Testes	Ovaries	Brain	R.B.M.	Thyroid	Bone sur	Liver	Kidneys	Spleen	Remainder	Effective
Ingestion: f1 = 0.05											
-130	2.7E-12	3.8E-12	2.7E-12	2.7E-12	3.3E-12	3.1E-12	6.5E-12	3.5E-12	3.3E-12	2.9E-12	3.5E-12
-26	6.9E-12	9.9E-12	6.9E-12	6.9E-12	8.4E-12	8.0E-12	1.7E-11	8.9E-12	8.4E-12	7.4E-12	9.0E-12
conception	1.1E-11	1.6E-11	1.1E-11	1.1E-11	1.4E-11	1.3E-11	2.7E-11	1.4E-11	1.4E-11	1.2E-11	1.5E-11
+5	1.3E-11	1.9E-11	1.3E-11	1.3E-11	1.6E-11	1.5E-11	3.1E-11	1.7E-11	1.6E-11	1.4E-11	1.7E-11
+10	1.6E-11	2.2E-11	1.6E-11	1.6E-11	1.9E-11	1.8E-11	3.8E-11	2.0E-11	1.9E-11	1.7E-11	2.0E-11
+15	1.9E-11	2.8E-11	1.9E-11	1.9E-11	2.4E-11	2.3E-11	4.7E-11	2.5E-11	2.4E-11	2.1E-11	2.6E-11
+25	3.3E-11	4.8E-11	3.3E-11	3.3E-11	4.1E-11	3.9E-11	8.0E-11	4.3E-11	4.1E-11	3.6E-11	4.4E-11
+35	8.2E-11	1.2E-10	8.2E-11	8.2E-11	1.0E-10	9.6E-11	2.0E-10	1.1E-10	1.0E-10	8.8E-11	1.1E-10
birth	3.3E-10	4.7E-10	3.3E-10	3.3E-10	4.0E-10	3.8E-10	7.9E-10	4.2E-10	4.0E-10	3.5E-10	4.3E-10
birth+1	8.6E-10	1.2E-09	8.6E-10	8.6E-10	1.0E-09	1.0E-09	2.1E-09	1.1E-09	1.0E-09	9.2E-10	1.1E-09
birth+5	8.6E-10	1.2E-09	8.6E-10	8.6E-10	1.0E-09	1.0E-09	2.1E-09	1.1E-09	1.0E-09	9.2E-10	1.1E-09
birth+10	8.2E-10	1.2E-09	8.2E-10	8.2E-10	1.0E-09	9.6E-10	2.0E-09	1.1E-09	1.0E-09	8.8E-10	1.1E-09
birth+15	8.2E-10	1.2E-09	8.2E-10	8.2E-10	1.0E-09	9.6E-10	2.0E-09	1.1E-09	1.0E-09	8.8E-10	1.1E-09
birth+20	8.2E-10	1.2E-09	8.2E-10	8.2E-10	1.0E-09	9.6E-10	2.0E-09	1.1E-09	1.0E-09	8.8E-10	1.1E-09
-260	3.4E-12	4.9E-12	3.4E-12	3.4E-12	4.2E-12	4.0E-12	8.2E-12	4.4E-12	4.2E-12	3.7E-12	4.5E-12
-52	7.3E-12	1.0E-11	7.3E-12	7.3E-12	8.9E-12	8.5E-12	1.8E-11	9.4E-12	8.9E-12	7.8E-12	9.6E-12
conception	3.7E-11	5.3E-11	3.7E-11	3.7E-11	4.5E-11	4.3E-11	9.0E-11	4.8E-11	4.5E-11	4.0E-11	4.9E-11
lactation	7.5E-10	1.1E-09	7.5E-10	7.5E-10	9.2E-10	8.8E-10	1.8E-09	9.7E-10	9.2E-10	8.1E-10	9.9E-10

Dose coefficients (Sv/Bq) for the offspring from mothers' milk  
following intake of Zn-65 (T½ = 244 d) by the mother

Scenario*	Testes	Ovaries	Brain	R.B.M.	Thyroid	Bone sur	Liver	Kidneys	Spleen	Remainder	Effective
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type S fl = 0.5											
-130	9.3E-13	1.3E-12	1.1E-12	1.3E-12	1.2E-12	1.6E-12	1.1E-12	1.2E-12	1.1E-12	1.1E-12	1.1E-12
-26	2.3E-11	3.2E-11	2.6E-11	3.3E-11	2.9E-11	4.0E-11	2.9E-11	3.0E-11	2.9E-11	2.6E-11	2.8E-11
conception	5.3E-11	7.2E-11	6.0E-11	7.6E-11	6.7E-11	9.1E-11	6.5E-11	6.8E-11	6.5E-11	6.0E-11	6.3E-11
+5	6.2E-11	8.4E-11	7.0E-11	8.8E-11	7.8E-11	1.1E-10	7.6E-11	8.0E-11	7.6E-11	7.0E-11	7.4E-11
+10	7.2E-11	9.9E-11	8.2E-11	1.0E-10	9.2E-11	1.3E-10	8.9E-11	9.4E-11	8.9E-11	8.2E-11	8.7E-11
+15	8.5E-11	1.2E-10	9.6E-11	1.2E-10	1.1E-10	1.5E-10	1.0E-10	1.1E-10	1.0E-10	9.6E-11	1.0E-10
+25	1.2E-10	1.7E-10	1.4E-10	1.8E-10	1.6E-10	2.1E-10	1.5E-10	1.6E-10	1.5E-10	1.4E-10	1.5E-10
+35	2.6E-10	3.5E-10	2.9E-10	3.7E-10	3.2E-10	4.4E-10	3.2E-10	3.3E-10	3.2E-10	2.9E-10	3.1E-10
birth	3.8E-10	5.2E-10	4.3E-10	5.5E-10	4.8E-10	6.6E-10	4.7E-10	5.0E-10	4.7E-10	4.3E-10	4.6E-10
birth+1	4.0E-10	5.5E-10	4.6E-10	5.8E-10	5.1E-10	7.0E-10	5.0E-10	5.2E-10	5.0E-10	4.6E-10	4.8E-10
birth+5	3.8E-10	5.2E-10	4.3E-10	5.5E-10	4.8E-10	6.6E-10	4.7E-10	5.0E-10	4.7E-10	4.3E-10	4.6E-10
birth+10	3.5E-10	4.8E-10	4.0E-10	5.0E-10	4.4E-10	6.1E-10	4.3E-10	4.6E-10	4.3E-10	4.0E-10	4.2E-10
birth+15	3.1E-10	4.2E-10	3.5E-10	4.4E-10	3.9E-10	5.3E-10	3.8E-10	4.0E-10	3.8E-10	3.5E-10	3.7E-10
birth+20	2.3E-10	3.1E-10	2.6E-10	3.3E-10	2.9E-10	4.0E-10	2.8E-10	3.0E-10	2.8E-10	2.6E-10	2.8E-10
-260	6.5E-12	8.9E-12	7.4E-12	9.3E-12	8.2E-12	1.1E-11	8.0E-12	8.4E-12	8.0E-12	7.4E-12	7.8E-12
-52	2.6E-11	3.6E-11	3.0E-11	3.7E-11	3.3E-11	4.5E-11	3.2E-11	3.4E-11	3.2E-11	3.0E-11	3.1E-11
conception	1.2E-10	1.7E-10	1.4E-10	1.8E-10	1.6E-10	2.1E-10	1.5E-10	1.6E-10	1.5E-10	1.4E-10	1.5E-10
lactation	3.0E-10	4.0E-10	3.4E-10	4.2E-10	3.7E-10	5.1E-10	3.6E-10	3.8E-10	3.6E-10	3.4E-10	3.5E-10
Ingestion: fl = 0.5											
-130	1.7E-12	2.4E-12	2.0E-12	2.5E-12	2.2E-12	3.0E-12	2.1E-12	2.2E-12	2.1E-12	2.0E-12	2.1E-12
-26	4.8E-11	6.6E-11	5.5E-11	6.9E-11	6.1E-11	8.4E-11	6.0E-11	6.3E-11	6.0E-11	5.5E-11	5.8E-11
conception	1.1E-10	1.5E-10	1.3E-10	1.6E-10	1.4E-10	1.9E-10	1.4E-10	1.5E-10	1.4E-10	1.3E-10	1.3E-10
+5	1.3E-10	1.8E-10	1.5E-10	1.9E-10	1.7E-10	2.3E-10	1.6E-10	1.7E-10	1.6E-10	1.5E-10	1.6E-10
+10	1.5E-10	2.1E-10	1.8E-10	2.2E-10	2.0E-10	2.7E-10	1.9E-10	2.0E-10	1.9E-10	1.8E-10	1.9E-10
+15	1.8E-10	2.5E-10	2.1E-10	2.6E-10	2.3E-10	3.2E-10	2.2E-10	2.4E-10	2.2E-10	2.1E-10	2.2E-10
+25	2.6E-10	3.6E-10	3.0E-10	3.8E-10	3.4E-10	4.6E-10	3.3E-10	3.4E-10	3.3E-10	3.0E-10	3.2E-10
+35	5.6E-10	7.7E-10	6.4E-10	8.0E-10	7.1E-10	9.7E-10	6.9E-10	7.3E-10	6.9E-10	6.4E-10	6.7E-10
birth	8.6E-10	1.2E-09	9.7E-10	1.2E-09	1.1E-09	1.5E-09	1.1E-09	1.1E-09	1.1E-09	9.7E-10	1.0E-09
birth+1	9.1E-10	1.2E-09	1.0E-09	1.3E-09	1.1E-09	1.6E-09	1.1E-09	1.2E-09	1.1E-09	1.0E-09	1.1E-09
birth+5	8.6E-10	1.2E-09	9.8E-10	1.2E-09	1.1E-09	1.5E-09	1.1E-09	1.1E-09	1.1E-09	9.8E-10	1.0E-09
birth+10	8.0E-10	1.1E-09	9.0E-10	1.1E-09	1.0E-09	1.4E-09	9.8E-10	1.0E-09	9.8E-10	9.0E-10	9.6E-10
birth+15	7.0E-10	9.6E-10	8.0E-10	1.0E-09	8.9E-10	1.2E-09	8.7E-10	9.1E-10	8.7E-10	8.0E-10	8.4E-10
birth+20	5.4E-10	7.3E-10	6.1E-10	7.7E-10	6.8E-10	9.3E-10	6.6E-10	7.0E-10	6.6E-10	6.1E-10	6.4E-10
-260	1.3E-11	1.8E-11	1.5E-11	1.9E-11	1.7E-11	2.3E-11	1.7E-11	1.7E-11	1.7E-11	1.5E-11	1.6E-11
-52	5.5E-11	7.5E-11	6.2E-11	7.8E-11	6.9E-11	9.5E-11	6.7E-11	7.1E-11	6.7E-11	6.2E-11	6.5E-11
conception	2.7E-10	3.6E-10	3.0E-10	3.8E-10	3.4E-10	4.6E-10	3.3E-10	3.5E-10	3.3E-10	3.0E-10	3.2E-10
lactation	6.8E-10	9.2E-10	7.7E-10	9.7E-10	8.6E-10	1.2E-09	8.3E-10	8.8E-10	8.3E-10	7.7E-10	8.1E-10

Dose coefficients (Sv/Bq) for the offspring from mothers' milk  
following intake of Sr-90 (T½ = 29.1 y) by the mother

Scenario*	Testes	Ovaries	Brain	R.B.M.	Thyroid	Bone sur	Liver	Kidneys	Spleen	Remainder	Effective
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type F fl = 0.3											
-130	4.0E-12	4.0E-12	4.0E-12	5.0E-10	4.0E-12	7.6E-10	4.0E-12	4.0E-12	4.0E-12	4.1E-12	8.6E-11
-26	8.1E-12	8.1E-12	8.1E-12	1.0E-09	8.1E-12	1.6E-09	8.2E-12	8.1E-12	8.1E-12	8.5E-12	1.8E-10
conception	1.6E-11	1.6E-11	1.6E-11	2.0E-09	1.6E-11	3.0E-09	1.6E-11	1.6E-11	1.6E-11	1.7E-11	3.4E-10
+5	1.9E-11	1.9E-11	1.9E-11	2.4E-09	1.9E-11	3.7E-09	1.9E-11	1.9E-11	1.9E-11	2.0E-11	4.2E-10
+10	2.3E-11	2.3E-11	2.3E-11	2.9E-09	2.3E-11	4.5E-09	2.4E-11	2.3E-11	2.3E-11	2.5E-11	5.1E-10
+15	2.9E-11	2.9E-11	2.9E-11	3.7E-09	2.9E-11	5.6E-09	3.0E-11	2.9E-11	2.9E-11	3.1E-11	6.4E-10
+25	4.8E-11	4.8E-11	4.8E-11	6.1E-09	4.8E-11	9.3E-09	4.9E-11	4.8E-11	4.8E-11	5.1E-11	1.1E-09
+35	1.5E-10	1.5E-10	1.5E-10	1.9E-08	1.5E-10	2.9E-08	1.5E-10	1.5E-10	1.5E-10	1.6E-10	3.3E-09
birth	5.3E-10	5.3E-10	5.3E-10	6.6E-08	5.3E-10	1.0E-07	5.3E-10	5.3E-10	5.3E-10	5.5E-10	1.1E-08
birth+1	8.6E-10	8.6E-10	8.6E-10	1.1E-07	8.6E-10	1.6E-07	8.6E-10	8.6E-10	8.6E-10	8.8E-10	1.8E-08
birth+5	8.5E-10	8.5E-10	8.5E-10	1.1E-07	8.5E-10	1.6E-07	8.6E-10	8.5E-10	8.5E-10	8.7E-10	1.7E-08
birth+10	8.5E-10	8.5E-10	8.5E-10	1.1E-07	8.5E-10	1.6E-07	8.5E-10	8.5E-10	8.5E-10	8.6E-10	1.7E-08
birth+15	8.4E-10	8.4E-10	8.4E-10	1.0E-07	8.4E-10	1.6E-07	8.4E-10	8.4E-10	8.4E-10	8.5E-10	1.7E-08
birth+20	8.1E-10	8.1E-10	8.1E-10	1.0E-07	8.1E-10	1.6E-07	8.1E-10	8.1E-10	8.1E-10	8.3E-10	1.6E-08
-260	4.9E-12	4.9E-12	4.9E-12	6.1E-10	4.9E-12	9.3E-10	4.9E-12	4.9E-12	4.9E-12	5.1E-12	1.1E-10
-52	9.0E-12	9.0E-12	9.0E-12	1.1E-09	9.0E-12	1.7E-09	9.0E-12	9.0E-12	9.0E-12	9.4E-12	2.0E-10
conception	6.0E-11	6.0E-11	6.0E-11	7.4E-09	6.0E-11	1.1E-08	6.0E-11	6.0E-11	6.0E-11	6.2E-11	1.3E-09
lactation	8.2E-10	8.2E-10	8.2E-10	1.0E-07	8.2E-10	1.6E-07	8.2E-10	8.2E-10	8.2E-10	8.3E-10	1.7E-08
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type S fl = 0.01											
-130	6.5E-13	6.5E-13	6.5E-13	8.2E-11	6.5E-13	1.3E-10	6.6E-13	6.5E-13	6.5E-13	6.8E-13	1.4E-11
-26	1.2E-12	1.2E-12	1.2E-12	1.5E-10	1.2E-12	2.4E-10	1.2E-12	1.2E-12	1.2E-12	1.3E-12	2.7E-11
conception	1.6E-12	1.6E-12	1.6E-12	1.9E-10	1.6E-12	3.0E-10	1.6E-12	1.6E-12	1.6E-12	1.6E-12	3.4E-11
+5	1.7E-12	1.7E-12	1.7E-12	2.1E-10	1.7E-12	3.2E-10	1.7E-12	1.7E-12	1.7E-12	1.7E-12	3.6E-11
+10	1.8E-12	1.8E-12	1.8E-12	2.3E-10	1.8E-12	3.5E-10	1.8E-12	1.8E-12	1.8E-12	1.9E-12	3.9E-11
+15	2.0E-12	2.0E-12	2.0E-12	2.5E-10	2.0E-12	3.9E-10	2.0E-12	2.0E-12	2.0E-12	2.1E-12	4.4E-11
+25	2.8E-12	2.8E-12	2.8E-12	3.5E-10	2.8E-12	5.3E-10	2.8E-12	2.8E-12	2.8E-12	2.9E-12	6.0E-11
+35	5.6E-12	5.6E-12	5.6E-12	6.9E-10	5.6E-12	1.1E-09	5.6E-12	5.6E-12	5.6E-12	5.8E-12	1.2E-10
birth	1.4E-11	1.4E-11	1.4E-11	1.8E-09	1.4E-11	2.7E-09	1.4E-11	1.4E-11	1.4E-11	1.5E-11	3.0E-10
birth+1	1.4E-11	1.4E-11	1.4E-11	1.7E-09	1.4E-11	2.6E-09	1.4E-11	1.4E-11	1.4E-11	1.4E-11	2.8E-10
birth+5	1.3E-11	1.3E-11	1.3E-11	1.7E-09	1.3E-11	2.6E-09	1.3E-11	1.3E-11	1.3E-11	1.4E-11	2.8E-10
birth+10	1.3E-11	1.3E-11	1.3E-11	1.6E-09	1.3E-11	2.5E-09	1.3E-11	1.3E-11	1.3E-11	1.3E-11	2.7E-10
birth+15	1.2E-11	1.2E-11	1.2E-11	1.5E-09	1.2E-11	2.4E-09	1.2E-11	1.2E-11	1.2E-11	1.3E-11	2.5E-10
birth+20	1.1E-11	1.1E-11	1.1E-11	1.4E-09	1.1E-11	2.2E-09	1.2E-11	1.1E-11	1.1E-11	1.2E-11	2.4E-10
-260	7.4E-13	7.4E-13	7.4E-13	9.3E-11	7.4E-13	1.4E-10	7.4E-13	7.4E-13	7.4E-13	7.7E-13	1.6E-11
-52	1.3E-12	1.3E-12	1.3E-12	1.6E-10	1.3E-12	2.4E-10	1.3E-12	1.3E-12	1.3E-12	1.3E-12	2.7E-11
conception	2.9E-12	2.9E-12	2.9E-12	3.6E-10	2.9E-12	5.6E-10	2.9E-12	2.9E-12	2.9E-12	3.0E-12	6.3E-11
lactation	1.2E-11	1.2E-11	1.2E-11	1.5E-09	1.2E-11	2.4E-09	1.2E-11	1.2E-11	1.2E-11	1.3E-11	2.5E-10
Ingestion: fl = 0.3											
-130	3.5E-12	3.5E-12	3.5E-12	4.4E-10	3.5E-12	6.7E-10	3.5E-12	3.5E-12	3.5E-12	3.7E-12	7.6E-11
-26	7.2E-12	7.2E-12	7.2E-12	9.0E-10	7.2E-12	1.4E-09	7.2E-12	7.2E-12	7.2E-12	7.5E-12	1.6E-10
conception	1.4E-11	1.4E-11	1.4E-11	1.8E-09	1.4E-11	2.7E-09	1.4E-11	1.4E-11	1.4E-11	1.5E-11	3.1E-10
+5	1.9E-11	1.9E-11	1.9E-11	2.4E-09	1.9E-11	3.6E-09	1.9E-11	1.9E-11	1.9E-11	2.0E-11	4.1E-10
+10	2.5E-11	2.5E-11	2.5E-11	3.2E-09	2.5E-11	4.8E-09	2.5E-11	2.5E-11	2.5E-11	2.6E-11	5.5E-10
+15	3.6E-11	3.6E-11	3.6E-11	4.5E-09	3.6E-11	6.9E-09	3.6E-11	3.6E-11	3.6E-11	3.7E-11	7.8E-10
+25	7.2E-11	7.2E-11	7.2E-11	9.0E-09	7.2E-11	1.4E-08	7.3E-11	7.2E-11	7.2E-11	7.6E-11	1.6E-09
+35	2.3E-10	2.3E-10	2.3E-10	2.8E-08	2.3E-10	4.4E-08	2.3E-10	2.3E-10	2.3E-10	2.4E-10	4.9E-09
birth	8.1E-10	8.1E-10	8.1E-10	1.0E-07	8.1E-10	1.5E-07	8.1E-10	8.1E-10	8.1E-10	8.4E-10	1.7E-08
birth+1	7.6E-10	7.6E-10	7.6E-10	9.5E-08	7.6E-10	1.5E-07	7.6E-10	7.6E-10	7.6E-10	7.8E-10	1.6E-08
birth+5	7.6E-10	7.6E-10	7.6E-10	9.5E-08	7.6E-10	1.5E-07	7.6E-10	7.6E-10	7.6E-10	7.7E-10	1.6E-08
birth+10	7.5E-10	7.5E-10	7.5E-10	9.4E-08	7.5E-10	1.4E-07	7.5E-10	7.5E-10	7.5E-10	7.7E-10	1.5E-08
birth+15	7.4E-10	7.4E-10	7.4E-10	9.3E-08	7.4E-10	1.4E-07	7.4E-10	7.4E-10	7.4E-10	7.6E-10	1.5E-08
birth+20	7.2E-10	7.2E-10	7.2E-10	9.0E-08	7.2E-10	1.4E-07	7.2E-10	7.2E-10	7.2E-10	7.3E-10	1.5E-08
-260	4.3E-12	4.3E-12	4.3E-12	5.4E-10	4.3E-12	8.2E-10	4.3E-12	4.3E-12	4.3E-12	4.5E-12	9.4E-11
-52	8.0E-12	8.0E-12	8.0E-12	1.0E-09	8.0E-12	1.5E-09	8.0E-12	8.0E-12	8.0E-12	8.4E-12	1.7E-10
conception	8.5E-11	8.5E-11	8.5E-11	1.1E-08	8.5E-11	1.6E-08	8.5E-11	8.5E-11	8.5E-11	8.8E-11	1.8E-09
lactation	7.3E-10	7.3E-10	7.3E-10	9.2E-08	7.3E-10	1.4E-07	7.4E-10	7.3E-10	7.3E-10	7.5E-10	1.5E-08



Dose coefficients (Sv/Bq) for the offspring from mothers' milk  
following intake of Sr-90 (T½ = 29.1 y) by the mother (continued)

Scenario*	Testes	Ovaries	Brain	R.B.M.	Thyroid	Bone sur	Liver	Kidneys	Spleen	Remainder	Effective
Ingestion (Strontium titanate): fl = 0.01											
-130	1.2E-13	1.2E-13	1.2E-13	1.5E-11	1.2E-13	2.2E-11	1.2E-13	1.2E-13	1.2E-13	1.2E-13	2.5E-12
-26	2.4E-13	2.4E-13	2.4E-13	3.0E-11	2.4E-13	4.6E-11	2.4E-13	2.4E-13	2.4E-13	2.5E-13	5.2E-12
conception	4.7E-13	4.7E-13	4.7E-13	5.9E-11	4.7E-13	9.0E-11	4.7E-13	4.7E-13	4.7E-13	4.9E-13	1.0E-11
+5	6.2E-13	6.2E-13	6.2E-13	7.7E-11	6.2E-13	1.2E-10	6.2E-13	6.2E-13	6.2E-13	6.5E-13	1.3E-11
+10	8.2E-13	8.2E-13	8.2E-13	1.0E-10	8.2E-13	1.6E-10	8.2E-13	8.2E-13	8.2E-13	8.5E-13	1.8E-11
+15	1.1E-12	1.1E-12	1.1E-12	1.4E-10	1.1E-12	2.2E-10	1.1E-12	1.1E-12	1.1E-12	1.2E-12	2.5E-11
+25	2.4E-12	2.4E-12	2.4E-12	3.0E-10	2.4E-12	4.6E-10	2.4E-12	2.4E-12	2.4E-12	2.5E-12	5.2E-11
+35	7.6E-12	7.6E-12	7.6E-12	9.5E-10	7.6E-12	1.5E-09	7.6E-12	7.6E-12	7.6E-12	7.9E-12	1.7E-10
birth	2.7E-11	2.7E-11	2.7E-11	3.4E-09	2.7E-11	5.2E-09	2.7E-11	2.7E-11	2.7E-11	2.8E-11	5.8E-10
birth+1	2.5E-11	2.5E-11	2.5E-11	3.2E-09	2.5E-11	4.9E-09	2.5E-11	2.5E-11	2.5E-11	2.6E-11	5.2E-10
birth+5	2.5E-11	2.5E-11	2.5E-11	3.2E-09	2.5E-11	4.8E-09	2.5E-11	2.5E-11	2.5E-11	2.6E-11	5.2E-10
birth+10	2.5E-11	2.5E-11	2.5E-11	3.1E-09	2.5E-11	4.8E-09	2.5E-11	2.5E-11	2.5E-11	2.6E-11	5.1E-10
birth+15	2.5E-11	2.5E-11	2.5E-11	3.1E-09	2.5E-11	4.7E-09	2.5E-11	2.5E-11	2.5E-11	2.5E-11	5.0E-10
birth+20	2.4E-11	2.4E-11	2.4E-11	3.0E-09	2.4E-11	4.6E-09	2.4E-11	2.4E-11	2.4E-11	2.4E-11	4.9E-10
-260	1.4E-13	1.4E-13	1.4E-13	1.8E-11	1.4E-13	2.7E-11	1.4E-13	1.4E-13	1.4E-13	1.5E-13	3.1E-12
-52	2.7E-13	2.7E-13	2.7E-13	3.3E-11	2.7E-13	5.1E-11	2.7E-13	2.7E-13	2.7E-13	2.8E-13	5.8E-12
conception	2.8E-12	2.8E-12	2.8E-12	3.5E-10	2.8E-12	5.4E-10	2.8E-12	2.8E-12	2.8E-12	2.9E-12	6.1E-11
lactation	2.4E-11	2.4E-11	2.4E-11	3.0E-09	2.4E-11	4.7E-09	2.4E-11	2.4E-11	2.4E-11	2.5E-11	5.0E-10



Dose coefficients (Sv/Bq) for the offspring from mothers' milk  
following intake of Ru-106 (T½ = 1.01 y) by the mother

Scenario*	Testes	Ovaries	Brain	R.B.M.	Thyroid	Bone sur	Liver	Kidneys	Spleen	Remainder	Effective
Inhalation of vapour											
-130	7.0E-13	7.3E-13	7.0E-13	7.0E-13	7.0E-13	7.0E-13	7.0E-13	7.0E-13	7.0E-13	7.3E-13	2.6E-12
-26	4.6E-12	4.8E-12	4.6E-12	4.6E-12	4.6E-12	4.6E-12	4.6E-12	4.6E-12	4.6E-12	4.8E-12	1.7E-11
conception	8.0E-12	8.3E-12	8.0E-12	8.0E-12	8.0E-12	8.0E-12	8.0E-12	8.0E-12	8.0E-12	8.3E-12	2.9E-11
+5	9.3E-12	9.7E-12	9.3E-12	9.3E-12	9.3E-12	9.3E-12	9.3E-12	9.3E-12	9.3E-12	9.7E-12	3.4E-11
+10	1.2E-11	1.2E-11	1.2E-11	1.2E-11	1.2E-11	1.2E-11	1.2E-11	1.2E-11	1.2E-11	1.2E-11	4.2E-11
+15	1.5E-11	1.6E-11	1.5E-11	1.5E-11	1.5E-11	1.5E-11	1.5E-11	1.5E-11	1.5E-11	1.6E-11	5.6E-11
+25	3.8E-11	3.9E-11	3.8E-11	3.8E-11	3.8E-11	3.8E-11	3.8E-11	3.8E-11	3.8E-11	3.9E-11	1.4E-10
+35	1.6E-10	1.7E-10	1.6E-10	1.6E-10	1.6E-10	1.6E-10	1.6E-10	1.6E-10	1.6E-10	1.7E-10	6.0E-10
birth	4.1E-10	4.3E-10	4.1E-10	4.1E-10	4.1E-10	4.1E-10	4.1E-10	4.1E-10	4.1E-10	4.3E-10	1.5E-09
birth+1	5.8E-10	6.0E-10	5.8E-10	5.8E-10	5.8E-10	5.8E-10	5.8E-10	5.8E-10	5.8E-10	6.0E-10	2.1E-09
birth+5	5.7E-10	6.0E-10	5.7E-10	5.7E-10	5.7E-10	5.7E-10	5.7E-10	5.7E-10	5.7E-10	6.0E-10	2.1E-09
birth+10	5.6E-10	5.8E-10	5.6E-10	5.6E-10	5.6E-10	5.6E-10	5.6E-10	5.6E-10	5.6E-10	5.8E-10	2.0E-09
birth+15	5.4E-10	5.6E-10	5.4E-10	5.4E-10	5.4E-10	5.4E-10	5.4E-10	5.4E-10	5.4E-10	5.6E-10	2.0E-09
birth+20	4.8E-10	5.0E-10	4.8E-10	4.8E-10	4.8E-10	4.8E-10	4.8E-10	4.8E-10	4.8E-10	5.0E-10	1.8E-09
-260	1.6E-12	1.6E-12	1.6E-12	1.6E-12	1.6E-12	1.6E-12	1.6E-12	1.6E-12	1.6E-12	1.6E-12	5.7E-12
-52	4.9E-12	5.1E-12	4.9E-12	4.9E-12	4.9E-12	4.9E-12	4.9E-12	4.9E-12	4.9E-12	5.1E-12	1.8E-11
conception	5.2E-11	5.4E-11	5.2E-11	5.2E-11	5.2E-11	5.2E-11	5.2E-11	5.2E-11	5.2E-11	5.4E-11	1.9E-10
lactation	5.1E-10	5.3E-10	5.1E-10	5.1E-10	5.1E-10	5.1E-10	5.1E-10	5.1E-10	5.1E-10	5.3E-10	1.9E-09
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type F fl = 0.05											
-130	3.8E-13	4.0E-13	3.8E-13	3.8E-13	3.8E-13	3.8E-13	3.8E-13	3.8E-13	3.8E-13	4.0E-13	1.4E-12
-26	2.5E-12	2.6E-12	2.5E-12	2.5E-12	2.5E-12	2.5E-12	2.5E-12	2.5E-12	2.5E-12	2.6E-12	9.2E-12
conception	4.4E-12	4.6E-12	4.4E-12	4.4E-12	4.4E-12	4.4E-12	4.4E-12	4.4E-12	4.4E-12	4.6E-12	1.6E-11
+5	5.1E-12	5.3E-12	5.1E-12	5.1E-12	5.1E-12	5.1E-12	5.1E-12	5.1E-12	5.1E-12	5.3E-12	1.9E-11
+10	6.3E-12	6.6E-12	6.3E-12	6.3E-12	6.3E-12	6.3E-12	6.3E-12	6.3E-12	6.3E-12	6.6E-12	2.3E-11
+15	8.4E-12	8.8E-12	8.4E-12	8.4E-12	8.4E-12	8.4E-12	8.4E-12	8.4E-12	8.4E-12	8.8E-12	3.1E-11
+25	2.1E-11	2.2E-11	2.1E-11	2.1E-11	2.1E-11	2.1E-11	2.1E-11	2.1E-11	2.1E-11	2.2E-11	7.6E-11
+35	9.0E-11	9.4E-11	9.0E-11	9.0E-11	9.0E-11	9.0E-11	9.0E-11	9.0E-11	9.0E-11	9.4E-11	3.3E-10
birth	2.3E-10	2.4E-10	2.3E-10	2.3E-10	2.3E-10	2.3E-10	2.3E-10	2.3E-10	2.3E-10	2.4E-10	8.2E-10
birth+1	3.2E-10	3.3E-10	3.2E-10	3.2E-10	3.2E-10	3.2E-10	3.2E-10	3.2E-10	3.2E-10	3.3E-10	1.2E-09
birth+5	3.1E-10	3.3E-10	3.1E-10	3.1E-10	3.1E-10	3.1E-10	3.1E-10	3.1E-10	3.1E-10	3.3E-10	1.1E-09
birth+10	3.1E-10	3.2E-10	3.1E-10	3.1E-10	3.1E-10	3.1E-10	3.1E-10	3.1E-10	3.1E-10	3.2E-10	1.1E-09
birth+15	2.9E-10	3.1E-10	2.9E-10	2.9E-10	2.9E-10	2.9E-10	2.9E-10	2.9E-10	2.9E-10	3.1E-10	1.1E-09
birth+20	2.6E-10	2.8E-10	2.6E-10	2.6E-10	2.6E-10	2.6E-10	2.6E-10	2.6E-10	2.6E-10	2.8E-10	9.7E-10
-260	8.6E-13	9.0E-13	8.6E-13	8.6E-13	8.6E-13	8.6E-13	8.6E-13	8.6E-13	8.6E-13	9.0E-13	3.1E-12
-52	2.7E-12	2.8E-12	2.7E-12	2.7E-12	2.7E-12	2.7E-12	2.7E-12	2.7E-12	2.7E-12	2.8E-12	9.7E-12
conception	2.8E-11	3.0E-11	2.8E-11	2.8E-11	2.8E-11	2.8E-11	2.8E-11	2.8E-11	2.8E-11	3.0E-11	1.0E-10
lactation	2.8E-10	2.9E-10	2.8E-10	2.8E-10	2.8E-10	2.8E-10	2.8E-10	2.8E-10	2.8E-10	2.9E-10	1.0E-09
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type M fl = 0.05											
-130	1.1E-13	1.2E-13	1.1E-13	1.1E-13	1.1E-13	1.1E-13	1.1E-13	1.1E-13	1.1E-13	1.2E-13	4.2E-13
-26	1.4E-12	1.4E-12	1.4E-12	1.4E-12	1.4E-12	1.4E-12	1.4E-12	1.4E-12	1.4E-12	1.4E-12	5.0E-12
conception	3.8E-12	4.0E-12	3.8E-12	3.8E-12	3.8E-12	3.8E-12	3.8E-12	3.8E-12	3.8E-12	4.0E-12	1.4E-11
+5	4.8E-12	5.0E-12	4.8E-12	4.8E-12	4.8E-12	4.8E-12	4.8E-12	4.8E-12	4.8E-12	5.0E-12	1.7E-11
+10	6.1E-12	6.4E-12	6.1E-12	6.1E-12	6.1E-12	6.1E-12	6.1E-12	6.1E-12	6.1E-12	6.4E-12	2.2E-11
+15	7.9E-12	8.3E-12	7.9E-12	7.9E-12	7.9E-12	7.9E-12	7.9E-12	7.9E-12	7.9E-12	8.3E-12	2.9E-11
+25	1.4E-11	1.5E-11	1.4E-11	1.4E-11	1.4E-11	1.4E-11	1.4E-11	1.4E-11	1.4E-11	1.5E-11	5.3E-11
+35	3.4E-11	3.5E-11	3.4E-11	3.4E-11	3.4E-11	3.4E-11	3.4E-11	3.4E-11	3.4E-11	3.5E-11	1.2E-10
birth	5.8E-11	6.1E-11	5.8E-11	5.8E-11	5.8E-11	5.8E-11	5.8E-11	5.8E-11	5.8E-11	6.1E-11	2.1E-10
birth+1	7.3E-11	7.6E-11	7.3E-11	7.3E-11	7.3E-11	7.3E-11	7.3E-11	7.3E-11	7.3E-11	7.6E-11	2.7E-10
birth+5	7.1E-11	7.4E-11	7.1E-11	7.1E-11	7.1E-11	7.1E-11	7.1E-11	7.1E-11	7.1E-11	7.4E-11	2.6E-10
birth+10	6.7E-11	7.0E-11	6.7E-11	6.7E-11	6.7E-11	6.7E-11	6.7E-11	6.7E-11	6.7E-11	7.0E-11	2.4E-10
birth+15	6.0E-11	6.3E-11	6.0E-11	6.0E-11	6.0E-11	6.0E-11	6.0E-11	6.0E-11	6.0E-11	6.3E-11	2.2E-10
birth+20	5.0E-11	5.2E-11	5.0E-11	5.0E-11	5.0E-11	5.0E-11	5.0E-11	5.0E-11	5.0E-11	5.2E-11	1.8E-10
-260	4.3E-13	4.5E-13	4.3E-13	4.3E-13	4.3E-13	4.3E-13	4.3E-13	4.3E-13	4.3E-13	4.5E-13	1.6E-12
-52	1.6E-12	1.7E-12	1.6E-12	1.6E-12	1.6E-12	1.6E-12	1.6E-12	1.6E-12	1.6E-12	1.7E-12	6.0E-12
conception	1.4E-11	1.5E-11	1.4E-11	1.4E-11	1.4E-11	1.4E-11	1.4E-11	1.4E-11	1.4E-11	1.5E-11	5.2E-11
lactation	5.9E-11	6.1E-11	5.9E-11	5.9E-11	5.9E-11	5.9E-11	5.9E-11	5.9E-11	5.9E-11	6.1E-11	2.1E-10

Dose coefficients (Sv/Bq) for the offspring from mothers' milk  
following intake of Ru-106 (T½ = 1.01 y) by the mother

Scenario*	Testes	Ovaries	Brain	R.B.M.	Thyroid	Bone sur	Liver	Kidneys	Spleen	Remainder	Effective
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type S f1 = 0.05											
-130	6.7E-14	7.0E-14	6.7E-14	6.7E-14	6.7E-14	6.7E-14	6.7E-14	6.7E-14	6.7E-14	7.0E-14	2.4E-13
-26	4.5E-13	4.7E-13	4.5E-13	4.5E-13	4.5E-13	4.5E-13	4.5E-13	4.5E-13	4.5E-13	4.7E-13	1.6E-12
conception	7.6E-13	7.9E-13	7.6E-13	7.6E-13	7.6E-13	7.6E-13	7.6E-13	7.6E-13	7.6E-13	7.9E-13	2.8E-12
+5	8.6E-13	9.0E-13	8.6E-13	8.6E-13	8.6E-13	8.6E-13	8.6E-13	8.6E-13	8.6E-13	9.0E-13	3.1E-12
+10	1.0E-12	1.1E-12	1.0E-12	1.0E-12	1.0E-12	1.0E-12	1.0E-12	1.0E-12	1.0E-12	1.1E-12	3.7E-12
+15	1.3E-12	1.3E-12	1.3E-12	1.3E-12	1.3E-12	1.3E-12	1.3E-12	1.3E-12	1.3E-12	1.3E-12	4.6E-12
+25	2.5E-12	2.6E-12	2.5E-12	2.5E-12	2.5E-12	2.5E-12	2.5E-12	2.5E-12	2.5E-12	2.6E-12	9.0E-12
+35	8.4E-12	8.8E-12	8.4E-12	8.4E-12	8.4E-12	8.4E-12	8.4E-12	8.4E-12	8.4E-12	8.8E-12	3.1E-11
birth	1.9E-11	2.0E-11	1.9E-11	1.9E-11	1.9E-11	1.9E-11	1.9E-11	1.9E-11	1.9E-11	2.0E-11	6.9E-11
birth+1	2.5E-11	2.6E-11	2.5E-11	2.5E-11	2.5E-11	2.5E-11	2.5E-11	2.5E-11	2.5E-11	2.6E-11	9.2E-11
birth+5	2.5E-11	2.6E-11	2.5E-11	2.5E-11	2.5E-11	2.5E-11	2.5E-11	2.5E-11	2.5E-11	2.6E-11	9.1E-11
birth+10	2.4E-11	2.5E-11	2.4E-11	2.4E-11	2.4E-11	2.4E-11	2.4E-11	2.4E-11	2.4E-11	2.5E-11	8.8E-11
birth+15	2.3E-11	2.4E-11	2.3E-11	2.3E-11	2.3E-11	2.3E-11	2.3E-11	2.3E-11	2.3E-11	2.4E-11	8.3E-11
birth+20	2.0E-11	2.1E-11	2.0E-11	2.0E-11	2.0E-11	2.0E-11	2.0E-11	2.0E-11	2.0E-11	2.1E-11	7.4E-11
-260	1.5E-13	1.6E-13	1.5E-13	1.5E-13	1.5E-13	1.5E-13	1.5E-13	1.5E-13	1.5E-13	1.6E-13	5.5E-13
-52	4.7E-13	4.9E-13	4.7E-13	4.7E-13	4.7E-13	4.7E-13	4.7E-13	4.7E-13	4.7E-13	4.9E-13	1.7E-12
conception	3.0E-12	3.1E-12	3.0E-12	3.0E-12	3.0E-12	3.0E-12	3.0E-12	3.0E-12	3.0E-12	3.1E-12	1.1E-11
lactation	2.2E-11	2.3E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.2E-11	2.3E-11	8.0E-11
Ingestion: f1 = 0.05											
-130	6.7E-14	6.9E-14	6.7E-14	6.7E-14	6.7E-14	6.7E-14	6.7E-14	6.7E-14	6.7E-14	6.9E-14	2.4E-13
-26	4.4E-13	4.6E-13	4.4E-13	4.4E-13	4.4E-13	4.4E-13	4.4E-13	4.4E-13	4.4E-13	4.6E-13	1.6E-12
conception	7.6E-13	7.9E-13	7.6E-13	7.6E-13	7.6E-13	7.6E-13	7.6E-13	7.6E-13	7.6E-13	7.9E-13	2.8E-12
+5	8.9E-13	9.3E-13	8.9E-13	8.9E-13	8.9E-13	8.9E-13	8.9E-13	8.9E-13	8.9E-13	9.3E-13	3.2E-12
+10	1.1E-12	1.1E-12	1.1E-12	1.1E-12	1.1E-12	1.1E-12	1.1E-12	1.1E-12	1.1E-12	1.1E-12	4.0E-12
+15	1.5E-12	1.5E-12	1.5E-12	1.5E-12	1.5E-12	1.5E-12	1.5E-12	1.5E-12	1.5E-12	1.5E-12	5.4E-12
+25	3.6E-12	3.8E-12	3.6E-12	3.6E-12	3.6E-12	3.6E-12	3.6E-12	3.6E-12	3.6E-12	3.8E-12	1.3E-11
+35	1.6E-11	1.6E-11	1.6E-11	1.6E-11	1.6E-11	1.6E-11	1.6E-11	1.6E-11	1.6E-11	1.6E-11	5.8E-11
birth	4.0E-11	4.1E-11	4.0E-11	4.0E-11	4.0E-11	4.0E-11	4.0E-11	4.0E-11	4.0E-11	4.1E-11	1.5E-10
birth+1	5.5E-11	5.7E-11	5.5E-11	5.5E-11	5.5E-11	5.5E-11	5.5E-11	5.5E-11	5.5E-11	5.7E-11	2.0E-10
birth+5	5.4E-11	5.7E-11	5.4E-11	5.4E-11	5.4E-11	5.4E-11	5.4E-11	5.4E-11	5.4E-11	5.7E-11	2.0E-10
birth+10	5.3E-11	5.6E-11	5.3E-11	5.3E-11	5.3E-11	5.3E-11	5.3E-11	5.3E-11	5.3E-11	5.6E-11	1.9E-10
birth+15	5.1E-11	5.3E-11	5.1E-11	5.1E-11	5.1E-11	5.1E-11	5.1E-11	5.1E-11	5.1E-11	5.3E-11	1.9E-10
birth+20	4.6E-11	4.8E-11	4.6E-11	4.6E-11	4.6E-11	4.6E-11	4.6E-11	4.6E-11	4.6E-11	4.8E-11	1.7E-10
-260	1.5E-13	1.6E-13	1.5E-13	1.5E-13	1.5E-13	1.5E-13	1.5E-13	1.5E-13	1.5E-13	1.6E-13	5.5E-13
-52	4.6E-13	4.8E-13	4.6E-13	4.6E-13	4.6E-13	4.6E-13	4.6E-13	4.6E-13	4.6E-13	4.8E-13	1.7E-12
conception	5.0E-12	5.2E-12	5.0E-12	5.0E-12	5.0E-12	5.0E-12	5.0E-12	5.0E-12	5.0E-12	5.2E-12	1.8E-11
lactation	4.9E-11	5.1E-11	4.9E-11	4.9E-11	4.9E-11	4.9E-11	4.9E-11	4.9E-11	4.9E-11	5.1E-11	1.8E-10

Dose coefficients (Sv/Bq) for the offspring from mothers' milk  
following intake of I-125 (T½ = 60.1 d) by the mother

Scenario*	Testes	Ovaries	Brain	R.B.M.	Thyroid	Bone sur	Liver	Kidneys	Spleen	Remainder	Effective
Inhalation of elemental iodine vapour											
-130	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-26	7.9E-16	1.5E-15	1.1E-15	1.0E-15	8.0E-12	4.5E-15	9.5E-16	8.8E-16	1.0E-15	3.5E-15	4.1E-13
conception	1.5E-14	2.9E-14	2.2E-14	2.0E-14	1.5E-10	8.8E-14	1.9E-14	1.7E-14	2.0E-14	6.8E-14	8.0E-12
+5	4.6E-14	8.8E-14	6.5E-14	6.0E-14	4.6E-10	2.6E-13	5.5E-14	5.1E-14	6.0E-14	2.0E-13	2.4E-11
+10	9.1E-14	1.7E-13	1.3E-13	1.2E-13	9.2E-10	5.2E-13	1.1E-13	1.0E-13	1.2E-13	4.0E-13	4.8E-11
+15	1.7E-13	3.3E-13	2.5E-13	2.3E-13	1.8E-09	1.0E-12	2.1E-13	1.9E-13	2.3E-13	7.7E-13	9.1E-11
+25	6.8E-13	1.3E-12	9.6E-13	8.9E-13	6.8E-09	3.9E-12	8.2E-13	7.5E-13	8.9E-13	3.0E-12	3.5E-10
+35	2.2E-12	4.3E-12	3.2E-12	2.9E-12	2.3E-08	1.3E-11	2.7E-12	2.5E-12	2.9E-12	9.9E-12	1.2E-09
birth	3.1E-12	5.9E-12	4.3E-12	4.0E-12	3.1E-08	1.8E-11	3.7E-12	3.4E-12	4.0E-12	1.4E-11	1.6E-09
birth+1	3.0E-11	5.8E-11	4.3E-11	4.0E-11	3.0E-07	1.7E-10	3.6E-11	3.3E-11	4.0E-11	1.3E-10	1.6E-08
birth+5	3.0E-11	5.8E-11	4.2E-11	3.9E-11	3.0E-07	1.7E-10	3.6E-11	3.3E-11	3.9E-11	1.3E-10	1.6E-08
birth+10	3.0E-11	5.7E-11	4.2E-11	3.9E-11	3.0E-07	1.7E-10	3.6E-11	3.3E-11	3.9E-11	1.3E-10	1.6E-08
birth+15	3.0E-11	5.7E-11	4.2E-11	3.9E-11	3.0E-07	1.7E-10	3.6E-11	3.3E-11	3.9E-11	1.3E-10	1.6E-08
birth+20	2.9E-11	5.6E-11	4.2E-11	3.9E-11	3.0E-07	1.7E-10	3.6E-11	3.3E-11	3.9E-11	1.3E-10	1.5E-08
-260	5.2E-16	1.0E-15	7.4E-16	6.8E-16	5.3E-12	3.0E-15	6.3E-16	5.8E-16	6.8E-16	2.3E-15	2.7E-13
-52	2.6E-15	5.0E-15	3.7E-15	3.4E-15	2.6E-11	1.5E-14	3.1E-15	2.9E-15	3.4E-15	1.2E-14	1.4E-12
conception	6.8E-13	1.3E-12	9.6E-13	8.9E-13	6.8E-09	3.9E-12	8.2E-13	7.5E-13	8.9E-13	3.0E-12	3.6E-10
lactation	2.9E-11	5.6E-11	4.2E-11	3.9E-11	3.0E-07	1.7E-10	3.6E-11	3.3E-11	3.9E-11	1.3E-10	1.5E-08
Inhalation of methyl iodide											
-130	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-26	6.1E-16	1.2E-15	8.7E-16	8.1E-16	6.2E-12	3.5E-15	7.4E-16	6.8E-16	8.1E-16	2.7E-15	3.2E-13
conception	1.2E-14	2.3E-14	1.7E-14	1.6E-14	1.2E-10	6.9E-14	1.4E-14	1.3E-14	1.6E-14	5.3E-14	6.3E-12
+5	3.6E-14	6.8E-14	5.0E-14	4.7E-14	3.6E-10	2.1E-13	4.3E-14	4.0E-14	4.7E-14	1.6E-13	1.9E-11
+10	7.1E-14	1.4E-13	1.0E-13	9.3E-14	7.1E-10	4.1E-13	8.6E-14	7.9E-14	9.3E-14	3.1E-13	3.7E-11
+15	1.4E-13	2.6E-13	1.9E-13	1.8E-13	1.4E-09	7.8E-13	1.6E-13	1.5E-13	1.8E-13	6.0E-13	7.1E-11
+25	5.3E-13	1.0E-12	7.4E-13	6.9E-13	5.3E-09	3.0E-12	6.4E-13	5.8E-13	6.9E-13	2.3E-12	2.8E-10
+35	1.7E-12	3.3E-12	2.5E-12	2.3E-12	1.8E-08	1.0E-11	2.1E-12	1.9E-12	2.3E-12	7.8E-12	9.2E-10
birth	2.4E-12	4.5E-12	3.3E-12	3.1E-12	2.4E-08	1.4E-11	2.9E-12	2.6E-12	3.1E-12	1.1E-11	1.2E-09
birth+1	2.3E-11	4.5E-11	3.3E-11	3.1E-11	2.4E-07	1.4E-10	2.8E-11	2.6E-11	3.1E-11	1.0E-10	1.2E-08
birth+5	2.3E-11	4.5E-11	3.3E-11	3.1E-11	2.4E-07	1.3E-10	2.8E-11	2.6E-11	3.1E-11	1.0E-10	1.2E-08
birth+10	2.3E-11	4.5E-11	3.3E-11	3.1E-11	2.4E-07	1.3E-10	2.8E-11	2.6E-11	3.1E-11	1.0E-10	1.2E-08
birth+15	2.3E-11	4.4E-11	3.3E-11	3.0E-11	2.3E-07	1.3E-10	2.8E-11	2.6E-11	3.0E-11	1.0E-10	1.2E-08
birth+20	2.3E-11	4.4E-11	3.2E-11	3.0E-11	2.3E-07	1.3E-10	2.8E-11	2.5E-11	3.0E-11	1.0E-10	1.2E-08
-260	4.1E-16	7.8E-16	5.7E-16	5.3E-16	4.1E-12	2.3E-15	4.9E-16	4.5E-16	5.3E-16	1.8E-15	2.1E-13
-52	2.0E-15	3.9E-15	2.9E-15	2.7E-15	2.0E-11	1.2E-14	2.5E-15	2.2E-15	2.7E-15	9.0E-15	1.1E-12
conception	5.3E-13	1.0E-12	7.5E-13	6.9E-13	5.3E-09	3.0E-12	6.4E-13	5.9E-13	6.9E-13	2.3E-12	2.8E-10
lactation	2.3E-11	4.4E-11	3.2E-11	3.0E-11	2.3E-07	1.3E-10	2.8E-11	2.5E-11	3.0E-11	1.0E-10	1.2E-08
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type F fl = 0.98											
-130	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-26	4.2E-16	8.0E-16	5.9E-16	5.5E-16	4.2E-12	2.4E-15	5.1E-16	4.7E-16	5.5E-16	1.9E-15	2.2E-13
conception	8.1E-15	1.6E-14	1.1E-14	1.1E-14	8.2E-11	4.7E-14	9.8E-15	9.0E-15	1.1E-14	3.6E-14	4.3E-12
+5	2.4E-14	4.7E-14	3.4E-14	3.2E-14	2.5E-10	1.4E-13	2.9E-14	2.7E-14	3.2E-14	1.1E-13	1.3E-11
+10	4.8E-14	9.2E-14	6.8E-14	6.3E-14	4.9E-10	2.8E-13	5.8E-14	5.4E-14	6.3E-14	2.1E-13	2.5E-11
+15	9.3E-14	1.8E-13	1.3E-13	1.2E-13	9.3E-10	5.3E-13	1.1E-13	1.0E-13	1.2E-13	4.1E-13	4.9E-11
+25	3.6E-13	6.9E-13	5.1E-13	4.7E-13	3.6E-09	2.1E-12	4.4E-13	4.0E-13	4.7E-13	1.6E-12	1.9E-10
+35	1.2E-12	2.3E-12	1.7E-12	1.6E-12	1.2E-08	6.9E-12	1.4E-12	1.3E-12	1.6E-12	5.3E-12	6.3E-10
birth	1.6E-12	3.1E-12	2.3E-12	2.1E-12	1.6E-08	9.4E-12	2.0E-12	1.8E-12	2.1E-12	7.2E-12	8.5E-10
birth+1	1.6E-11	3.1E-11	2.3E-11	2.1E-11	1.6E-07	9.2E-11	1.9E-11	1.8E-11	2.1E-11	7.1E-11	8.4E-09
birth+5	1.6E-11	3.1E-11	2.3E-11	2.1E-11	1.6E-07	9.2E-11	1.9E-11	1.8E-11	2.1E-11	7.1E-11	8.4E-09
birth+10	1.6E-11	3.1E-11	2.2E-11	2.1E-11	1.6E-07	9.2E-11	1.9E-11	1.8E-11	2.1E-11	7.1E-11	8.4E-09
birth+15	1.6E-11	3.0E-11	2.2E-11	2.1E-11	1.6E-07	9.1E-11	1.9E-11	1.8E-11	2.1E-11	7.0E-11	8.3E-09
birth+20	1.6E-11	3.0E-11	2.2E-11	2.1E-11	1.6E-07	9.0E-11	1.9E-11	1.7E-11	2.1E-11	6.9E-11	8.2E-09
-260	2.8E-16	5.3E-16	3.9E-16	3.6E-16	2.8E-12	1.6E-15	3.4E-16	3.1E-16	3.6E-16	1.2E-15	1.5E-13
-52	1.4E-15	2.6E-15	2.0E-15	1.8E-15	1.4E-11	7.9E-15	1.7E-15	1.5E-15	1.8E-15	6.1E-15	7.2E-13
conception	3.6E-13	6.9E-13	5.1E-13	4.7E-13	3.6E-09	2.1E-12	4.4E-13	4.0E-13	4.7E-13	1.6E-12	1.9E-10
lactation	1.6E-11	3.0E-11	2.2E-11	2.1E-11	1.6E-07	9.0E-11	1.9E-11	1.7E-11	2.1E-11	6.9E-11	8.2E-09

Dose coefficients (Sv/Bq) for the offspring from mothers' milk  
following intake of I-125 (T½ = 60.1 d) by the mother (continued)

Scenario*	Testes	Ovaries	Brain	R.B.M.	Thyroid	Bone sur	Liver	Kidneys	Spleen	Remainder	Effective
Ingestion: f1 = 0.98											
-130	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-26	8.7E-16	1.7E-15	1.2E-15	1.1E-15	8.8E-12	5.0E-15	1.1E-15	9.7E-16	1.1E-15	3.9E-15	4.6E-13
conception	1.7E-14	3.2E-14	2.4E-14	2.2E-14	1.7E-10	9.7E-14	2.0E-14	1.9E-14	2.2E-14	7.5E-14	8.9E-12
+5	5.1E-14	9.7E-14	7.2E-14	6.6E-14	5.1E-10	2.9E-13	6.1E-14	5.6E-14	6.6E-14	2.2E-13	2.7E-11
+10	1.0E-13	1.9E-13	1.4E-13	1.3E-13	1.0E-09	5.8E-13	1.2E-13	1.1E-13	1.3E-13	4.5E-13	5.3E-11
+15	1.9E-13	3.7E-13	2.7E-13	2.5E-13	1.9E-09	1.1E-12	2.3E-13	2.1E-13	2.5E-13	8.5E-13	1.0E-10
+25	7.5E-13	1.4E-12	1.1E-12	9.8E-13	7.5E-09	4.3E-12	9.0E-13	8.3E-13	9.8E-13	3.3E-12	3.9E-10
+35	2.5E-12	4.7E-12	3.5E-12	3.2E-12	2.5E-08	1.4E-11	3.0E-12	2.7E-12	3.2E-12	1.1E-11	1.3E-09
birth	3.4E-12	6.5E-12	4.8E-12	4.5E-12	3.4E-08	2.0E-11	4.1E-12	3.8E-12	4.5E-12	1.5E-11	1.8E-09
birth+1	3.3E-11	6.4E-11	4.7E-11	4.4E-11	3.4E-07	1.9E-10	4.0E-11	3.7E-11	4.4E-11	1.5E-10	1.7E-08
birth+5	3.3E-11	6.4E-11	4.7E-11	4.4E-11	3.4E-07	1.9E-10	4.0E-11	3.7E-11	4.4E-11	1.5E-10	1.7E-08
birth+10	3.3E-11	6.3E-11	4.7E-11	4.3E-11	3.3E-07	1.9E-10	4.0E-11	3.7E-11	4.3E-11	1.5E-10	1.7E-08
birth+15	3.3E-11	6.3E-11	4.6E-11	4.3E-11	3.3E-07	1.9E-10	4.0E-11	3.6E-11	4.3E-11	1.5E-10	1.7E-08
birth+20	3.2E-11	6.2E-11	4.6E-11	4.3E-11	3.3E-07	1.9E-10	3.9E-11	3.6E-11	4.3E-11	1.4E-10	1.7E-08
-260	5.7E-16	1.1E-15	8.1E-16	7.5E-16	5.8E-12	3.3E-15	7.0E-16	6.4E-16	7.5E-16	2.6E-15	3.0E-13
-52	2.9E-15	5.5E-15	4.1E-15	3.8E-15	2.9E-11	1.7E-14	3.5E-15	3.2E-15	3.8E-15	1.3E-14	1.5E-12
conception	7.5E-13	1.4E-12	1.1E-12	9.8E-13	7.6E-09	4.3E-12	9.1E-13	8.3E-13	9.8E-13	3.3E-12	3.9E-10
lactation	3.2E-11	6.2E-11	4.6E-11	4.3E-11	3.3E-07	1.9E-10	3.9E-11	3.6E-11	4.3E-11	1.4E-10	1.7E-08

Dose coefficients (Sv/Bq) for the offspring from mothers' milk  
following intake of I-131 (T½ = 8.04 d) by the mother

Scenario*	Testes	Ovaries	Brain	R.B.M.	Thyroid	Bone sur	Liver	Kidneys	Spleen	Remainder	Effective
Inhalation of elemental iodine vapour											
-130	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-26	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
conception	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+10	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+15	6.8E-19	8.7E-19	9.4E-19	9.3E-19	6.6E-15	1.1E-18	8.6E-19	7.7E-19	8.6E-19	1.4E-18	3.2E-16
+25	4.9E-16	6.3E-16	6.8E-16	6.7E-16	4.8E-12	7.8E-16	6.2E-16	5.5E-16	6.2E-16	1.0E-15	2.3E-13
+35	2.7E-13	3.4E-13	3.7E-13	3.6E-13	2.6E-09	4.3E-13	3.4E-13	3.0E-13	3.4E-13	5.5E-13	1.3E-10
birth	3.2E-12	4.2E-12	4.5E-12	4.4E-12	3.2E-08	5.2E-12	4.1E-12	3.7E-12	4.1E-12	6.8E-12	1.5E-09
birth+1	1.1E-10	1.4E-10	1.5E-10	1.5E-10	1.0E-06	1.7E-10	1.4E-10	1.2E-10	1.4E-10	2.2E-10	5.1E-08
birth+5	1.1E-10	1.4E-10	1.5E-10	1.5E-10	1.0E-06	1.7E-10	1.4E-10	1.2E-10	1.4E-10	2.2E-10	5.1E-08
birth+10	1.1E-10	1.4E-10	1.5E-10	1.5E-10	1.0E-06	1.7E-10	1.4E-10	1.2E-10	1.4E-10	2.2E-10	5.1E-08
birth+15	1.1E-10	1.4E-10	1.5E-10	1.5E-10	1.0E-06	1.7E-10	1.4E-10	1.2E-10	1.4E-10	2.2E-10	5.1E-08
birth+20	1.1E-10	1.4E-10	1.5E-10	1.5E-10	1.0E-06	1.7E-10	1.4E-10	1.2E-10	1.4E-10	2.2E-10	5.1E-08
-260	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-52	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
conception	6.0E-14	7.7E-14	8.3E-14	8.1E-14	5.8E-10	9.6E-14	7.5E-14	6.7E-14	7.5E-14	1.2E-13	2.8E-11
lactation	1.1E-10	1.4E-10	1.5E-10	1.5E-10	1.0E-06	1.7E-10	1.3E-10	1.2E-10	1.3E-10	2.2E-10	5.0E-08
Inhalation of methyl iodide											
-130	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-26	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
conception	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+10	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+15	5.3E-19	6.8E-19	7.4E-19	7.2E-19	5.1E-15	8.5E-19	6.7E-19	6.0E-19	6.7E-19	1.1E-18	2.5E-16
+25	3.8E-16	4.9E-16	5.3E-16	5.2E-16	3.7E-12	6.1E-16	4.8E-16	4.3E-16	4.8E-16	7.9E-16	1.8E-13
+35	2.1E-13	2.7E-13	2.9E-13	2.8E-13	2.0E-09	3.3E-13	2.6E-13	2.3E-13	2.6E-13	4.3E-13	9.8E-11
birth	2.5E-12	3.2E-12	3.4E-12	3.4E-12	2.4E-08	4.0E-12	3.1E-12	2.8E-12	3.1E-12	5.1E-12	1.2E-09
birth+1	8.4E-11	1.1E-10	1.2E-10	1.1E-10	8.2E-07	1.3E-10	1.1E-10	9.5E-11	1.1E-10	1.7E-10	4.0E-08
birth+5	8.4E-11	1.1E-10	1.2E-10	1.1E-10	8.2E-07	1.3E-10	1.1E-10	9.5E-11	1.1E-10	1.7E-10	4.0E-08
birth+10	8.4E-11	1.1E-10	1.2E-10	1.1E-10	8.2E-07	1.3E-10	1.1E-10	9.5E-11	1.1E-10	1.7E-10	4.0E-08
birth+15	8.4E-11	1.1E-10	1.2E-10	1.1E-10	8.2E-07	1.3E-10	1.1E-10	9.5E-11	1.1E-10	1.7E-10	4.0E-08
birth+20	8.4E-11	1.1E-10	1.2E-10	1.1E-10	8.2E-07	1.3E-10	1.1E-10	9.5E-11	1.1E-10	1.7E-10	4.0E-08
-260	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-52	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
conception	4.6E-14	6.0E-14	6.5E-14	6.3E-14	4.5E-10	7.4E-14	5.9E-14	5.2E-14	5.9E-14	9.6E-14	2.2E-11
lactation	8.3E-11	1.1E-10	1.2E-10	1.1E-10	8.1E-07	1.3E-10	1.0E-10	9.4E-11	1.0E-10	1.7E-10	3.9E-08
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type F fl = 0.98											
-130	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-26	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
conception	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+10	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+15	3.6E-19	4.6E-19	5.0E-19	4.9E-19	3.5E-15	5.8E-19	4.5E-19	4.1E-19	4.5E-19	7.5E-19	1.7E-16
+25	2.6E-16	3.3E-16	3.6E-16	3.5E-16	2.5E-12	4.2E-16	3.3E-16	2.9E-16	3.3E-16	5.4E-16	1.2E-13
+35	1.4E-13	1.8E-13	2.0E-13	1.9E-13	1.4E-09	2.3E-13	1.8E-13	1.6E-13	1.8E-13	2.9E-13	6.7E-11
birth	1.7E-12	2.2E-12	2.4E-12	2.4E-12	1.7E-08	2.8E-12	2.2E-12	2.0E-12	2.2E-12	3.6E-12	8.2E-10
birth+1	5.7E-11	7.4E-11	8.0E-11	7.8E-11	5.6E-07	9.2E-11	7.2E-11	6.5E-11	7.2E-11	1.2E-10	2.7E-08
birth+5	5.7E-11	7.4E-11	8.0E-11	7.8E-11	5.6E-07	9.2E-11	7.2E-11	6.5E-11	7.2E-11	1.2E-10	2.7E-08
birth+10	5.7E-11	7.4E-11	8.0E-11	7.8E-11	5.6E-07	9.2E-11	7.2E-11	6.5E-11	7.2E-11	1.2E-10	2.7E-08
birth+15	5.7E-11	7.4E-11	8.0E-11	7.8E-11	5.6E-07	9.2E-11	7.2E-11	6.5E-11	7.2E-11	1.2E-10	2.7E-08
birth+20	5.7E-11	7.4E-11	8.0E-11	7.8E-11	5.6E-07	9.2E-11	7.2E-11	6.5E-11	7.2E-11	1.2E-10	2.7E-08
-260	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-52	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
conception	3.2E-14	4.1E-14	4.4E-14	4.3E-14	3.1E-10	5.1E-14	4.0E-14	3.6E-14	4.0E-14	6.6E-14	1.5E-11
lactation	5.6E-11	7.3E-11	7.9E-11	7.7E-11	5.5E-07	9.1E-11	7.1E-11	6.4E-11	7.1E-11	1.2E-10	2.7E-08

Dose coefficients (Sv/Bq) for the offspring from mothers' milk  
following intake of I-131 (T½ = 8.04 d) by the mother (continued)

Scenario*	Testes	Ovaries	Brain	R.B.M.	Thyroid	Bone sur	Liver	Kidneys	Spleen	Remainder	Effective
Ingestion: f1 = 0.98											
-130	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-26	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
conception	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+10	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
+15	7.5E-19	9.7E-19	1.0E-18	1.0E-18	7.3E-15	1.2E-18	9.5E-19	8.5E-19	9.5E-19	1.6E-18	3.5E-16
+25	5.4E-16	6.9E-16	7.5E-16	7.4E-16	5.2E-12	8.6E-16	6.8E-16	6.1E-16	6.8E-16	1.1E-15	2.6E-13
+35	2.9E-13	3.8E-13	4.1E-13	4.0E-13	2.9E-09	4.7E-13	3.7E-13	3.3E-13	3.7E-13	6.1E-13	1.4E-10
birth	3.6E-12	4.7E-12	5.1E-12	5.0E-12	3.5E-08	5.8E-12	4.6E-12	4.1E-12	4.6E-12	7.6E-12	1.7E-09
birth+1	1.2E-10	1.5E-10	1.7E-10	1.6E-10	1.2E-06	1.9E-10	1.5E-10	1.3E-10	1.5E-10	2.5E-10	5.6E-08
birth+5	1.2E-10	1.5E-10	1.7E-10	1.6E-10	1.2E-06	1.9E-10	1.5E-10	1.3E-10	1.5E-10	2.5E-10	5.6E-08
birth+10	1.2E-10	1.5E-10	1.7E-10	1.6E-10	1.2E-06	1.9E-10	1.5E-10	1.3E-10	1.5E-10	2.5E-10	5.6E-08
birth+15	1.2E-10	1.5E-10	1.7E-10	1.6E-10	1.2E-06	1.9E-10	1.5E-10	1.3E-10	1.5E-10	2.5E-10	5.6E-08
birth+20	1.2E-10	1.5E-10	1.7E-10	1.6E-10	1.2E-06	1.9E-10	1.5E-10	1.3E-10	1.5E-10	2.5E-10	5.6E-08
-260	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-52	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
conception	6.6E-14	8.5E-14	9.2E-14	9.0E-14	6.4E-10	1.1E-13	8.3E-14	7.4E-14	8.3E-14	1.4E-13	3.1E-11
lactation	1.2E-10	1.5E-10	1.6E-10	1.6E-10	1.1E-06	1.9E-10	1.5E-10	1.3E-10	1.5E-10	2.4E-10	5.5E-08



Dose coefficients (Sv/Bq) for the offspring from mothers' milk  
following intake of Cs-137 (T½ = 30.0 y) by the mother

Scenario*	Testes	Ovaries	Brain	R.B.M.	Thyroid	Bone sur	Liver	Kidneys	Spleen	Remainder	Effective
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type F fl = 1.0											
-130	8.4E-15	9.3E-15	8.4E-15	7.9E-15	8.9E-15	8.9E-15	8.9E-15	8.9E-15	8.9E-15	8.4E-15	9.8E-15
-26	7.5E-12	8.3E-12	7.5E-12	7.1E-12	7.9E-12	7.9E-12	7.9E-12	7.9E-12	7.9E-12	7.5E-12	8.7E-12
conception	4.1E-11	4.6E-11	4.1E-11	3.9E-11	4.3E-11	4.3E-11	4.3E-11	4.3E-11	4.3E-11	4.1E-11	4.8E-11
+5	5.9E-11	6.5E-11	5.9E-11	5.5E-11	6.2E-11	6.2E-11	6.2E-11	6.2E-11	6.2E-11	5.9E-11	6.8E-11
+10	8.9E-11	9.9E-11	8.9E-11	8.4E-11	9.4E-11	9.4E-11	9.4E-11	9.4E-11	9.4E-11	8.9E-11	1.0E-10
+15	1.4E-10	1.6E-10	1.4E-10	1.3E-10	1.5E-10	1.5E-10	1.5E-10	1.5E-10	1.5E-10	1.4E-10	1.7E-10
+25	3.8E-10	4.2E-10	3.8E-10	3.6E-10	4.0E-10	4.0E-10	4.0E-10	4.0E-10	4.0E-10	3.8E-10	4.4E-10
+35	1.0E-09	1.1E-09	1.0E-09	9.5E-10	1.1E-09	1.1E-09	1.1E-09	1.1E-09	1.1E-09	1.0E-09	1.2E-09
birth	1.4E-09	1.6E-09	1.4E-09	1.4E-09	1.5E-09	1.5E-09	1.5E-09	1.5E-09	1.5E-09	1.4E-09	1.7E-09
birth+1	1.6E-09	1.7E-09	1.6E-09	1.5E-09	1.7E-09	1.7E-09	1.7E-09	1.7E-09	1.7E-09	1.6E-09	1.8E-09
birth+5	1.5E-09	1.6E-09	1.5E-09	1.4E-09	1.5E-09	1.5E-09	1.5E-09	1.5E-09	1.5E-09	1.5E-09	1.7E-09
birth+10	1.3E-09	1.4E-09	1.3E-09	1.2E-09	1.4E-09	1.4E-09	1.4E-09	1.4E-09	1.4E-09	1.3E-09	1.5E-09
birth+15	1.1E-09	1.2E-09	1.1E-09	1.0E-09	1.1E-09	1.1E-09	1.1E-09	1.1E-09	1.1E-09	1.1E-09	1.2E-09
birth+20	7.4E-10	8.2E-10	7.4E-10	7.0E-10	7.8E-10	7.8E-10	7.8E-10	7.8E-10	7.8E-10	7.4E-10	8.6E-10
-260	2.4E-12	2.7E-12	2.4E-12	2.3E-12	2.6E-12	2.6E-12	2.6E-12	2.6E-12	2.6E-12	2.4E-12	2.8E-12
-52	1.2E-11	1.3E-11	1.2E-11	1.1E-11	1.2E-11	1.2E-11	1.2E-11	1.2E-11	1.2E-11	1.2E-11	1.4E-11
conception	3.6E-10	4.0E-10	3.6E-10	3.4E-10	3.8E-10	3.8E-10	3.8E-10	3.8E-10	3.8E-10	3.6E-10	4.2E-10
lactation	1.1E-09	1.2E-09	1.1E-09	1.0E-09	1.1E-09	1.1E-09	1.1E-09	1.1E-09	1.1E-09	1.1E-09	1.3E-09
Ingestion: fl = 1.0											
-130	1.7E-14	1.9E-14	1.7E-14	1.6E-14	1.8E-14	1.8E-14	1.8E-14	1.8E-14	1.8E-14	1.7E-14	2.0E-14
-26	1.6E-11	1.7E-11	1.6E-11	1.5E-11	1.6E-11	1.6E-11	1.6E-11	1.6E-11	1.6E-11	1.6E-11	1.8E-11
conception	8.5E-11	9.5E-11	8.5E-11	8.1E-11	9.0E-11	9.0E-11	9.0E-11	9.0E-11	9.0E-11	8.5E-11	1.0E-10
+5	1.2E-10	1.4E-10	1.2E-10	1.1E-10	1.3E-10	1.3E-10	1.3E-10	1.3E-10	1.3E-10	1.2E-10	1.4E-10
+10	1.8E-10	2.1E-10	1.8E-10	1.7E-10	1.9E-10	1.9E-10	1.9E-10	1.9E-10	1.9E-10	1.8E-10	2.2E-10
+15	3.0E-10	3.3E-10	3.0E-10	2.8E-10	3.1E-10	3.1E-10	3.1E-10	3.1E-10	3.1E-10	3.0E-10	3.5E-10
+25	7.9E-10	8.7E-10	7.9E-10	7.4E-10	8.3E-10	8.3E-10	8.3E-10	8.3E-10	8.3E-10	7.9E-10	9.2E-10
+35	2.1E-09	2.3E-09	2.1E-09	2.0E-09	2.2E-09	2.2E-09	2.2E-09	2.2E-09	2.2E-09	2.1E-09	2.4E-09
birth	3.0E-09	3.3E-09	3.0E-09	2.8E-09	3.1E-09	3.1E-09	3.1E-09	3.1E-09	3.1E-09	3.0E-09	3.5E-09
birth+1	3.3E-09	3.6E-09	3.3E-09	3.1E-09	3.4E-09	3.4E-09	3.4E-09	3.4E-09	3.4E-09	3.3E-09	3.8E-09
birth+5	3.0E-09	3.4E-09	3.0E-09	2.9E-09	3.2E-09	3.2E-09	3.2E-09	3.2E-09	3.2E-09	3.0E-09	3.6E-09
birth+10	2.7E-09	3.0E-09	2.7E-09	2.5E-09	2.8E-09	2.8E-09	2.8E-09	2.8E-09	2.8E-09	2.7E-09	3.1E-09
birth+15	2.2E-09	2.4E-09	2.2E-09	2.1E-09	2.3E-09	2.3E-09	2.3E-09	2.3E-09	2.3E-09	2.2E-09	2.6E-09
birth+20	1.5E-09	1.7E-09	1.5E-09	1.4E-09	1.6E-09	1.6E-09	1.6E-09	1.6E-09	1.6E-09	1.5E-09	1.8E-09
-260	5.0E-12	5.6E-12	5.0E-12	4.8E-12	5.3E-12	5.3E-12	5.3E-12	5.3E-12	5.3E-12	5.0E-12	5.9E-12
-52	2.4E-11	2.7E-11	2.4E-11	2.3E-11	2.6E-11	2.6E-11	2.6E-11	2.6E-11	2.6E-11	2.4E-11	2.8E-11
conception	7.4E-10	8.2E-10	7.4E-10	7.0E-10	7.8E-10	7.8E-10	7.8E-10	7.8E-10	7.8E-10	7.4E-10	8.6E-10
lactation	2.2E-09	2.5E-09	2.2E-09	2.1E-09	2.4E-09	2.4E-09	2.4E-09	2.4E-09	2.4E-09	2.2E-09	2.6E-09

Dose coefficients (Sv/Bq) for the offspring from mothers' milk  
following intake of Pb-210 (T½ = 22.3 y) by the mother

Scenario*	Testes	Ovaries	Brain	R.B.M.	Thyroid	Bone sur	Liver	Kidneys	Spleen	Remainder	Effective
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type F fl = 0.2											
-130	1.6E-09	1.6E-09	1.6E-09	2.3E-08	1.6E-09	4.8E-08	2.9E-08	4.9E-08	5.6E-08	1.5E-08	6.7E-09
-26	4.0E-09	4.0E-09	4.0E-09	5.9E-08	4.0E-09	1.3E-07	7.4E-08	1.2E-07	1.4E-07	3.5E-08	1.7E-08
conception	7.8E-09	7.8E-09	7.8E-09	1.2E-07	7.8E-09	2.5E-07	1.4E-07	2.4E-07	2.7E-07	6.2E-08	3.3E-08
+5	9.2E-09	9.2E-09	9.2E-09	1.4E-07	9.2E-09	3.0E-07	1.7E-07	2.9E-07	3.2E-07	7.2E-08	3.9E-08
+10	1.1E-08	1.1E-08	1.1E-08	1.7E-07	1.1E-08	3.7E-07	2.1E-07	3.4E-07	3.9E-07	8.4E-08	4.7E-08
+15	1.4E-08	1.4E-08	1.4E-08	2.1E-07	1.4E-08	4.7E-07	2.5E-07	4.2E-07	4.8E-07	9.9E-08	5.7E-08
+25	2.2E-08	2.2E-08	2.2E-08	3.4E-07	2.2E-08	7.9E-07	4.1E-07	6.9E-07	7.7E-07	1.4E-07	9.3E-08
+35	5.0E-08	5.0E-08	5.0E-08	7.5E-07	5.0E-08	1.9E-06	9.1E-07	1.5E-06	1.7E-06	2.0E-07	2.0E-07
birth	7.7E-08	7.7E-08	7.7E-08	1.2E-06	7.7E-08	3.1E-06	1.4E-06	2.4E-06	2.6E-06	2.3E-07	3.1E-07
birth+1	1.0E-07	1.0E-07	1.0E-07	1.6E-06	1.0E-07	4.2E-06	1.9E-06	3.2E-06	3.5E-06	2.6E-07	4.2E-07
birth+5	1.0E-07	1.0E-07	1.0E-07	1.5E-06	1.0E-07	4.1E-06	1.8E-06	3.1E-06	3.4E-06	2.4E-07	4.1E-07
birth+10	9.7E-08	9.7E-08	9.7E-08	1.5E-06	9.7E-08	4.0E-06	1.8E-06	2.9E-06	3.2E-06	2.1E-07	3.9E-07
birth+15	8.9E-08	8.9E-08	8.9E-08	1.4E-06	8.9E-08	3.7E-06	1.6E-06	2.7E-06	3.0E-06	1.8E-07	3.6E-07
birth+20	7.5E-08	7.5E-08	7.5E-08	1.1E-06	7.5E-08	3.1E-06	1.4E-06	2.3E-06	2.5E-06	1.3E-07	3.0E-07
-260	2.1E-09	2.1E-09	2.1E-09	3.1E-08	2.1E-09	6.5E-08	3.9E-08	6.5E-08	7.4E-08	1.9E-08	8.8E-09
-52	4.4E-09	4.4E-09	4.4E-09	6.6E-08	4.4E-09	1.4E-07	8.2E-08	1.4E-07	1.6E-07	3.8E-08	1.9E-08
conception	2.2E-08	2.2E-08	2.2E-08	3.3E-07	2.2E-08	8.0E-07	4.1E-07	6.8E-07	7.6E-07	1.2E-07	9.1E-08
lactation	8.6E-08	8.6E-08	8.6E-08	1.3E-06	8.6E-08	3.5E-06	1.6E-06	2.6E-06	2.9E-06	1.8E-07	3.5E-07
Ingestion: fl = 0.2											
-130	9.9E-10	9.9E-10	9.9E-10	1.5E-08	9.9E-10	3.0E-08	1.8E-08	3.1E-08	3.5E-08	9.3E-09	4.2E-09
-26	2.5E-09	2.5E-09	2.5E-09	3.7E-08	2.5E-09	7.9E-08	4.7E-08	7.8E-08	8.9E-08	2.2E-08	1.1E-08
conception	4.9E-09	4.9E-09	4.9E-09	7.3E-08	4.9E-09	1.6E-07	9.0E-08	1.5E-07	1.7E-07	3.9E-08	2.0E-08
+5	5.8E-09	5.8E-09	5.8E-09	8.7E-08	5.8E-09	1.9E-07	1.1E-07	1.8E-07	2.0E-07	4.5E-08	2.4E-08
+10	7.0E-09	7.0E-09	7.0E-09	1.0E-07	7.0E-09	2.3E-07	1.3E-07	2.2E-07	2.5E-07	5.3E-08	2.9E-08
+15	8.7E-09	8.7E-09	8.7E-09	1.3E-07	8.7E-09	2.9E-07	1.6E-07	2.7E-07	3.0E-07	6.2E-08	3.6E-08
+25	1.4E-08	1.4E-08	1.4E-08	2.1E-07	1.4E-08	5.0E-07	2.6E-07	4.3E-07	4.9E-07	8.7E-08	5.8E-08
+35	3.1E-08	3.1E-08	3.1E-08	4.7E-07	3.1E-08	1.2E-06	5.7E-07	9.6E-07	1.1E-06	1.2E-07	1.3E-07
birth	4.9E-08	4.9E-08	4.9E-08	7.4E-07	4.9E-08	1.9E-06	8.9E-07	1.5E-06	1.6E-06	1.4E-07	2.0E-07
birth+1	6.6E-08	6.6E-08	6.6E-08	1.0E-06	6.6E-08	2.7E-06	1.2E-06	2.0E-06	2.2E-06	1.7E-07	2.7E-07
birth+5	6.4E-08	6.4E-08	6.4E-08	9.7E-07	6.4E-08	2.6E-06	1.2E-06	1.9E-06	2.1E-06	1.5E-07	2.6E-07
birth+10	6.1E-08	6.1E-08	6.1E-08	9.2E-07	6.1E-08	2.5E-06	1.1E-06	1.9E-06	2.0E-06	1.3E-07	2.4E-07
birth+15	5.6E-08	5.6E-08	5.6E-08	8.5E-07	5.6E-08	2.3E-06	1.0E-06	1.7E-06	1.9E-06	1.1E-07	2.2E-07
birth+20	4.7E-08	4.7E-08	4.7E-08	7.2E-07	4.7E-08	2.0E-06	8.6E-07	1.4E-06	1.6E-06	8.2E-08	1.9E-07
-260	1.3E-09	1.3E-09	1.3E-09	2.0E-08	1.3E-09	4.1E-08	2.4E-08	4.1E-08	4.6E-08	1.2E-08	5.6E-09
-52	2.8E-09	2.8E-09	2.8E-09	4.1E-08	2.8E-09	8.8E-08	5.1E-08	8.6E-08	9.8E-08	2.4E-08	1.2E-08
conception	1.4E-08	1.4E-08	1.4E-08	2.1E-07	1.4E-08	5.0E-07	2.6E-07	4.3E-07	4.8E-07	7.7E-08	5.7E-08
lactation	5.4E-08	5.4E-08	5.4E-08	8.2E-07	5.4E-08	2.2E-06	9.8E-07	1.7E-06	1.8E-06	1.1E-07	2.2E-07

Dose coefficients (Sv/Bq) for the offspring from mothers' milk  
following intake of Po-210 (T½ = 138 d) by the mother

Scenario*	Testes	Ovaries	Brain	R.B.M.	Thyroid	Bone sur	Liver	Kidneys	Spleen	Remainder	Effective
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type F fl = 0.1											
-130	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-26	5.8E-12	5.8E-12	5.8E-12	8.2E-11	5.8E-12	8.1E-11	1.1E-10	1.8E-10	2.2E-10	1.2E-10	2.6E-11
conception	1.2E-10	1.2E-10	1.2E-10	1.8E-09	1.2E-10	1.7E-09	2.4E-09	3.9E-09	4.8E-09	2.6E-09	5.6E-10
+5	2.2E-10	2.2E-10	2.2E-10	3.2E-09	2.2E-10	3.2E-09	4.3E-09	7.1E-09	8.7E-09	4.7E-09	1.0E-09
+10	4.2E-10	4.2E-10	4.2E-10	5.9E-09	4.2E-10	5.8E-09	8.0E-09	1.3E-08	1.6E-08	8.7E-09	1.9E-09
+15	7.8E-10	7.8E-10	7.8E-10	1.1E-08	7.8E-10	1.1E-08	1.5E-08	2.5E-08	3.0E-08	1.6E-08	3.6E-09
+25	3.1E-09	3.1E-09	3.1E-09	4.4E-08	3.1E-09	4.4E-08	6.0E-08	9.8E-08	1.2E-07	6.6E-08	1.4E-08
+35	1.6E-08	1.6E-08	1.6E-08	2.3E-07	1.6E-08	2.3E-07	3.1E-07	5.1E-07	6.3E-07	3.4E-07	7.4E-08
birth	2.9E-08	2.9E-08	2.9E-08	4.1E-07	2.9E-08	4.0E-07	5.5E-07	9.1E-07	1.1E-06	6.0E-07	1.3E-07
birth+1	4.4E-08	4.4E-08	4.4E-08	6.2E-07	4.4E-08	6.1E-07	8.5E-07	1.4E-06	1.7E-06	9.2E-07	2.0E-07
birth+5	4.3E-08	4.3E-08	4.3E-08	6.2E-07	4.3E-08	6.1E-07	8.4E-07	1.4E-06	1.7E-06	9.1E-07	2.0E-07
birth+10	4.2E-08	4.2E-08	4.2E-08	6.0E-07	4.2E-08	5.9E-07	8.2E-07	1.3E-06	1.6E-06	8.9E-07	1.9E-07
birth+15	4.0E-08	4.0E-08	4.0E-08	5.7E-07	4.0E-08	5.6E-07	7.7E-07	1.3E-06	1.5E-06	8.4E-07	1.8E-07
birth+20	3.4E-08	3.4E-08	3.4E-08	4.8E-07	3.4E-08	4.8E-07	6.6E-07	1.1E-06	1.3E-06	7.2E-07	1.6E-07
-260	4.0E-12	4.0E-12	4.0E-12	5.7E-11	4.0E-12	5.6E-11	7.8E-11	1.3E-10	1.6E-10	8.5E-11	1.8E-11
-52	2.0E-11	2.0E-11	2.0E-11	2.8E-10	2.0E-11	2.8E-10	3.9E-10	6.3E-10	7.7E-10	4.2E-10	9.1E-11
conception	4.3E-09	4.3E-09	4.3E-09	6.2E-08	4.3E-09	6.1E-08	8.4E-08	1.4E-07	1.7E-07	9.1E-08	2.0E-08
lactation	3.8E-08	3.8E-08	3.8E-08	5.4E-07	3.8E-08	5.3E-07	7.3E-07	1.2E-06	1.5E-06	8.0E-07	1.7E-07
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type M fl = 0.1											
-130	9.2E-15	9.2E-15	9.2E-15	1.3E-13	9.2E-15	1.3E-13	1.8E-13	2.9E-13	3.6E-13	1.9E-13	4.2E-14
-26	2.5E-11	2.5E-11	2.5E-11	3.6E-10	2.5E-11	3.5E-10	4.8E-10	7.9E-10	9.7E-10	5.3E-10	1.1E-10
conception	2.0E-10	2.0E-10	2.0E-10	2.8E-09	2.0E-10	2.8E-09	3.8E-09	6.3E-09	7.7E-09	4.2E-09	9.1E-10
+5	3.0E-10	3.0E-10	3.0E-10	4.3E-09	3.0E-10	4.2E-09	5.8E-09	9.5E-09	1.2E-08	6.3E-09	1.4E-09
+10	4.6E-10	4.6E-10	4.6E-10	6.5E-09	4.6E-10	6.4E-09	8.8E-09	1.4E-08	1.8E-08	9.7E-09	2.1E-09
+15	7.1E-10	7.1E-10	7.1E-10	1.0E-08	7.1E-10	1.0E-08	1.4E-08	2.2E-08	2.7E-08	1.5E-08	3.2E-09
+25	1.9E-09	1.9E-09	1.9E-09	2.7E-08	1.9E-09	2.6E-08	3.6E-08	5.9E-08	7.2E-08	3.9E-08	8.5E-09
+35	6.3E-09	6.3E-09	6.3E-09	9.0E-08	6.3E-09	8.8E-08	1.2E-07	2.0E-07	2.4E-07	1.3E-07	2.9E-08
birth	9.9E-09	9.9E-09	9.9E-09	1.4E-07	9.9E-09	1.4E-07	1.9E-07	3.1E-07	3.8E-07	2.1E-07	4.5E-08
birth+1	1.4E-08	1.4E-08	1.4E-08	1.9E-07	1.4E-08	1.9E-07	2.6E-07	4.3E-07	5.3E-07	2.9E-07	6.2E-08
birth+5	1.3E-08	1.3E-08	1.3E-08	1.9E-07	1.3E-08	1.9E-07	2.6E-07	4.2E-07	5.2E-07	2.8E-07	6.1E-08
birth+10	1.3E-08	1.3E-08	1.3E-08	1.8E-07	1.3E-08	1.8E-07	2.5E-07	4.0E-07	4.9E-07	2.7E-07	5.8E-08
birth+15	1.2E-08	1.2E-08	1.2E-08	1.7E-07	1.2E-08	1.6E-07	2.3E-07	3.7E-07	4.5E-07	2.5E-07	5.3E-08
birth+20	9.5E-09	9.5E-09	9.5E-09	1.4E-07	9.5E-09	1.3E-07	1.8E-07	3.0E-07	3.7E-07	2.0E-07	4.4E-08
-260	9.6E-12	9.6E-12	9.6E-12	1.4E-10	9.6E-12	1.3E-10	1.9E-10	3.0E-10	3.7E-10	2.0E-10	4.4E-11
-52	4.7E-11	4.7E-11	4.7E-11	6.7E-10	4.7E-11	6.6E-10	9.1E-10	1.5E-09	1.8E-09	9.9E-10	2.1E-10
conception	2.0E-09	2.0E-09	2.0E-09	2.9E-08	2.0E-09	2.8E-08	3.9E-08	6.4E-08	7.8E-08	4.3E-08	9.2E-09
lactation	1.1E-08	1.1E-08	1.1E-08	1.6E-07	1.1E-08	1.6E-07	2.2E-07	3.5E-07	4.3E-07	2.4E-07	5.1E-08
Ingestion: fl = 0.1											
-130	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
-26	2.4E-12	2.4E-12	2.4E-12	3.4E-11	2.4E-12	3.4E-11	4.6E-11	7.6E-11	9.2E-11	5.0E-11	1.1E-11
conception	5.1E-11	5.1E-11	5.1E-11	7.2E-10	5.1E-11	7.1E-10	9.8E-10	1.6E-09	2.0E-09	1.1E-09	2.3E-10
+5	9.3E-11	9.3E-11	9.3E-11	1.3E-09	9.3E-11	1.3E-09	1.8E-09	2.9E-09	3.6E-09	2.0E-09	4.2E-10
+10	1.7E-10	1.7E-10	1.7E-10	2.4E-09	1.7E-10	2.4E-09	3.3E-09	5.4E-09	6.6E-09	3.6E-09	7.8E-10
+15	3.2E-10	3.2E-10	3.2E-10	4.6E-09	3.2E-10	4.5E-09	6.2E-09	1.0E-08	1.2E-08	6.8E-09	1.5E-09
+25	1.3E-09	1.3E-09	1.3E-09	1.8E-08	1.3E-09	1.8E-08	2.5E-08	4.1E-08	5.0E-08	2.7E-08	5.9E-09
+35	6.7E-09	6.7E-09	6.7E-09	9.5E-08	6.7E-09	9.4E-08	1.3E-07	2.1E-07	2.6E-07	1.4E-07	3.1E-08
birth	1.2E-08	1.2E-08	1.2E-08	1.7E-07	1.2E-08	1.7E-07	2.3E-07	3.8E-07	4.6E-07	2.5E-07	5.5E-08
birth+1	1.8E-08	1.8E-08	1.8E-08	2.6E-07	1.8E-08	2.5E-07	3.5E-07	5.7E-07	7.0E-07	3.8E-07	8.2E-08
birth+5	1.8E-08	1.8E-08	1.8E-08	2.5E-07	1.8E-08	2.5E-07	3.4E-07	5.6E-07	6.9E-07	3.8E-07	8.2E-08
birth+10	1.7E-08	1.7E-08	1.7E-08	2.5E-07	1.7E-08	2.4E-07	3.4E-07	5.5E-07	6.7E-07	3.7E-07	8.0E-08
birth+15	1.6E-08	1.6E-08	1.6E-08	2.3E-07	1.6E-08	2.3E-07	3.2E-07	5.2E-07	6.3E-07	3.5E-07	7.5E-08
birth+20	1.4E-08	1.4E-08	1.4E-08	2.0E-07	1.4E-08	2.0E-07	2.7E-07	4.4E-07	5.4E-07	3.0E-07	6.4E-08
-260	1.7E-12	1.7E-12	1.7E-12	2.4E-11	1.7E-12	2.3E-11	3.2E-11	5.2E-11	6.4E-11	3.5E-11	7.6E-12
-52	8.3E-12	8.3E-12	8.3E-12	1.2E-10	8.3E-12	1.2E-10	1.6E-10	2.6E-10	3.2E-10	1.7E-10	3.8E-11
conception	1.8E-09	1.8E-09	1.8E-09	2.5E-08	1.8E-09	2.5E-08	3.5E-08	5.7E-08	6.9E-08	3.8E-08	8.2E-09
lactation	1.6E-08	1.6E-08	1.6E-08	2.2E-07	1.6E-08	2.2E-07	3.0E-07	4.9E-07	6.0E-07	3.3E-07	7.1E-08

Dose coefficients (Sv/Bq) for the offspring from mothers' milk  
following intake of Ra-226 ( $T_{1/2} = 1.60E+03$  y) by the mother

Scenario*	Testes	Ovaries	Brain	R.B.M.	Thyroid	Bone sur	Liver	Kidneys	Spleen	Remainder	Effective
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type M fl = 0.2											
-130	4.6E-12	4.5E-12	4.5E-12	1.3E-10	4.5E-12	9.2E-10	4.9E-11	5.1E-11	5.7E-11	1.6E-11	3.3E-11
-26	2.8E-11	2.7E-11	2.7E-11	9.9E-10	2.7E-11	7.9E-09	2.0E-10	6.0E-11	6.3E-11	3.3E-11	2.4E-10
conception	7.5E-11	7.3E-11	7.2E-11	2.7E-09	7.2E-11	2.2E-08	5.3E-10	1.2E-10	1.2E-10	7.7E-11	6.4E-10
+5	9.3E-11	9.1E-11	9.0E-11	3.4E-09	9.0E-11	2.7E-08	6.5E-10	1.4E-10	1.4E-10	9.5E-11	7.9E-10
+10	1.2E-10	1.1E-10	1.1E-10	4.2E-09	1.1E-10	3.4E-08	8.2E-10	1.8E-10	1.8E-10	1.2E-10	9.9E-10
+15	1.5E-10	1.5E-10	1.4E-10	5.4E-09	1.4E-10	4.3E-08	1.0E-09	2.2E-10	2.2E-10	1.5E-10	1.3E-09
+25	2.7E-10	2.7E-10	2.6E-10	9.8E-09	2.6E-10	7.9E-08	1.9E-09	3.4E-10	3.3E-10	2.6E-10	2.3E-09
+35	5.6E-10	5.5E-10	5.4E-10	2.0E-08	5.4E-10	1.6E-07	3.9E-09	7.1E-10	6.8E-10	5.4E-10	4.8E-09
birth	1.3E-09	1.2E-09	1.2E-09	4.6E-08	1.2E-09	3.7E-07	8.7E-09	1.6E-09	1.5E-09	1.2E-09	1.1E-08
birth+1	2.2E-09	2.1E-09	2.1E-09	8.0E-08	2.1E-09	6.4E-07	1.5E-08	2.7E-09	2.7E-09	2.1E-09	1.9E-08
birth+5	2.2E-09	2.1E-09	2.1E-09	7.8E-08	2.1E-09	6.3E-07	1.5E-08	2.7E-09	2.6E-09	2.1E-09	1.8E-08
birth+10	2.1E-09	2.0E-09	2.0E-09	7.6E-08	2.0E-09	6.1E-07	1.4E-08	2.6E-09	2.5E-09	2.0E-09	1.8E-08
birth+15	2.0E-09	2.0E-09	1.9E-09	7.2E-08	1.9E-09	5.8E-07	1.4E-08	2.5E-09	2.4E-09	1.9E-09	1.7E-08
birth+20	1.9E-09	1.8E-09	1.8E-09	6.8E-08	1.8E-09	5.4E-07	1.3E-08	2.3E-09	2.3E-09	1.8E-09	1.6E-08
-260	1.1E-11	1.1E-11	1.0E-11	3.6E-10	1.0E-11	2.7E-09	9.1E-11	5.7E-11	6.3E-11	2.2E-11	8.6E-11
-52	3.3E-11	3.2E-11	3.2E-11	1.2E-09	3.2E-11	9.4E-09	2.4E-10	6.8E-11	7.0E-11	3.8E-11	2.8E-10
conception	2.5E-10	2.5E-10	2.5E-10	9.2E-09	2.5E-10	7.4E-08	1.8E-09	3.6E-10	3.5E-10	2.5E-10	2.2E-09
lactation	2.0E-09	2.0E-09	1.9E-09	7.2E-08	1.9E-09	5.8E-07	1.4E-08	2.5E-09	2.4E-09	1.9E-09	1.7E-08
Ingestion											
-130	5.9E-12	5.8E-12	5.7E-12	1.6E-10	5.7E-12	1.1E-09	6.6E-11	7.2E-11	8.1E-11	2.2E-11	4.1E-11
-26	6.4E-12	6.3E-12	6.2E-12	2.0E-10	6.2E-12	1.5E-09	5.7E-11	4.2E-11	4.6E-11	1.4E-11	5.0E-11
conception	1.1E-11	1.0E-11	1.0E-11	3.6E-10	1.0E-11	2.8E-09	8.4E-11	4.4E-11	4.8E-11	1.7E-11	8.6E-11
+5	1.6E-11	1.5E-11	1.5E-11	5.4E-10	1.5E-11	4.2E-09	1.2E-10	5.7E-11	6.1E-11	2.3E-11	1.3E-10
+10	2.4E-11	2.4E-11	2.4E-11	8.5E-10	2.4E-11	6.7E-09	1.9E-10	7.4E-11	7.9E-11	3.3E-11	2.0E-10
+15	4.3E-11	4.2E-11	4.1E-11	1.5E-09	4.1E-11	1.2E-08	3.2E-10	1.1E-10	1.1E-10	5.2E-11	3.6E-10
+25	1.5E-10	1.5E-10	1.4E-10	5.5E-09	1.4E-10	4.4E-08	1.0E-09	1.9E-10	1.8E-10	1.4E-10	1.3E-09
+35	4.7E-10	4.6E-10	4.5E-10	1.7E-08	4.5E-10	1.4E-07	3.3E-09	5.9E-10	5.8E-10	4.5E-10	4.0E-09
birth	1.8E-09	1.8E-09	1.7E-09	6.6E-08	1.7E-09	5.3E-07	1.3E-08	2.3E-09	2.2E-09	1.7E-09	1.6E-08
birth+1	3.3E-09	3.2E-09	3.2E-09	1.2E-07	3.2E-09	9.6E-07	2.3E-08	4.1E-09	4.0E-09	3.2E-09	2.8E-08
birth+5	3.3E-09	3.2E-09	3.2E-09	1.2E-07	3.2E-09	9.6E-07	2.3E-08	4.1E-09	4.0E-09	3.2E-09	2.8E-08
birth+10	3.3E-09	3.2E-09	3.2E-09	1.2E-07	3.2E-09	9.5E-07	2.3E-08	4.1E-09	4.0E-09	3.2E-09	2.8E-08
birth+15	3.2E-09	3.2E-09	3.1E-09	1.2E-07	3.1E-09	9.4E-07	2.2E-08	4.0E-09	3.9E-09	3.1E-09	2.8E-08
birth+20	3.1E-09	3.1E-09	3.0E-09	1.1E-07	3.0E-09	9.1E-07	2.2E-08	3.9E-09	3.8E-09	3.0E-09	2.7E-08
-260	6.0E-12	5.9E-12	5.9E-12	1.7E-10	5.9E-12	1.2E-09	6.5E-11	6.8E-11	7.7E-11	2.2E-11	4.3E-11
-52	6.9E-12	6.8E-12	6.7E-12	2.2E-10	6.7E-12	1.7E-09	6.1E-11	4.4E-11	4.8E-11	1.5E-11	5.4E-11
conception	1.6E-10	1.6E-10	1.6E-10	5.8E-09	1.6E-10	4.6E-08	1.1E-09	2.6E-10	2.6E-10	1.7E-10	1.4E-09
lactation	3.2E-09	3.2E-09	3.1E-09	1.2E-07	3.1E-09	9.4E-07	2.2E-08	4.0E-09	3.9E-09	3.1E-09	2.8E-08

Dose coefficients (Sv/Bq) for the offspring from mothers' milk  
following intake of Th-228 (T½ = 1.91 y) by the mother

Scenario*	Testes	Ovaries	Brain	R.B.M.	Thyroid	Bone sur	Liver	Kidneys	Spleen	Remainder	Effective
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type M fl = 0.0005											
-130	2.1E-09	2.1E-09	2.1E-09	7.2E-08	2.1E-09	7.1E-07	7.8E-09	1.3E-08	2.1E-09	2.3E-09	1.8E-08
-26	4.6E-09	4.6E-09	4.6E-09	1.6E-07	4.6E-09	1.6E-06	1.7E-08	2.9E-08	4.6E-09	5.0E-09	4.0E-08
conception	5.5E-09	5.5E-09	5.5E-09	1.9E-07	5.5E-09	1.9E-06	2.1E-08	3.5E-08	5.5E-09	5.9E-09	4.8E-08
+5	5.7E-09	5.7E-09	5.6E-09	1.9E-07	5.6E-09	1.9E-06	2.2E-08	3.6E-08	5.6E-09	6.1E-09	4.9E-08
+10	5.9E-09	5.8E-09	5.7E-09	2.0E-07	5.7E-09	2.0E-06	2.2E-08	3.7E-08	5.7E-09	6.2E-09	5.0E-08
+15	6.0E-09	6.0E-09	5.8E-09	2.0E-07	5.8E-09	2.0E-06	2.3E-08	3.8E-08	5.9E-09	6.4E-09	5.1E-08
+25	6.2E-09	6.2E-09	6.0E-09	2.1E-07	6.0E-09	2.0E-06	2.4E-08	3.9E-08	6.0E-09	6.5E-09	5.2E-08
+35	6.3E-09	6.2E-09	5.9E-09	2.1E-07	5.9E-09	2.0E-06	2.6E-08	3.9E-08	5.9E-09	6.5E-09	5.2E-08
birth	6.5E-09	6.3E-09	5.9E-09	2.1E-07	5.9E-09	2.0E-06	2.7E-08	3.9E-08	5.9E-09	6.4E-09	5.2E-08
birth+1	7.1E-09	6.9E-09	6.1E-09	2.2E-07	6.1E-09	2.0E-06	3.2E-08	4.0E-08	6.1E-09	6.6E-09	5.4E-08
birth+5	6.2E-09	5.9E-09	5.2E-09	1.9E-07	5.2E-09	1.7E-06	2.9E-08	3.5E-08	5.2E-09	5.6E-09	4.6E-08
birth+10	5.0E-09	4.7E-09	4.0E-09	1.5E-07	4.0E-09	1.3E-06	2.4E-08	2.7E-08	4.0E-09	4.4E-09	3.6E-08
birth+15	3.7E-09	3.5E-09	2.9E-09	1.1E-07	2.9E-09	9.0E-07	1.9E-08	2.0E-08	2.9E-09	3.1E-09	2.6E-08
birth+20	2.5E-09	2.3E-09	1.8E-09	6.7E-08	1.8E-09	5.3E-07	1.4E-08	1.2E-08	1.8E-09	1.9E-09	1.6E-08
-260	2.5E-09	2.5E-09	2.4E-09	8.5E-08	2.4E-09	8.4E-07	9.3E-09	1.6E-08	2.4E-09	2.7E-09	2.1E-08
-52	4.7E-09	4.7E-09	4.6E-09	1.6E-07	4.6E-09	1.6E-06	1.8E-08	3.0E-08	4.6E-09	5.0E-09	4.0E-08
conception	6.0E-09	6.0E-09	5.8E-09	2.0E-07	5.8E-09	2.0E-06	2.4E-08	3.8E-08	5.8E-09	6.4E-09	5.1E-08
lactation	4.2E-09	4.0E-09	3.4E-09	1.2E-07	3.4E-09	1.1E-06	2.1E-08	2.3E-08	3.4E-09	3.7E-09	3.0E-08
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type S fl = 0.0002											
-130	1.2E-10	1.2E-10	1.2E-10	4.1E-09	1.2E-10	4.0E-08	4.5E-10	7.5E-10	1.2E-10	1.3E-10	1.0E-09
-26	1.7E-10	1.7E-10	1.7E-10	5.8E-09	1.7E-10	5.6E-08	6.7E-10	1.1E-09	1.7E-10	1.8E-10	1.4E-09
conception	1.7E-10	1.7E-10	1.6E-10	5.7E-09	1.6E-10	5.5E-08	6.8E-10	1.1E-09	1.6E-10	1.8E-10	1.4E-09
+5	1.7E-10	1.7E-10	1.6E-10	5.6E-09	1.6E-10	5.4E-08	6.7E-10	1.0E-09	1.6E-10	1.7E-10	1.4E-09
+10	1.7E-10	1.6E-10	1.6E-10	5.5E-09	1.6E-10	5.3E-08	6.6E-10	1.0E-09	1.6E-10	1.7E-10	1.4E-09
+15	1.6E-10	1.6E-10	1.5E-10	5.4E-09	1.5E-10	5.2E-08	6.6E-10	1.0E-09	1.5E-10	1.7E-10	1.3E-09
+25	1.6E-10	1.5E-10	1.4E-10	5.1E-09	1.4E-10	4.9E-08	6.4E-10	9.5E-10	1.4E-10	1.6E-10	1.3E-09
+35	1.6E-10	1.6E-10	1.5E-10	5.1E-09	1.5E-10	4.8E-08	6.6E-10	9.7E-10	1.5E-10	1.6E-10	1.3E-09
birth	1.7E-10	1.7E-10	1.6E-10	5.4E-09	1.6E-10	5.1E-08	7.3E-10	1.0E-09	1.6E-10	1.7E-10	1.3E-09
birth+1	2.0E-10	1.9E-10	1.8E-10	6.2E-09	1.8E-10	5.8E-08	8.6E-10	1.2E-09	1.8E-10	1.9E-10	1.5E-09
birth+5	1.7E-10	1.7E-10	1.6E-10	5.5E-09	1.6E-10	5.1E-08	7.7E-10	1.0E-09	1.6E-10	1.7E-10	1.4E-09
birth+10	1.5E-10	1.4E-10	1.3E-10	4.6E-09	1.3E-10	4.2E-08	6.5E-10	8.6E-10	1.3E-10	1.4E-10	1.1E-09
birth+15	1.2E-10	1.1E-10	1.0E-10	3.6E-09	1.0E-10	3.3E-08	5.2E-10	6.8E-10	1.0E-10	1.1E-10	8.9E-10
birth+20	8.5E-11	8.2E-11	7.3E-11	2.6E-09	7.3E-11	2.4E-08	3.8E-10	4.9E-10	7.3E-11	7.9E-11	6.4E-10
-260	1.2E-10	1.2E-10	1.2E-10	4.1E-09	1.2E-10	4.0E-08	4.6E-10	7.5E-10	1.2E-10	1.3E-10	1.0E-09
-52	1.7E-10	1.7E-10	1.6E-10	5.7E-09	1.6E-10	5.6E-08	6.7E-10	1.1E-09	1.6E-10	1.8E-10	1.4E-09
conception	1.6E-10	1.6E-10	1.5E-10	5.3E-09	1.5E-10	5.1E-08	6.6E-10	9.9E-10	1.5E-10	1.6E-10	1.3E-09
lactation	1.3E-10	1.2E-10	1.1E-10	3.9E-09	1.1E-10	3.6E-08	5.6E-10	7.4E-10	1.1E-10	1.2E-10	9.7E-10
Ingestion: fl = 0.0005											
-130	1.7E-11	1.7E-11	1.7E-11	6.0E-10	1.7E-11	5.9E-09	6.5E-11	1.1E-10	1.7E-11	1.9E-11	1.5E-10
-26	3.9E-11	3.9E-11	3.9E-11	1.3E-09	3.9E-11	1.3E-08	1.5E-10	2.5E-10	3.9E-11	4.2E-11	3.4E-10
conception	4.8E-11	4.8E-11	4.8E-11	1.7E-09	4.8E-11	1.6E-08	1.8E-10	3.1E-10	4.8E-11	5.2E-11	4.2E-10
+5	5.0E-11	5.0E-11	5.0E-11	1.7E-09	5.0E-11	1.7E-08	1.9E-10	3.2E-10	5.0E-11	5.4E-11	4.3E-10
+10	5.2E-11	5.2E-11	5.2E-11	1.8E-09	5.2E-11	1.8E-08	2.0E-10	3.3E-10	5.2E-11	5.6E-11	4.5E-10
+15	5.4E-11	5.4E-11	5.4E-11	1.9E-09	5.4E-11	1.9E-08	2.0E-10	3.5E-10	5.4E-11	5.9E-11	4.7E-10
+25	5.9E-11	5.9E-11	5.8E-11	2.0E-09	5.8E-11	2.0E-08	2.2E-10	3.7E-10	5.8E-11	6.3E-11	5.1E-10
+35	6.3E-11	6.3E-11	6.3E-11	2.2E-09	6.3E-11	2.2E-08	2.4E-10	4.0E-10	6.3E-11	6.8E-11	5.5E-10
birth	7.7E-11	7.6E-11	7.4E-11	2.6E-09	7.4E-11	2.5E-08	3.0E-10	4.8E-10	7.4E-11	8.0E-11	6.5E-10
birth+1	1.3E-10	1.3E-10	1.2E-10	4.4E-09	1.2E-10	4.2E-08	5.6E-10	7.9E-10	1.2E-10	1.3E-10	1.1E-09
birth+5	1.2E-10	1.2E-10	1.1E-10	4.1E-09	1.1E-10	3.9E-08	5.2E-10	7.3E-10	1.1E-10	1.2E-10	1.0E-09
birth+10	1.1E-10	1.1E-10	1.0E-10	3.7E-09	1.0E-10	3.5E-08	4.8E-10	6.6E-10	1.0E-10	1.1E-10	9.2E-10
birth+15	1.0E-10	9.8E-11	9.0E-11	3.3E-09	9.0E-11	3.1E-08	4.3E-10	5.8E-10	9.0E-11	9.8E-11	8.1E-10
birth+20	8.8E-11	8.6E-11	7.8E-11	2.9E-09	7.8E-11	2.7E-08	3.9E-10	5.0E-10	7.8E-11	8.5E-11	7.0E-10
-260	2.1E-11	2.1E-11	2.0E-11	7.1E-10	2.0E-11	7.0E-09	7.7E-11	1.3E-10	2.1E-11	2.2E-11	1.8E-10
-52	4.0E-11	4.0E-11	3.9E-11	1.4E-09	3.9E-11	1.3E-08	1.5E-10	2.5E-10	3.9E-11	4.3E-11	3.4E-10
conception	5.6E-11	5.6E-11	5.6E-11	1.9E-09	5.6E-11	1.9E-08	2.1E-10	3.6E-10	5.6E-11	6.1E-11	4.9E-10
lactation	1.0E-10	1.0E-10	9.4E-11	3.4E-09	9.4E-11	3.2E-08	4.5E-10	6.1E-10	9.4E-11	1.0E-10	8.5E-10

Dose coefficients (Sv/Bq) for the offspring from mothers' milk  
following intake of Th-228 ( $T_{1/2} = 1.91$  y) by the mother (continued)

Scenario*	Testes	Ovaries	Brain	R.B.M.	Thyroid	Bone sur	Liver	Kidneys	Spleen	Remainder	Effective
Ingestion: f1 = 0.0002											
-130	7.0E-12	7.0E-12	6.9E-12	2.4E-10	6.9E-12	2.4E-09	2.6E-11	4.4E-11	6.9E-12	7.5E-12	6.0E-11
-26	1.6E-11	1.6E-11	1.5E-11	5.4E-10	1.5E-11	5.3E-09	5.9E-11	1.0E-10	1.5E-11	1.7E-11	1.3E-10
conception	1.9E-11	1.9E-11	1.9E-11	6.6E-10	1.9E-11	6.6E-09	7.2E-11	1.2E-10	1.9E-11	2.1E-11	1.7E-10
+5	2.0E-11	2.0E-11	2.0E-11	6.9E-10	2.0E-11	6.8E-09	7.5E-11	1.3E-10	2.0E-11	2.2E-11	1.7E-10
+10	2.1E-11	2.1E-11	2.1E-11	7.2E-10	2.1E-11	7.1E-09	7.8E-11	1.3E-10	2.1E-11	2.3E-11	1.8E-10
+15	2.2E-11	2.2E-11	2.2E-11	7.5E-10	2.2E-11	7.4E-09	8.1E-11	1.4E-10	2.2E-11	2.3E-11	1.9E-10
+25	2.3E-11	2.3E-11	2.3E-11	8.1E-10	2.3E-11	8.0E-09	8.8E-11	1.5E-10	2.3E-11	2.5E-11	2.0E-10
+35	2.5E-11	2.5E-11	2.5E-11	8.7E-10	2.5E-11	8.7E-09	9.5E-11	1.6E-10	2.5E-11	2.7E-11	2.2E-10
birth	3.6E-11	3.5E-11	3.5E-11	1.2E-09	3.5E-11	1.2E-08	1.4E-10	2.2E-10	3.5E-11	3.8E-11	3.0E-10
birth+1	8.6E-11	8.5E-11	8.1E-11	2.9E-09	8.1E-11	2.8E-08	3.4E-10	5.1E-10	8.1E-11	8.8E-11	7.3E-10
birth+5	8.2E-11	8.1E-11	7.8E-11	2.8E-09	7.8E-11	2.7E-08	3.3E-10	4.9E-10	7.8E-11	8.5E-11	7.0E-10
birth+10	7.7E-11	7.7E-11	7.3E-11	2.6E-09	7.3E-11	2.6E-08	3.1E-10	4.6E-10	7.3E-11	8.0E-11	6.6E-10
birth+15	7.3E-11	7.2E-11	6.8E-11	2.5E-09	6.8E-11	2.4E-08	2.9E-10	4.3E-10	6.8E-11	7.4E-11	6.1E-10
birth+20	6.8E-11	6.7E-11	6.3E-11	2.3E-09	6.3E-11	2.2E-08	2.7E-10	4.0E-10	6.3E-11	6.9E-11	5.7E-10
-260	8.3E-12	8.3E-12	8.2E-12	2.8E-10	8.2E-12	2.8E-09	3.1E-11	5.3E-11	8.2E-12	8.9E-12	7.1E-11
-52	1.6E-11	1.6E-11	1.6E-11	5.4E-10	1.6E-11	5.4E-09	5.9E-11	1.0E-10	1.6E-11	1.7E-11	1.4E-10
conception	2.3E-11	2.3E-11	2.2E-11	7.8E-10	2.2E-11	7.7E-09	8.4E-11	1.4E-10	2.2E-11	2.4E-11	1.9E-10
lactation	7.4E-11	7.3E-11	7.0E-11	2.5E-09	7.0E-11	2.4E-08	3.0E-10	4.4E-10	7.0E-11	7.6E-11	6.3E-10

Dose coefficients (Sv/Bq) for the offspring from mothers' milk  
following intake of Th-232 ( $T_{1/2} = 1.40E+10$  y) by the mother

Scenario*	Testes	Ovaries	Brain	R.B.M.	Thyroid	Bone sur	Liver	Kidneys	Spleen	Remainder	Effective
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type M fl = 0.0005											
-130	9.9E-10	9.1E-10	4.6E-10	1.4E-08	4.6E-10	9.7E-08	4.3E-09	2.7E-09	4.6E-10	5.0E-10	3.3E-09
-26	1.2E-09	1.1E-09	5.6E-10	1.6E-08	5.6E-10	1.1E-07	5.0E-09	3.2E-09	5.6E-10	6.1E-10	3.8E-09
conception	1.5E-09	1.4E-09	6.8E-10	1.7E-08	6.8E-10	1.3E-07	5.7E-09	3.8E-09	6.8E-10	7.4E-10	4.4E-09
+5	1.6E-09	1.5E-09	7.1E-10	1.8E-08	7.1E-10	1.3E-07	5.9E-09	4.0E-09	7.1E-10	7.8E-10	4.6E-09
+10	1.7E-09	1.6E-09	7.6E-10	1.9E-08	7.6E-10	1.4E-07	6.2E-09	4.2E-09	7.6E-10	8.3E-10	4.7E-09
+15	1.9E-09	1.7E-09	8.1E-10	1.9E-08	8.1E-10	1.4E-07	6.4E-09	4.5E-09	8.1E-10	8.8E-10	5.0E-09
+25	2.2E-09	2.1E-09	9.5E-10	2.1E-08	9.5E-10	1.6E-07	7.1E-09	5.2E-09	9.5E-10	1.0E-09	5.6E-09
+35	2.9E-09	2.7E-09	1.2E-09	2.4E-08	1.2E-09	1.9E-07	8.2E-09	6.6E-09	1.2E-09	1.3E-09	6.7E-09
birth	3.9E-09	3.6E-09	1.6E-09	3.0E-08	1.6E-09	2.4E-07	1.0E-08	8.6E-09	1.6E-09	1.8E-09	8.3E-09
birth+1	6.6E-09	6.1E-09	2.7E-09	4.5E-08	2.7E-09	3.7E-07	1.6E-08	1.4E-08	2.7E-09	2.9E-09	1.3E-08
birth+5	6.3E-09	5.7E-09	2.5E-09	4.2E-08	2.5E-09	3.5E-07	1.4E-08	1.3E-08	2.5E-09	2.8E-09	1.2E-08
birth+10	5.8E-09	5.3E-09	2.3E-09	3.8E-08	2.3E-09	3.2E-07	1.3E-08	1.2E-08	2.3E-09	2.6E-09	1.1E-08
birth+15	5.0E-09	4.6E-09	2.0E-09	3.0E-08	2.0E-09	2.6E-07	1.0E-08	1.0E-08	2.0E-09	2.2E-09	9.2E-09
birth+20	4.4E-09	4.0E-09	1.8E-09	2.6E-08	1.8E-09	2.3E-07	9.1E-09	9.1E-09	1.8E-09	1.9E-09	8.1E-09
-260	1.0E-09	9.6E-10	4.9E-10	1.4E-08	4.9E-10	1.0E-07	4.5E-09	2.8E-09	4.9E-10	5.3E-10	3.5E-09
-52	1.3E-09	1.2E-09	5.7E-10	1.6E-08	5.7E-10	1.1E-07	5.1E-09	3.3E-09	5.7E-10	6.2E-10	3.9E-09
conception	2.1E-09	1.9E-09	9.1E-10	2.0E-08	9.1E-10	1.5E-07	6.8E-09	5.0E-09	9.1E-10	9.9E-10	5.4E-09
lactation	5.3E-09	4.8E-09	2.1E-09	3.4E-08	2.1E-09	2.9E-07	1.2E-08	1.1E-08	2.1E-09	2.3E-09	1.0E-08
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type S fl = 0.0002											
-130	1.3E-10	1.2E-10	6.5E-11	1.9E-09	6.5E-11	1.5E-08	5.5E-10	3.8E-10	6.5E-11	7.1E-11	4.8E-10
-26	1.2E-10	1.1E-10	5.4E-11	1.4E-09	5.4E-11	1.0E-08	4.6E-10	3.1E-10	5.4E-11	5.9E-11	3.6E-10
conception	1.1E-10	1.0E-10	5.0E-11	1.2E-09	5.0E-11	9.0E-09	4.1E-10	2.8E-10	5.0E-11	5.4E-11	3.2E-10
+5	1.1E-10	1.0E-10	4.9E-11	1.2E-09	4.9E-11	8.7E-09	3.9E-10	2.7E-10	4.9E-11	5.3E-11	3.1E-10
+10	1.1E-10	1.0E-10	4.8E-11	1.1E-09	4.8E-11	8.4E-09	3.8E-10	2.7E-10	4.8E-11	5.2E-11	3.0E-10
+15	1.1E-10	1.0E-10	4.7E-11	1.1E-09	4.7E-11	8.2E-09	3.7E-10	2.6E-10	4.7E-11	5.1E-11	2.9E-10
+25	1.1E-10	1.0E-10	4.7E-11	1.1E-09	4.7E-11	7.9E-09	3.6E-10	2.6E-10	4.7E-11	5.1E-11	2.8E-10
+35	1.2E-10	1.1E-10	4.9E-11	1.1E-09	4.9E-11	8.1E-09	3.6E-10	2.7E-10	4.9E-11	5.4E-11	2.9E-10
birth	1.3E-10	1.2E-10	5.4E-11	1.1E-09	5.4E-11	8.6E-09	3.8E-10	2.9E-10	5.4E-11	5.9E-11	3.0E-10
birth+1	1.6E-10	1.5E-10	6.7E-11	1.3E-09	6.7E-11	1.0E-08	4.5E-10	3.6E-10	6.7E-11	7.3E-11	3.6E-10
birth+5	1.4E-10	1.3E-10	6.0E-11	1.2E-09	6.0E-11	9.1E-09	4.0E-10	3.2E-10	6.0E-11	6.6E-11	3.2E-10
birth+10	1.2E-10	1.1E-10	5.1E-11	9.6E-10	5.1E-11	7.6E-09	3.3E-10	2.7E-10	5.1E-11	5.6E-11	2.7E-10
birth+15	8.6E-11	7.9E-11	3.4E-11	5.2E-10	3.4E-11	4.5E-09	1.8E-10	1.8E-10	3.4E-11	3.8E-11	1.6E-10
birth+20	6.8E-11	6.3E-11	2.7E-11	4.1E-10	2.7E-11	3.6E-09	1.4E-10	1.4E-10	2.7E-11	3.0E-11	1.3E-10
-260	1.3E-10	1.2E-10	6.4E-11	1.9E-09	6.4E-11	1.4E-08	5.3E-10	3.7E-10	6.4E-11	7.0E-11	4.6E-10
-52	1.2E-10	1.1E-10	5.5E-11	1.4E-09	5.5E-11	1.1E-08	4.6E-10	3.1E-10	5.5E-11	5.9E-11	3.6E-10
conception	1.1E-10	1.0E-10	4.8E-11	1.1E-09	4.8E-11	8.2E-09	3.7E-10	2.6E-10	4.8E-11	5.2E-11	2.9E-10
lactation	1.1E-10	9.9E-11	4.4E-11	8.3E-10	4.4E-11	6.6E-09	2.8E-10	2.4E-10	4.4E-11	4.9E-11	2.3E-10
Ingestion: fl = 0.0005											
-130	8.1E-12	7.4E-12	3.8E-12	1.1E-10	3.8E-12	7.7E-10	3.5E-11	2.2E-11	3.8E-12	4.1E-12	2.7E-11
-26	8.7E-12	8.0E-12	3.9E-12	1.1E-10	3.9E-12	7.9E-10	3.7E-11	2.3E-11	3.9E-12	4.3E-12	2.8E-11
conception	8.9E-12	8.1E-12	4.0E-12	1.2E-10	4.0E-12	8.0E-10	3.8E-11	2.3E-11	4.0E-12	4.3E-12	2.8E-11
+5	8.9E-12	8.1E-12	4.0E-12	1.2E-10	4.0E-12	8.0E-10	3.8E-11	2.3E-11	4.0E-12	4.4E-12	2.8E-11
+10	8.9E-12	8.1E-12	4.0E-12	1.2E-10	4.0E-12	8.0E-10	3.8E-11	2.3E-11	4.0E-12	4.3E-12	2.8E-11
+15	8.8E-12	8.1E-12	4.0E-12	1.2E-10	4.0E-12	8.0E-10	3.8E-11	2.3E-11	4.0E-12	4.3E-12	2.8E-11
+25	8.7E-12	8.0E-12	3.9E-12	1.1E-10	3.9E-12	7.9E-10	3.8E-11	2.2E-11	3.9E-12	4.3E-12	2.8E-11
+35	8.4E-12	7.6E-12	3.8E-12	1.1E-10	3.8E-12	7.7E-10	3.7E-11	2.2E-11	3.8E-12	4.1E-12	2.7E-11
birth	2.1E-11	2.0E-11	9.1E-12	2.0E-10	9.1E-12	1.5E-09	6.6E-11	4.9E-11	9.1E-12	9.9E-12	5.2E-11
birth+1	7.0E-11	6.4E-11	2.9E-11	5.1E-10	2.9E-11	4.1E-09	1.7E-10	1.5E-10	2.9E-11	3.1E-11	1.5E-10
birth+5	6.9E-11	6.3E-11	2.8E-11	4.9E-10	2.8E-11	4.0E-09	1.7E-10	1.5E-10	2.8E-11	3.1E-11	1.4E-10
birth+10	6.7E-11	6.2E-11	2.7E-11	4.7E-10	2.7E-11	3.8E-09	1.6E-10	1.4E-10	2.7E-11	3.0E-11	1.4E-10
birth+15	6.0E-11	5.5E-11	2.4E-11	3.6E-10	2.4E-11	3.1E-09	1.3E-10	1.3E-10	2.4E-11	2.7E-11	1.1E-10
birth+20	6.0E-11	5.5E-11	2.4E-11	3.6E-10	2.4E-11	3.1E-09	1.2E-10	1.2E-10	2.4E-11	2.6E-11	1.1E-10
-260	8.2E-12	7.5E-12	3.8E-12	1.1E-10	3.8E-12	7.9E-10	3.6E-11	2.2E-11	3.8E-12	4.1E-12	2.7E-11
-52	8.7E-12	8.0E-12	4.0E-12	1.1E-10	4.0E-12	7.9E-10	3.8E-11	2.3E-11	4.0E-12	4.3E-12	2.8E-11
conception	8.9E-12	8.1E-12	4.0E-12	1.2E-10	4.0E-12	8.0E-10	3.8E-11	2.3E-11	4.0E-12	4.3E-12	2.8E-11
lactation	6.5E-11	6.0E-11	2.7E-11	4.5E-10	2.7E-11	3.7E-09	1.6E-10	1.4E-10	2.7E-11	2.9E-11	1.3E-10

Dose coefficients (Sv/Bq) for the offspring from mothers' milk  
following intake of Th-232 ( $T_{1/2} = 1.40E+10$  y) by the mother (continued)

Scenario*	Testes	Ovaries	Brain	R.B.M.	Thyroid	Bone sur	Liver	Kidneys	Spleen	Remainder	Effective
Ingestion: f1 = 0.0002											
-130	3.2E-12	3.0E-12	1.5E-12	4.4E-11	1.5E-12	3.1E-10	1.4E-11	8.7E-12	1.5E-12	1.6E-12	1.1E-11
-26	3.5E-12	3.2E-12	1.6E-12	4.5E-11	1.6E-12	3.2E-10	1.5E-11	9.0E-12	1.6E-12	1.7E-12	1.1E-11
conception	3.6E-12	3.3E-12	1.6E-12	4.6E-11	1.6E-12	3.2E-10	1.5E-11	9.2E-12	1.6E-12	1.7E-12	1.1E-11
+5	3.6E-12	3.3E-12	1.6E-12	4.6E-11	1.6E-12	3.2E-10	1.5E-11	9.2E-12	1.6E-12	1.7E-12	1.1E-11
+10	3.6E-12	3.3E-12	1.6E-12	4.6E-11	1.6E-12	3.2E-10	1.5E-11	9.2E-12	1.6E-12	1.7E-12	1.1E-11
+15	3.6E-12	3.3E-12	1.6E-12	4.6E-11	1.6E-12	3.2E-10	1.5E-11	9.2E-12	1.6E-12	1.7E-12	1.1E-11
+25	3.5E-12	3.2E-12	1.6E-12	4.7E-11	1.6E-12	3.2E-10	1.5E-11	9.1E-12	1.6E-12	1.7E-12	1.1E-11
+35	3.5E-12	3.2E-12	1.6E-12	4.7E-11	1.6E-12	3.2E-10	1.6E-11	9.1E-12	1.6E-12	1.7E-12	1.1E-11
birth	9.2E-12	8.4E-12	3.9E-12	8.8E-11	3.9E-12	6.6E-10	3.0E-11	2.1E-11	3.9E-12	4.3E-12	2.3E-11
birth+1	3.0E-11	2.7E-11	1.2E-11	2.4E-10	1.2E-11	1.9E-09	8.0E-11	6.6E-11	1.2E-11	1.4E-11	6.5E-11
birth+5	2.9E-11	2.7E-11	1.2E-11	2.3E-10	1.2E-11	1.8E-09	7.8E-11	6.5E-11	1.2E-11	1.3E-11	6.4E-11
birth+10	2.9E-11	2.6E-11	1.2E-11	2.2E-10	1.2E-11	1.7E-09	7.5E-11	6.3E-11	1.2E-11	1.3E-11	6.2E-11
birth+15	2.4E-11	2.2E-11	9.6E-12	1.4E-10	9.6E-12	1.3E-09	5.0E-11	5.0E-11	9.6E-12	1.1E-11	4.4E-11
birth+20	2.4E-11	2.2E-11	9.6E-12	1.4E-10	9.6E-12	1.2E-09	5.0E-11	5.0E-11	9.6E-12	1.1E-11	4.4E-11
-260	3.3E-12	3.0E-12	1.5E-12	4.5E-11	1.5E-12	3.2E-10	1.4E-11	8.9E-12	1.5E-12	1.7E-12	1.1E-11
-52	3.5E-12	3.2E-12	1.6E-12	4.6E-11	1.6E-12	3.2E-10	1.5E-11	9.1E-12	1.6E-12	1.7E-12	1.1E-11
conception	3.6E-12	3.3E-12	1.6E-12	4.7E-11	1.6E-12	3.2E-10	1.6E-11	9.3E-12	1.6E-12	1.8E-12	1.1E-11
lactation	2.8E-11	2.6E-11	1.2E-11	2.1E-10	1.2E-11	1.7E-09	7.2E-11	6.1E-11	1.2E-11	1.3E-11	6.0E-11



Dose coefficients (Sv/Bq) for the offspring from mothers' milk  
following intake of U-234 ( $T_{1/2} = 2.44E+05$  y) by the mother

Scenario*	Testes	Ovaries	Brain	R.B.M.	Thyroid	Bone sur	Liver	Kidneys	Spleen	Remainder	Effective
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type F fl = 0.02											
-130	2.5E-12	2.5E-12	2.5E-12	1.8E-11	2.5E-12	1.5E-10	1.1E-11	5.5E-11	2.5E-12	3.3E-12	7.2E-12
-26	3.8E-12	3.8E-12	3.8E-12	2.7E-11	3.8E-12	2.3E-10	1.7E-11	8.2E-11	3.8E-12	5.0E-12	1.1E-11
conception	7.7E-12	7.7E-12	7.7E-12	5.5E-11	7.7E-12	4.6E-10	3.4E-11	1.7E-10	7.7E-12	1.0E-11	2.2E-11
+5	1.0E-11	1.0E-11	1.0E-11	7.1E-11	1.0E-11	5.9E-10	4.5E-11	2.2E-10	1.0E-11	1.3E-11	2.9E-11
+10	1.4E-11	1.4E-11	1.4E-11	9.7E-11	1.4E-11	8.1E-10	6.1E-11	2.9E-10	1.4E-11	1.8E-11	3.9E-11
+15	1.9E-11	1.9E-11	1.9E-11	1.4E-10	1.9E-11	1.2E-09	8.7E-11	4.2E-10	1.9E-11	2.5E-11	5.5E-11
+25	4.6E-11	4.6E-11	4.6E-11	3.3E-10	4.6E-11	2.7E-09	2.1E-10	9.9E-10	4.6E-11	6.0E-11	1.3E-10
+35	1.5E-10	1.5E-10	1.5E-10	1.1E-09	1.5E-10	9.1E-09	6.8E-10	3.3E-09	1.5E-10	2.0E-10	4.4E-10
birth	3.3E-10	3.3E-10	3.3E-10	2.4E-09	3.3E-10	2.0E-08	1.5E-09	7.2E-09	3.3E-10	4.4E-10	9.5E-10
birth+1	1.8E-09	1.8E-09	1.8E-09	1.3E-08	1.8E-09	1.1E-07	8.2E-09	4.0E-08	1.8E-09	2.4E-09	5.2E-09
birth+5	1.8E-09	1.8E-09	1.8E-09	1.3E-08	1.8E-09	1.1E-07	8.2E-09	4.0E-08	1.8E-09	2.4E-09	5.2E-09
birth+10	1.8E-09	1.8E-09	1.8E-09	1.3E-08	1.8E-09	1.1E-07	8.1E-09	3.9E-08	1.8E-09	2.4E-09	5.2E-09
birth+15	1.8E-09	1.8E-09	1.8E-09	1.3E-08	1.8E-09	1.1E-07	8.0E-09	3.9E-08	1.8E-09	2.3E-09	5.1E-09
birth+20	1.7E-09	1.7E-09	1.7E-09	1.2E-08	1.7E-09	1.0E-07	7.8E-09	3.8E-08	1.7E-09	2.3E-09	5.0E-09
-260	2.8E-12	2.8E-12	2.8E-12	2.0E-11	2.8E-12	1.6E-10	1.2E-11	6.0E-11	2.8E-12	3.6E-12	7.9E-12
-52	4.3E-12	4.3E-12	4.3E-12	3.0E-11	4.3E-12	2.5E-10	1.9E-11	9.2E-11	4.3E-12	5.6E-12	1.2E-11
conception	5.2E-11	5.2E-11	5.2E-11	3.7E-10	5.2E-11	3.1E-09	2.3E-10	1.1E-09	5.2E-11	6.8E-11	1.5E-10
lactation	1.8E-09	1.8E-09	1.8E-09	1.3E-08	1.8E-09	1.0E-07	7.9E-09	3.8E-08	1.8E-09	2.3E-09	5.0E-09
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type M fl = 0.02											
-130	7.6E-13	7.6E-13	7.6E-13	5.4E-12	7.6E-13	4.5E-11	3.4E-12	1.6E-11	7.6E-13	1.0E-12	2.2E-12
-26	9.9E-12	9.9E-12	9.9E-12	7.0E-11	9.9E-12	5.9E-10	4.4E-11	2.1E-10	9.9E-12	1.3E-11	2.8E-11
conception	2.8E-11	2.8E-11	2.8E-11	1.9E-10	2.8E-11	1.6E-09	1.2E-10	5.9E-10	2.8E-11	3.6E-11	7.8E-11
+5	3.4E-11	3.4E-11	3.4E-11	2.4E-10	3.4E-11	2.0E-09	1.5E-10	7.3E-10	3.4E-11	4.4E-11	9.6E-11
+10	4.1E-11	4.1E-11	4.1E-11	2.9E-10	4.1E-11	2.5E-09	1.8E-10	8.9E-10	4.1E-11	5.4E-11	1.2E-10
+15	5.1E-11	5.1E-11	5.1E-11	3.6E-10	5.1E-11	3.0E-09	2.3E-10	1.1E-09	5.1E-11	6.7E-11	1.5E-10
+25	7.9E-11	7.9E-11	7.9E-11	5.6E-10	7.9E-11	4.7E-09	3.5E-10	1.7E-09	7.9E-11	1.0E-10	2.3E-10
+35	1.4E-10	1.4E-10	1.4E-10	9.7E-10	1.4E-10	8.1E-09	6.1E-10	3.0E-09	1.4E-10	1.8E-10	3.9E-10
birth	1.8E-10	1.8E-10	1.8E-10	1.3E-09	1.8E-10	1.1E-08	8.1E-10	3.9E-09	1.8E-10	2.4E-10	5.2E-10
birth+1	3.7E-10	3.7E-10	3.7E-10	2.7E-09	3.7E-10	2.2E-08	1.7E-09	8.1E-09	3.7E-10	4.9E-10	1.1E-09
birth+5	3.6E-10	3.6E-10	3.6E-10	2.6E-09	3.6E-10	2.1E-08	1.6E-09	7.8E-09	3.6E-10	4.7E-10	1.0E-09
birth+10	3.4E-10	3.4E-10	3.4E-10	2.4E-09	3.4E-10	2.0E-08	1.5E-09	7.3E-09	3.4E-10	4.5E-10	9.7E-10
birth+15	3.1E-10	3.1E-10	3.1E-10	2.2E-09	3.1E-10	1.9E-08	1.4E-09	6.7E-09	3.1E-10	4.1E-10	8.9E-10
birth+20	2.8E-10	2.8E-10	2.8E-10	1.9E-09	2.8E-10	1.6E-08	1.2E-09	5.9E-09	2.8E-10	3.6E-10	7.8E-10
-260	3.1E-12	3.1E-12	3.1E-12	2.2E-11	3.1E-12	1.9E-10	1.4E-11	6.8E-11	3.1E-12	4.1E-12	9.0E-12
-52	1.2E-11	1.2E-11	1.2E-11	8.4E-11	1.2E-11	7.0E-10	5.3E-11	2.5E-10	1.2E-11	1.5E-11	3.4E-11
conception	7.1E-11	7.1E-11	7.1E-11	5.1E-10	7.1E-11	4.2E-09	3.2E-10	1.5E-09	7.1E-11	9.3E-11	2.0E-10
lactation	3.1E-10	3.1E-10	3.1E-10	2.2E-09	3.1E-10	1.9E-08	1.4E-09	6.8E-09	3.1E-10	4.1E-10	8.9E-10
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type S fl = 0.002											
-130	1.4E-12	1.4E-12	1.4E-12	1.0E-11	1.4E-12	8.6E-11	6.5E-12	3.1E-11	1.4E-12	1.9E-12	4.1E-12
-26	2.6E-12	2.6E-12	2.6E-12	1.9E-11	2.6E-12	1.6E-10	1.2E-11	5.7E-11	2.6E-12	3.4E-12	7.5E-12
conception	3.1E-12	3.1E-12	3.1E-12	2.2E-11	3.1E-12	1.9E-10	1.4E-11	6.7E-11	3.1E-12	4.1E-12	8.9E-12
+5	3.2E-12	3.2E-12	3.2E-12	2.3E-11	3.2E-12	1.9E-10	1.4E-11	7.0E-11	3.2E-12	4.2E-12	9.2E-12
+10	3.4E-12	3.4E-12	3.4E-12	2.4E-11	3.4E-12	2.0E-10	1.5E-11	7.3E-11	3.4E-12	4.4E-12	9.6E-12
+15	3.5E-12	3.5E-12	3.5E-12	2.5E-11	3.5E-12	2.1E-10	1.6E-11	7.6E-11	3.5E-12	4.6E-12	1.0E-11
+25	3.9E-12	3.9E-12	3.9E-12	2.8E-11	3.9E-12	2.3E-10	1.8E-11	8.5E-11	3.9E-12	5.2E-12	1.1E-11
+35	5.0E-12	5.0E-12	5.0E-12	3.5E-11	5.0E-12	3.0E-10	2.2E-11	1.1E-10	5.0E-12	6.5E-12	1.4E-11
birth	6.2E-12	6.2E-12	6.2E-12	4.4E-11	6.2E-12	3.7E-10	2.8E-11	1.3E-10	6.2E-12	8.1E-12	1.8E-11
birth+1	1.2E-11	1.2E-11	1.2E-11	8.5E-11	1.2E-11	7.1E-10	5.3E-11	2.6E-10	1.2E-11	1.6E-11	3.4E-11
birth+5	1.1E-11	1.1E-11	1.1E-11	8.0E-11	1.1E-11	6.7E-10	5.1E-11	2.4E-10	1.1E-11	1.5E-11	3.2E-11
birth+10	1.1E-11	1.1E-11	1.1E-11	7.5E-11	1.1E-11	6.2E-10	4.7E-11	2.3E-10	1.1E-11	1.4E-11	3.0E-11
birth+15	9.5E-12	9.5E-12	9.5E-12	6.8E-11	9.5E-12	5.7E-10	4.3E-11	2.1E-10	9.5E-12	1.2E-11	2.7E-11
birth+20	8.4E-12	8.4E-12	8.4E-12	5.9E-11	8.4E-12	5.0E-10	3.7E-11	1.8E-10	8.4E-12	1.1E-11	2.4E-11
-260	1.6E-12	1.6E-12	1.6E-12	1.1E-11	1.6E-12	9.6E-11	7.2E-12	3.5E-11	1.6E-12	2.1E-12	4.6E-12
-52	2.7E-12	2.7E-12	2.7E-12	1.9E-11	2.7E-12	1.6E-10	1.2E-11	5.7E-11	2.7E-12	3.5E-12	7.6E-12
conception	3.9E-12	3.9E-12	3.9E-12	2.7E-11	3.9E-12	2.3E-10	1.7E-11	8.3E-11	3.9E-12	5.0E-12	1.1E-11
lactation	9.7E-12	9.7E-12	9.7E-12	6.9E-11	9.7E-12	5.7E-10	4.3E-11	2.1E-10	9.7E-12	1.3E-11	2.8E-11

Dose coefficients (Sv/Bq) for the offspring from mothers' milk  
following intake of U-234 ( $T_{1/2} = 2.44E+05$  y) by the mother (continued)

Scenario*	Testes	Ovaries	Brain	R.B.M.	Thyroid	Bone sur	Liver	Kidneys	Spleen	Remainder	Effective
Ingestion: f1 = 0.02											
-130	1.8E-13	1.8E-13	1.8E-13	1.3E-12	1.8E-13	1.1E-11	8.0E-13	3.9E-12	1.8E-13	2.3E-13	5.1E-13
-26	2.7E-13	2.7E-13	2.7E-13	1.9E-12	2.7E-13	1.6E-11	1.2E-12	5.8E-12	2.7E-13	3.5E-13	7.7E-13
conception	5.5E-13	5.5E-13	5.5E-13	3.9E-12	5.5E-13	3.2E-11	2.4E-12	1.2E-11	5.5E-13	7.2E-13	1.6E-12
+5	7.1E-13	7.1E-13	7.1E-13	5.0E-12	7.1E-13	4.2E-11	3.2E-12	1.5E-11	7.1E-13	9.3E-13	2.0E-12
+10	9.7E-13	9.7E-13	9.7E-13	6.9E-12	9.7E-13	5.7E-11	4.3E-12	2.1E-11	9.7E-13	1.3E-12	2.8E-12
+15	1.4E-12	1.4E-12	1.4E-12	9.8E-12	1.4E-12	8.2E-11	6.2E-12	3.0E-11	1.4E-12	1.8E-12	3.9E-12
+25	3.3E-12	3.3E-12	3.3E-12	2.3E-11	3.3E-12	1.9E-10	1.5E-11	7.0E-11	3.3E-12	4.3E-12	9.3E-12
+35	1.1E-11	1.1E-11	1.1E-11	7.7E-11	1.1E-11	6.5E-10	4.9E-11	2.4E-10	1.1E-11	1.4E-11	3.1E-11
birth	2.7E-11	2.7E-11	2.7E-11	1.9E-10	2.7E-11	1.6E-09	1.2E-10	5.8E-10	2.7E-11	3.5E-11	7.7E-11
birth+1	1.3E-10	1.3E-10	1.3E-10	9.2E-10	1.3E-10	7.7E-09	5.8E-10	2.8E-09	1.3E-10	1.7E-10	3.7E-10
birth+5	1.3E-10	1.3E-10	1.3E-10	9.2E-10	1.3E-10	7.7E-09	5.8E-10	2.8E-09	1.3E-10	1.7E-10	3.7E-10
birth+10	1.3E-10	1.3E-10	1.3E-10	9.1E-10	1.3E-10	7.6E-09	5.8E-10	2.8E-09	1.3E-10	1.7E-10	3.7E-10
birth+15	1.3E-10	1.3E-10	1.3E-10	9.0E-10	1.3E-10	7.5E-09	5.7E-10	2.7E-09	1.3E-10	1.7E-10	3.6E-10
birth+20	1.2E-10	1.2E-10	1.2E-10	8.8E-10	1.2E-10	7.3E-09	5.5E-10	2.7E-09	1.2E-10	1.6E-10	3.5E-10
-260	2.0E-13	2.0E-13	2.0E-13	1.4E-12	2.0E-13	1.2E-11	8.8E-13	4.3E-12	2.0E-13	2.6E-13	5.6E-13
-52	3.0E-13	3.0E-13	3.0E-13	2.2E-12	3.0E-13	1.8E-11	1.4E-12	6.6E-12	3.0E-13	4.0E-13	8.7E-13
conception	3.7E-12	3.7E-12	3.7E-12	2.6E-11	3.7E-12	2.2E-10	1.7E-11	8.0E-11	3.7E-12	4.8E-12	1.1E-11
lactation	1.3E-10	1.3E-10	1.3E-10	8.9E-10	1.3E-10	7.4E-09	5.6E-10	2.7E-09	1.3E-10	1.6E-10	3.6E-10
Ingestion: f1 = 0.002											
-130	1.8E-14	1.8E-14	1.8E-14	1.3E-13	1.8E-14	1.1E-12	8.0E-14	3.9E-13	1.8E-14	2.3E-14	5.1E-14
-26	2.7E-14	2.7E-14	2.7E-14	1.9E-13	2.7E-14	1.6E-12	1.2E-13	5.8E-13	2.7E-14	3.5E-14	7.7E-14
conception	5.5E-14	5.5E-14	5.5E-14	3.9E-13	5.5E-14	3.2E-12	2.4E-13	1.2E-12	5.5E-14	7.2E-14	1.6E-13
+5	7.1E-14	7.1E-14	7.1E-14	5.0E-13	7.1E-14	4.2E-12	3.2E-13	1.5E-12	7.1E-14	9.3E-14	2.0E-13
+10	9.7E-14	9.7E-14	9.7E-14	6.9E-13	9.7E-14	5.7E-12	4.3E-13	2.1E-12	9.7E-14	1.3E-13	2.8E-13
+15	1.4E-13	1.4E-13	1.4E-13	9.8E-13	1.4E-13	8.2E-12	6.2E-13	3.0E-12	1.4E-13	1.8E-13	3.9E-13
+25	3.3E-13	3.3E-13	3.3E-13	2.3E-12	3.3E-13	1.9E-11	1.5E-12	7.0E-12	3.3E-13	4.3E-13	9.3E-13
+35	1.1E-12	1.1E-12	1.1E-12	7.7E-12	1.1E-12	6.5E-11	4.9E-12	2.4E-11	1.1E-12	1.4E-12	3.1E-12
birth	2.7E-12	2.7E-12	2.7E-12	1.9E-11	2.7E-12	1.6E-10	1.2E-11	5.8E-11	2.7E-12	3.5E-12	7.7E-12
birth+1	1.3E-11	1.3E-11	1.3E-11	9.2E-11	1.3E-11	7.7E-10	5.8E-11	2.8E-10	1.3E-11	1.7E-11	3.7E-11
birth+5	1.3E-11	1.3E-11	1.3E-11	9.2E-11	1.3E-11	7.7E-10	5.8E-11	2.8E-10	1.3E-11	1.7E-11	3.7E-11
birth+10	1.3E-11	1.3E-11	1.3E-11	9.1E-11	1.3E-11	7.6E-10	5.8E-11	2.8E-10	1.3E-11	1.7E-11	3.7E-11
birth+15	1.3E-11	1.3E-11	1.3E-11	9.0E-11	1.3E-11	7.5E-10	5.7E-11	2.7E-10	1.3E-11	1.7E-11	3.6E-11
birth+20	1.2E-11	1.2E-11	1.2E-11	8.8E-11	1.2E-11	7.3E-10	5.5E-11	2.7E-10	1.2E-11	1.6E-11	3.5E-11
-260	2.0E-14	2.0E-14	2.0E-14	1.4E-13	2.0E-14	1.2E-12	8.8E-14	4.3E-13	2.0E-14	2.6E-14	5.6E-14
-52	3.0E-14	3.0E-14	3.0E-14	2.2E-13	3.0E-14	1.8E-12	1.4E-13	6.6E-13	3.0E-14	4.0E-14	8.7E-14
conception	3.7E-13	3.7E-13	3.7E-13	2.6E-12	3.7E-13	2.2E-11	1.7E-12	8.0E-12	3.7E-13	4.8E-13	1.1E-12
lactation	1.3E-11	1.3E-11	1.3E-11	8.9E-11	1.3E-11	7.4E-10	5.6E-11	2.7E-10	1.3E-11	1.6E-11	3.6E-11

Dose coefficients (Sv/Bq) for the offspring from mothers' milk  
following intake of U-235 ( $T_{1/2} = 7.04E+08$  y) by the mother

Scenario*	Testes	Ovaries	Brain	R.B.M.	Thyroid	Bone sur	Liver	Kidneys	Spleen	Remainder	Effective
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type F fl = 0.02											
-130	2.5E-12	2.5E-12	2.3E-12	1.7E-11	2.3E-12	1.4E-10	1.1E-11	5.1E-11	2.3E-12	2.9E-12	6.8E-12
-26	3.8E-12	3.8E-12	3.5E-12	2.5E-11	3.5E-12	2.1E-10	1.6E-11	7.6E-11	3.5E-12	4.4E-12	1.0E-11
conception	7.7E-12	7.7E-12	7.1E-12	5.1E-11	7.1E-12	4.3E-10	3.2E-11	1.5E-10	7.1E-12	8.9E-12	2.1E-11
+5	1.0E-11	1.0E-11	9.3E-12	6.6E-11	9.3E-12	5.6E-10	4.2E-11	2.0E-10	9.3E-12	1.2E-11	2.7E-11
+10	1.4E-11	1.4E-11	1.3E-11	9.0E-11	1.3E-11	7.6E-10	5.7E-11	2.7E-10	1.3E-11	1.6E-11	3.7E-11
+15	1.9E-11	1.9E-11	1.8E-11	1.3E-10	1.8E-11	1.1E-09	8.1E-11	3.9E-10	1.8E-11	2.2E-11	5.2E-11
+25	4.6E-11	4.6E-11	4.2E-11	3.0E-10	4.2E-11	2.5E-09	1.9E-10	9.2E-10	4.2E-11	5.3E-11	1.2E-10
+35	1.5E-10	1.5E-10	1.4E-10	1.0E-09	1.4E-10	8.5E-09	6.4E-10	3.1E-09	1.4E-10	1.8E-10	4.1E-10
birth	3.3E-10	3.3E-10	3.1E-10	2.2E-09	3.1E-10	1.8E-08	1.4E-09	6.7E-09	3.1E-10	3.9E-10	9.0E-10
birth+1	1.8E-09	1.8E-09	1.7E-09	1.2E-08	1.7E-09	1.0E-07	7.7E-09	3.7E-08	1.7E-09	2.1E-09	5.0E-09
birth+5	1.8E-09	1.8E-09	1.7E-09	1.2E-08	1.7E-09	1.0E-07	7.6E-09	3.7E-08	1.7E-09	2.1E-09	4.9E-09
birth+10	1.8E-09	1.8E-09	1.7E-09	1.2E-08	1.7E-09	1.0E-07	7.6E-09	3.6E-08	1.7E-09	2.1E-09	4.9E-09
birth+15	1.8E-09	1.8E-09	1.7E-09	1.2E-08	1.7E-09	1.0E-07	7.5E-09	3.6E-08	1.7E-09	2.1E-09	4.8E-09
birth+20	1.7E-09	1.7E-09	1.6E-09	1.2E-08	1.6E-09	9.7E-08	7.3E-09	3.5E-08	1.6E-09	2.0E-09	4.7E-09
-260	2.8E-12	2.8E-12	2.6E-12	1.8E-11	2.6E-12	1.5E-10	1.2E-11	5.6E-11	2.6E-12	3.2E-12	7.5E-12
-52	4.3E-12	4.3E-12	4.0E-12	2.8E-11	4.0E-12	2.4E-10	1.8E-11	8.6E-11	4.0E-12	5.0E-12	1.2E-11
conception	5.2E-11	5.2E-11	4.8E-11	3.4E-10	4.8E-11	2.9E-09	2.2E-10	1.0E-09	4.8E-11	6.0E-11	1.4E-10
lactation	1.8E-09	1.8E-09	1.6E-09	1.2E-08	1.6E-09	9.8E-08	7.4E-09	3.5E-08	1.6E-09	2.0E-09	4.8E-09
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type M fl = 0.02											
-130	7.6E-13	7.6E-13	7.1E-13	5.1E-12	7.1E-13	4.2E-11	3.2E-12	1.5E-11	7.1E-13	8.8E-13	2.1E-12
-26	9.9E-12	9.9E-12	9.2E-12	6.6E-11	9.2E-12	5.5E-10	4.1E-11	2.0E-10	9.2E-12	1.1E-11	2.7E-11
conception	2.8E-11	2.8E-11	2.5E-11	1.8E-10	2.5E-11	1.5E-09	1.1E-10	5.5E-10	2.5E-11	3.2E-11	7.4E-11
+5	3.4E-11	3.4E-11	3.1E-11	2.2E-10	3.1E-11	1.9E-09	1.4E-10	6.7E-10	3.1E-11	3.9E-11	9.1E-11
+10	4.1E-11	4.1E-11	3.8E-11	2.7E-10	3.8E-11	2.3E-09	1.7E-10	8.3E-10	3.8E-11	4.8E-11	1.1E-10
+15	5.1E-11	5.1E-11	4.7E-11	3.4E-10	4.7E-11	2.8E-09	2.1E-10	1.0E-09	4.7E-11	5.9E-11	1.4E-10
+25	7.9E-11	7.9E-11	7.3E-11	5.3E-10	7.3E-11	4.4E-09	3.3E-10	1.6E-09	7.3E-11	9.2E-11	2.1E-10
+35	1.4E-10	1.4E-10	1.3E-10	9.1E-10	1.3E-10	7.6E-09	5.7E-10	2.7E-09	1.3E-10	1.6E-10	3.7E-10
birth	1.8E-10	1.8E-10	1.7E-10	1.2E-09	1.7E-10	1.0E-08	7.6E-10	3.6E-09	1.7E-10	2.1E-10	4.9E-10
birth+1	3.7E-10	3.7E-10	3.5E-10	2.5E-09	3.5E-10	2.1E-08	1.6E-09	7.5E-09	3.5E-10	4.3E-10	1.0E-09
birth+5	3.6E-10	3.6E-10	3.3E-10	2.4E-09	3.3E-10	2.0E-08	1.5E-09	7.2E-09	3.3E-10	4.2E-10	9.7E-10
birth+10	3.4E-10	3.4E-10	3.1E-10	2.3E-09	3.1E-10	1.9E-08	1.4E-09	6.8E-09	3.1E-10	3.9E-10	9.2E-10
birth+15	3.1E-10	3.1E-10	2.9E-10	2.1E-09	2.9E-10	1.7E-08	1.3E-09	6.3E-09	2.9E-10	3.6E-10	8.4E-10
birth+20	2.8E-10	2.8E-10	2.5E-10	1.8E-09	2.5E-10	1.5E-08	1.1E-09	5.5E-09	2.5E-10	3.2E-10	7.4E-10
-260	3.1E-12	3.1E-12	2.9E-12	2.1E-11	2.9E-12	1.7E-10	1.3E-11	6.3E-11	2.9E-12	3.6E-12	8.5E-12
-52	1.2E-11	1.2E-11	1.1E-11	7.8E-11	1.1E-11	6.6E-10	4.9E-11	2.4E-10	1.1E-11	1.4E-11	3.2E-11
conception	7.1E-11	7.1E-11	6.6E-11	4.7E-10	6.6E-11	4.0E-09	3.0E-10	1.4E-09	6.6E-11	8.2E-11	1.9E-10
lactation	3.1E-10	3.1E-10	2.9E-10	2.1E-09	2.9E-10	1.7E-08	1.3E-09	6.3E-09	2.9E-10	3.6E-10	8.4E-10
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type S fl = 0.002											
-130	1.4E-12	1.4E-12	1.3E-12	9.6E-12	1.3E-12	8.0E-11	6.0E-12	2.9E-11	1.3E-12	1.7E-12	3.9E-12
-26	2.6E-12	2.6E-12	2.4E-12	1.7E-11	2.4E-12	1.5E-10	1.1E-11	5.3E-11	2.4E-12	3.0E-12	7.1E-12
conception	3.1E-12	3.1E-12	2.9E-12	2.1E-11	2.9E-12	1.7E-10	1.3E-11	6.3E-11	2.9E-12	3.6E-12	8.5E-12
+5	3.2E-12	3.2E-12	3.0E-12	2.1E-11	3.0E-12	1.8E-10	1.3E-11	6.5E-11	3.0E-12	3.7E-12	8.8E-12
+10	3.4E-12	3.4E-12	3.1E-12	2.2E-11	3.1E-12	1.9E-10	1.4E-11	6.7E-11	3.1E-12	3.9E-12	9.1E-12
+15	3.5E-12	3.5E-12	3.2E-12	2.3E-11	3.2E-12	1.9E-10	1.5E-11	7.0E-11	3.2E-12	4.1E-12	9.5E-12
+25	3.9E-12	3.9E-12	3.6E-12	2.6E-11	3.6E-12	2.2E-10	1.6E-11	7.9E-11	3.6E-12	4.5E-12	1.1E-11
+35	5.0E-12	5.0E-12	4.6E-12	3.3E-11	4.6E-12	2.8E-10	2.1E-11	1.0E-10	4.6E-12	5.8E-12	1.3E-11
birth	6.2E-12	6.2E-12	5.7E-12	4.1E-11	5.7E-12	3.4E-10	2.6E-11	1.2E-10	5.7E-12	7.2E-12	1.7E-11
birth+1	1.2E-11	1.2E-11	1.1E-11	7.9E-11	1.1E-11	6.6E-10	5.0E-11	2.4E-10	1.1E-11	1.4E-11	3.2E-11
birth+5	1.1E-11	1.1E-11	1.0E-11	7.5E-11	1.0E-11	6.3E-10	4.7E-11	2.3E-10	1.0E-11	1.3E-11	3.1E-11
birth+10	1.1E-11	1.1E-11	9.7E-12	7.0E-11	9.7E-12	5.8E-10	4.4E-11	2.1E-10	9.7E-12	1.2E-11	2.8E-11
birth+15	9.5E-12	9.5E-12	8.8E-12	6.3E-11	8.8E-12	5.3E-10	4.0E-11	1.9E-10	8.8E-12	1.1E-11	2.6E-11
birth+20	8.4E-12	8.4E-12	7.7E-12	5.5E-11	7.7E-12	4.6E-10	3.5E-11	1.7E-10	7.7E-12	9.7E-12	2.3E-11
-260	1.6E-12	1.6E-12	1.5E-12	1.1E-11	1.5E-12	9.0E-11	6.7E-12	3.2E-11	1.5E-12	1.9E-12	4.4E-12
-52	2.7E-12	2.7E-12	2.5E-12	1.8E-11	2.5E-12	1.5E-10	1.1E-11	5.3E-11	2.5E-12	3.1E-12	7.2E-12
conception	3.9E-12	3.9E-12	3.6E-12	2.6E-11	3.6E-12	2.1E-10	1.6E-11	7.7E-11	3.6E-12	4.5E-12	1.0E-11
lactation	9.7E-12	9.7E-12	9.0E-12	6.4E-11	9.0E-12	5.4E-10	4.0E-11	1.9E-10	9.0E-12	1.1E-11	2.6E-11

Dose coefficients (Sv/Bq) for the offspring from mothers' milk  
following intake of U-235 ( $T_{1/2} = 7.04E+08$  y) by the mother (continued)

Scenario*	Testes	Ovaries	Brain	R.B.M.	Thyroid	Bone sur	Liver	Kidneys	Spleen	Remainder	Effective
Ingestion: f1 = 0.02											
-130	1.8E-13	1.8E-13	1.7E-13	1.2E-12	1.7E-13	9.9E-12	7.5E-13	3.6E-12	1.7E-13	2.1E-13	4.8E-13
-26	2.7E-13	2.7E-13	2.5E-13	1.8E-12	2.5E-13	1.5E-11	1.1E-12	5.4E-12	2.5E-13	3.1E-13	7.3E-13
conception	5.5E-13	5.5E-13	5.1E-13	3.6E-12	5.1E-13	3.0E-11	2.3E-12	1.1E-11	5.1E-13	6.3E-13	1.5E-12
+5	7.1E-13	7.1E-13	6.6E-13	4.7E-12	6.6E-13	3.9E-11	3.0E-12	1.4E-11	6.6E-13	8.2E-13	1.9E-12
+10	9.7E-13	9.7E-13	8.9E-13	6.4E-12	8.9E-13	5.4E-11	4.0E-12	1.9E-11	8.9E-13	1.1E-12	2.6E-12
+15	1.4E-12	1.4E-12	1.3E-12	9.1E-12	1.3E-12	7.7E-11	5.7E-12	2.8E-11	1.3E-12	1.6E-12	3.7E-12
+25	3.3E-12	3.3E-12	3.0E-12	2.2E-11	3.0E-12	1.8E-10	1.4E-11	6.5E-11	3.0E-12	3.8E-12	8.8E-12
+35	1.1E-11	1.1E-11	1.0E-11	7.2E-11	1.0E-11	6.0E-10	4.5E-11	2.2E-10	1.0E-11	1.3E-11	2.9E-11
birth	2.7E-11	2.7E-11	2.5E-11	1.8E-10	2.5E-11	1.5E-09	1.1E-10	5.4E-10	2.5E-11	3.1E-11	7.3E-11
birth+1	1.3E-10	1.3E-10	1.2E-10	8.6E-10	1.2E-10	7.2E-09	5.4E-10	2.6E-09	1.2E-10	1.5E-10	3.5E-10
birth+5	1.3E-10	1.3E-10	1.2E-10	8.6E-10	1.2E-10	7.2E-09	5.4E-10	2.6E-09	1.2E-10	1.5E-10	3.5E-10
birth+10	1.3E-10	1.3E-10	1.2E-10	8.5E-10	1.2E-10	7.2E-09	5.4E-10	2.6E-09	1.2E-10	1.5E-10	3.5E-10
birth+15	1.3E-10	1.3E-10	1.2E-10	8.4E-10	1.2E-10	7.1E-09	5.3E-10	2.5E-09	1.2E-10	1.5E-10	3.4E-10
birth+20	1.2E-10	1.2E-10	1.1E-10	8.2E-10	1.1E-10	6.9E-09	5.1E-10	2.5E-09	1.1E-10	1.4E-10	3.3E-10
-260	2.0E-13	2.0E-13	1.8E-13	1.3E-12	1.8E-13	1.1E-11	8.2E-13	3.9E-12	1.8E-13	2.3E-13	5.3E-13
-52	3.0E-13	3.0E-13	2.8E-13	2.0E-12	2.8E-13	1.7E-11	1.3E-12	6.1E-12	2.8E-13	3.5E-13	8.2E-13
conception	3.7E-12	3.7E-12	3.4E-12	2.5E-11	3.4E-12	2.1E-10	1.5E-11	7.4E-11	3.4E-12	4.3E-12	1.0E-11
lactation	1.3E-10	1.3E-10	1.2E-10	8.3E-10	1.2E-10	7.0E-09	5.2E-10	2.5E-09	1.2E-10	1.4E-10	3.4E-10
Ingestion: f1 = 0.002											
-130	1.8E-14	1.8E-14	1.7E-14	1.2E-13	1.7E-14	9.9E-13	7.5E-14	3.6E-13	1.7E-14	2.1E-14	4.8E-14
-26	2.7E-14	2.7E-14	2.5E-14	1.8E-13	2.5E-14	1.5E-12	1.1E-13	5.4E-13	2.5E-14	3.1E-14	7.3E-14
conception	5.5E-14	5.5E-14	5.1E-14	3.6E-13	5.1E-14	3.0E-12	2.3E-13	1.1E-12	5.1E-14	6.3E-14	1.5E-13
+5	7.1E-14	7.1E-14	6.6E-14	4.7E-13	6.6E-14	3.9E-12	3.0E-13	1.4E-12	6.6E-14	8.2E-14	1.9E-13
+10	9.7E-14	9.7E-14	8.9E-14	6.4E-13	8.9E-14	5.4E-12	4.0E-13	1.9E-12	8.9E-14	1.1E-13	2.6E-13
+15	1.4E-13	1.4E-13	1.3E-13	9.1E-13	1.3E-13	7.7E-12	5.7E-13	2.8E-12	1.3E-13	1.6E-13	3.7E-13
+25	3.3E-13	3.3E-13	3.0E-13	2.2E-12	3.0E-13	1.8E-11	1.4E-12	6.5E-12	3.0E-13	3.8E-13	8.8E-13
+35	1.1E-12	1.1E-12	1.0E-12	7.2E-12	1.0E-12	6.0E-11	4.5E-12	2.2E-11	1.0E-12	1.3E-12	2.9E-12
birth	2.7E-12	2.7E-12	2.5E-12	1.8E-11	2.5E-12	1.5E-10	1.1E-11	5.4E-11	2.5E-12	3.1E-12	7.3E-12
birth+1	1.3E-11	1.3E-11	1.2E-11	8.6E-11	1.2E-11	7.2E-10	5.4E-11	2.6E-10	1.2E-11	1.5E-11	3.5E-11
birth+5	1.3E-11	1.3E-11	1.2E-11	8.6E-11	1.2E-11	7.2E-10	5.4E-11	2.6E-10	1.2E-11	1.5E-11	3.5E-11
birth+10	1.3E-11	1.3E-11	1.2E-11	8.5E-11	1.2E-11	7.2E-10	5.4E-11	2.6E-10	1.2E-11	1.5E-11	3.5E-11
birth+15	1.3E-11	1.3E-11	1.2E-11	8.4E-11	1.2E-11	7.1E-10	5.3E-11	2.5E-10	1.2E-11	1.5E-11	3.4E-11
birth+20	1.2E-11	1.2E-11	1.1E-11	8.2E-11	1.1E-11	6.9E-10	5.1E-11	2.5E-10	1.1E-11	1.4E-11	3.3E-11
-260	2.0E-14	2.0E-14	1.8E-14	1.3E-13	1.8E-14	1.1E-12	8.2E-14	3.9E-13	1.8E-14	2.3E-14	5.3E-14
-52	3.0E-14	3.0E-14	2.8E-14	2.0E-13	2.8E-14	1.7E-12	1.3E-13	6.1E-13	2.8E-14	3.5E-14	8.2E-14
conception	3.7E-13	3.7E-13	3.4E-13	2.5E-12	3.4E-13	2.1E-11	1.5E-12	7.4E-12	3.4E-13	4.3E-13	1.0E-12
lactation	1.3E-11	1.3E-11	1.2E-11	8.3E-11	1.2E-11	7.0E-10	5.2E-11	2.5E-10	1.2E-11	1.4E-11	3.4E-11

Dose coefficients (Sv/Bq) for the offspring from mothers' milk  
following intake of U-238 ( $T_{1/2} = 4.47E+09$  y) by the mother

Scenario*	Testes	Ovaries	Brain	R.B.M.	Thyroid	Bone sur	Liver	Kidneys	Spleen	Remainder	Effective
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type F fl = 0.02											
-130	2.5E-12	2.3E-12	2.3E-12	1.6E-11	2.3E-12	1.3E-10	1.0E-11	4.9E-11	2.3E-12	2.9E-12	6.7E-12
-26	3.8E-12	3.5E-12	3.5E-12	2.5E-11	3.5E-12	2.0E-10	1.5E-11	7.3E-11	3.5E-12	4.4E-12	1.0E-11
conception	7.7E-12	7.1E-12	7.1E-12	5.0E-11	7.1E-12	4.1E-10	3.1E-11	1.5E-10	7.1E-12	8.9E-12	2.0E-11
+5	1.0E-11	9.3E-12	9.3E-12	6.5E-11	9.3E-12	5.3E-10	4.0E-11	1.9E-10	9.3E-12	1.2E-11	2.6E-11
+10	1.4E-11	1.3E-11	1.3E-11	8.8E-11	1.3E-11	7.2E-10	5.5E-11	2.6E-10	1.3E-11	1.6E-11	3.6E-11
+15	1.9E-11	1.8E-11	1.8E-11	1.3E-10	1.8E-11	1.0E-09	7.8E-11	3.7E-10	1.8E-11	2.2E-11	5.1E-11
+25	4.6E-11	4.2E-11	4.2E-11	3.0E-10	4.2E-11	2.4E-09	1.8E-10	8.8E-10	4.2E-11	5.3E-11	1.2E-10
+35	1.5E-10	1.4E-10	1.4E-10	9.9E-10	1.4E-10	8.1E-09	6.1E-10	2.9E-09	1.4E-10	1.8E-10	4.0E-10
birth	3.3E-10	3.1E-10	3.1E-10	2.2E-09	3.1E-10	1.8E-08	1.3E-09	6.4E-09	3.1E-10	3.9E-10	8.7E-10
birth+1	1.8E-09	1.7E-09	1.7E-09	1.2E-08	1.7E-09	9.8E-08	7.4E-09	3.5E-08	1.7E-09	2.1E-09	4.8E-09
birth+5	1.8E-09	1.7E-09	1.7E-09	1.2E-08	1.7E-09	9.7E-08	7.3E-09	3.5E-08	1.7E-09	2.1E-09	4.8E-09
birth+10	1.8E-09	1.7E-09	1.7E-09	1.2E-08	1.7E-09	9.7E-08	7.3E-09	3.5E-08	1.7E-09	2.1E-09	4.8E-09
birth+15	1.8E-09	1.7E-09	1.7E-09	1.2E-08	1.7E-09	9.5E-08	7.2E-09	3.5E-08	1.7E-09	2.1E-09	4.7E-09
birth+20	1.7E-09	1.6E-09	1.6E-09	1.1E-08	1.6E-09	9.3E-08	7.0E-09	3.4E-08	1.6E-09	2.0E-09	4.6E-09
-260	2.8E-12	2.6E-12	2.6E-12	1.8E-11	2.6E-12	1.5E-10	1.1E-11	5.4E-11	2.6E-12	3.2E-12	7.4E-12
-52	4.3E-12	4.0E-12	4.0E-12	2.8E-11	4.0E-12	2.3E-10	1.7E-11	8.3E-11	4.0E-12	5.0E-12	1.1E-11
conception	5.2E-11	4.8E-11	4.8E-11	3.4E-10	4.8E-11	2.8E-09	2.1E-10	1.0E-09	4.8E-11	6.0E-11	1.4E-10
lactation	1.8E-09	1.6E-09	1.6E-09	1.1E-08	1.6E-09	9.4E-08	7.1E-09	3.4E-08	1.6E-09	2.0E-09	4.6E-09
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type M fl = 0.02											
-130	7.6E-13	7.1E-13	7.1E-13	4.9E-12	7.1E-13	4.1E-11	3.1E-12	1.5E-11	7.1E-13	8.8E-13	2.0E-12
-26	9.9E-12	9.2E-12	9.2E-12	6.4E-11	9.2E-12	5.3E-10	4.0E-11	1.9E-10	9.2E-12	1.1E-11	2.7E-11
conception	2.8E-11	2.5E-11	2.5E-11	1.8E-10	2.5E-11	1.5E-09	1.1E-10	5.3E-10	2.5E-11	3.2E-11	7.5E-11
+5	3.4E-11	3.1E-11	3.1E-11	2.2E-10	3.1E-11	1.8E-09	1.3E-10	6.5E-10	3.1E-11	3.9E-11	9.1E-11
+10	4.1E-11	3.8E-11	3.8E-11	2.7E-10	3.8E-11	2.2E-09	1.7E-10	8.0E-10	3.8E-11	4.8E-11	1.1E-10
+15	5.1E-11	4.7E-11	4.7E-11	3.3E-10	4.7E-11	2.7E-09	2.0E-10	9.8E-10	4.7E-11	5.9E-11	1.4E-10
+25	7.9E-11	7.3E-11	7.3E-11	5.1E-10	7.3E-11	4.2E-09	3.2E-10	1.5E-09	7.3E-11	9.2E-11	2.1E-10
+35	1.4E-10	1.3E-10	1.3E-10	8.9E-10	1.3E-10	7.3E-09	5.5E-10	2.6E-09	1.3E-10	1.6E-10	3.7E-10
birth	1.8E-10	1.7E-10	1.7E-10	1.2E-09	1.7E-10	9.7E-09	7.3E-10	3.5E-09	1.7E-10	2.1E-10	4.9E-10
birth+1	3.7E-10	3.5E-10	3.5E-10	2.4E-09	3.5E-10	2.0E-08	1.5E-09	7.2E-09	3.5E-10	4.3E-10	9.9E-10
birth+5	3.6E-10	3.3E-10	3.3E-10	2.3E-09	3.3E-10	1.9E-08	1.4E-09	6.9E-09	3.3E-10	4.2E-10	9.5E-10
birth+10	3.4E-10	3.1E-10	3.1E-10	2.2E-09	3.1E-10	1.8E-08	1.4E-09	6.6E-09	3.1E-10	3.9E-10	9.0E-10
birth+15	3.1E-10	2.9E-10	2.9E-10	2.0E-09	2.9E-10	1.7E-08	1.3E-09	6.0E-09	2.9E-10	3.6E-10	8.2E-10
birth+20	2.8E-10	2.5E-10	2.5E-10	1.8E-09	2.5E-10	1.5E-08	1.1E-09	5.3E-09	2.5E-10	3.2E-10	7.2E-10
-260	3.1E-12	2.9E-12	2.9E-12	2.0E-11	2.9E-12	1.7E-10	1.3E-11	6.1E-11	2.9E-12	3.6E-12	8.5E-12
-52	1.2E-11	1.1E-11	1.1E-11	7.7E-11	1.1E-11	6.3E-10	4.7E-11	2.3E-10	1.1E-11	1.4E-11	3.2E-11
conception	7.1E-11	6.6E-11	6.6E-11	4.6E-10	6.6E-11	3.8E-09	2.9E-10	1.4E-09	6.6E-11	8.3E-11	1.9E-10
lactation	3.1E-10	2.9E-10	2.9E-10	2.0E-09	2.9E-10	1.7E-08	1.3E-09	6.0E-09	2.9E-10	3.6E-10	8.3E-10
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type S fl = 0.002											
-130	1.4E-12	1.3E-12	1.3E-12	9.4E-12	1.3E-12	7.7E-11	5.8E-12	2.8E-11	1.3E-12	1.7E-12	3.9E-12
-26	2.6E-12	2.4E-12	2.4E-12	1.7E-11	2.4E-12	1.4E-10	1.1E-11	5.1E-11	2.4E-12	3.0E-12	7.1E-12
conception	3.1E-12	2.9E-12	2.9E-12	2.0E-11	2.9E-12	1.7E-10	1.3E-11	6.0E-11	2.9E-12	3.6E-12	8.5E-12
+5	3.2E-12	3.0E-12	3.0E-12	2.1E-11	3.0E-12	1.7E-10	1.3E-11	6.2E-11	3.0E-12	3.8E-12	8.8E-12
+10	3.4E-12	3.1E-12	3.1E-12	2.2E-11	3.1E-12	1.8E-10	1.3E-11	6.5E-11	3.1E-12	3.9E-12	9.1E-12
+15	3.5E-12	3.2E-12	3.2E-12	2.3E-11	3.2E-12	1.9E-10	1.4E-11	6.8E-11	3.2E-12	4.1E-12	9.5E-12
+25	3.9E-12	3.6E-12	3.6E-12	2.6E-11	3.6E-12	2.1E-10	1.6E-11	7.6E-11	3.6E-12	4.6E-12	1.1E-11
+35	5.0E-12	4.6E-12	4.6E-12	3.2E-11	4.6E-12	2.7E-10	2.0E-11	9.6E-11	4.6E-12	5.8E-12	1.3E-11
birth	6.2E-12	5.7E-12	5.7E-12	4.0E-11	5.7E-12	3.3E-10	2.5E-11	1.2E-10	5.7E-12	7.2E-12	1.7E-11
birth+1	1.2E-11	1.1E-11	1.1E-11	7.8E-11	1.1E-11	6.4E-10	4.8E-11	2.3E-10	1.1E-11	1.4E-11	3.2E-11
birth+5	1.1E-11	1.0E-11	1.0E-11	7.3E-11	1.0E-11	6.0E-10	4.5E-11	2.2E-10	1.0E-11	1.3E-11	3.0E-11
birth+10	1.1E-11	9.7E-12	9.7E-12	6.8E-11	9.7E-12	5.6E-10	4.2E-11	2.0E-10	9.7E-12	1.2E-11	2.8E-11
birth+15	9.5E-12	8.8E-12	8.8E-12	6.2E-11	8.8E-12	5.1E-10	3.8E-11	1.8E-10	8.8E-12	1.1E-11	2.5E-11
birth+20	8.4E-12	7.7E-12	7.7E-12	5.4E-11	7.7E-12	4.4E-10	3.3E-11	1.6E-10	7.7E-12	9.7E-12	2.2E-11
-260	1.6E-12	1.5E-12	1.5E-12	1.0E-11	1.5E-12	8.6E-11	6.5E-12	3.1E-11	1.5E-12	1.9E-12	4.4E-12
-52	2.7E-12	2.5E-12	2.5E-12	1.7E-11	2.5E-12	1.4E-10	1.1E-11	5.1E-11	2.5E-12	3.1E-12	7.2E-12
conception	3.9E-12	3.6E-12	3.6E-12	2.5E-11	3.6E-12	2.0E-10	1.5E-11	7.4E-11	3.6E-12	4.5E-12	1.0E-11
lactation	9.7E-12	9.0E-12	9.0E-12	6.3E-11	9.0E-12	5.2E-10	3.9E-11	1.9E-10	9.0E-12	1.1E-11	2.6E-11

Dose coefficients (Sv/Bq) for the offspring from mothers' milk  
following intake of U-238 ( $T_{1/2} = 4.47E+09$  y) by the mother (continued)

Scenario*	Testes	Ovaries	Brain	R.B.M.	Thyroid	Bone sur	Liver	Kidneys	Spleen	Remainder	Effective
Ingestion: fl = 0.02											
-130	1.8E-13	1.7E-13	1.7E-13	1.2E-12	1.7E-13	9.5E-12	7.2E-13	3.5E-12	1.7E-13	2.1E-13	4.7E-13
-26	2.7E-13	2.5E-13	2.5E-13	1.7E-12	2.5E-13	1.4E-11	1.1E-12	5.2E-12	2.5E-13	3.1E-13	7.1E-13
conception	5.5E-13	5.1E-13	5.1E-13	3.5E-12	5.1E-13	2.9E-11	2.2E-12	1.1E-11	5.1E-13	6.3E-13	1.4E-12
+5	7.1E-13	6.6E-13	6.6E-13	4.6E-12	6.6E-13	3.8E-11	2.8E-12	1.4E-11	6.6E-13	8.2E-13	1.9E-12
+10	9.7E-13	8.9E-13	8.9E-13	6.3E-12	8.9E-13	5.1E-11	3.9E-12	1.9E-11	8.9E-13	1.1E-12	2.5E-12
+15	1.4E-12	1.3E-12	1.3E-12	8.9E-12	1.3E-12	7.3E-11	5.5E-12	2.7E-11	1.3E-12	1.6E-12	3.6E-12
+25	3.3E-12	3.0E-12	3.0E-12	2.1E-11	3.0E-12	1.7E-10	1.3E-11	6.3E-11	3.0E-12	3.8E-12	8.6E-12
+35	1.1E-11	1.0E-11	1.0E-11	7.1E-11	1.0E-11	5.8E-10	4.4E-11	2.1E-10	1.0E-11	1.3E-11	2.9E-11
birth	2.7E-11	2.5E-11	2.5E-11	1.7E-10	2.5E-11	1.4E-09	1.1E-10	5.2E-10	2.5E-11	3.1E-11	7.0E-11
birth+1	1.3E-10	1.2E-10	1.2E-10	8.4E-10	1.2E-10	6.9E-09	5.2E-10	2.5E-09	1.2E-10	1.5E-10	3.4E-10
birth+5	1.3E-10	1.2E-10	1.2E-10	8.4E-10	1.2E-10	6.9E-09	5.2E-10	2.5E-09	1.2E-10	1.5E-10	3.4E-10
birth+10	1.3E-10	1.2E-10	1.2E-10	8.3E-10	1.2E-10	6.9E-09	5.2E-10	2.5E-09	1.2E-10	1.5E-10	3.4E-10
birth+15	1.3E-10	1.2E-10	1.2E-10	8.2E-10	1.2E-10	6.8E-09	5.1E-10	2.4E-09	1.2E-10	1.5E-10	3.3E-10
birth+20	1.2E-10	1.1E-10	1.1E-10	8.0E-10	1.1E-10	6.6E-09	5.0E-10	2.4E-09	1.1E-10	1.4E-10	3.2E-10
-260	2.0E-13	1.8E-13	1.8E-13	1.3E-12	1.8E-13	1.0E-11	7.9E-13	3.8E-12	1.8E-13	2.3E-13	5.2E-13
-52	3.0E-13	2.8E-13	2.8E-13	2.0E-12	2.8E-13	1.6E-11	1.2E-12	5.9E-12	2.8E-13	3.5E-13	8.0E-13
conception	3.7E-12	3.4E-12	3.4E-12	2.4E-11	3.4E-12	2.0E-10	1.5E-11	7.1E-11	3.4E-12	4.3E-12	9.7E-12
lactation	1.3E-10	1.2E-10	1.2E-10	8.1E-10	1.2E-10	6.7E-09	5.0E-10	2.4E-09	1.2E-10	1.4E-10	3.3E-10
Ingestion: fl = 0.002											
-130	1.8E-14	1.7E-14	1.7E-14	1.2E-13	1.7E-14	9.5E-13	7.2E-14	3.5E-13	1.7E-14	2.1E-14	4.7E-14
-26	2.7E-14	2.5E-14	2.5E-14	1.7E-13	2.5E-14	1.4E-12	1.1E-13	5.2E-13	2.5E-14	3.1E-14	7.1E-14
conception	5.5E-14	5.1E-14	5.1E-14	3.5E-13	5.1E-14	2.9E-12	2.2E-13	1.1E-12	5.1E-14	6.3E-14	1.4E-13
+5	7.1E-14	6.6E-14	6.6E-14	4.6E-13	6.6E-14	3.8E-12	2.8E-13	1.4E-12	6.6E-14	8.2E-14	1.9E-13
+10	9.7E-14	8.9E-14	8.9E-14	6.3E-13	8.9E-14	5.1E-12	3.9E-13	1.9E-12	8.9E-14	1.1E-13	2.5E-13
+15	1.4E-13	1.3E-13	1.3E-13	8.9E-13	1.3E-13	7.3E-12	5.5E-13	2.7E-12	1.3E-13	1.6E-13	3.6E-13
+25	3.3E-13	3.0E-13	3.0E-13	2.1E-12	3.0E-13	1.7E-11	1.3E-12	6.3E-12	3.0E-13	3.8E-13	8.6E-13
+35	1.1E-12	1.0E-12	1.0E-12	7.1E-12	1.0E-12	5.8E-11	4.4E-12	2.1E-11	1.0E-12	1.3E-12	2.9E-12
birth	2.7E-12	2.5E-12	2.5E-12	1.7E-11	2.5E-12	1.4E-10	1.1E-11	5.2E-11	2.5E-12	3.1E-12	7.1E-12
birth+1	1.3E-11	1.2E-11	1.2E-11	8.4E-11	1.2E-11	6.9E-10	5.2E-11	2.5E-10	1.2E-11	1.5E-11	3.4E-11
birth+5	1.3E-11	1.2E-11	1.2E-11	8.4E-11	1.2E-11	6.9E-10	5.2E-11	2.5E-10	1.2E-11	1.5E-11	3.4E-11
birth+10	1.3E-11	1.2E-11	1.2E-11	8.3E-11	1.2E-11	6.9E-10	5.2E-11	2.5E-10	1.2E-11	1.5E-11	3.4E-11
birth+15	1.3E-11	1.2E-11	1.2E-11	8.2E-11	1.2E-11	6.8E-10	5.1E-11	2.4E-10	1.2E-11	1.5E-11	3.3E-11
birth+20	1.2E-11	1.1E-11	1.1E-11	8.0E-11	1.1E-11	6.6E-10	5.0E-11	2.4E-10	1.1E-11	1.4E-11	3.2E-11
-260	2.0E-14	1.8E-14	1.8E-14	1.3E-13	1.8E-14	1.0E-12	7.9E-14	3.8E-13	1.8E-14	2.3E-14	5.2E-14
-52	3.0E-14	2.8E-14	2.8E-14	2.0E-13	2.8E-14	1.6E-12	1.2E-13	5.9E-13	2.8E-14	3.5E-14	8.0E-14
conception	3.7E-13	3.4E-13	3.4E-13	2.4E-12	3.4E-13	2.0E-11	1.5E-12	7.1E-12	3.4E-13	4.3E-13	9.7E-13
lactation	1.3E-11	1.2E-11	1.2E-11	8.1E-11	1.2E-11	6.7E-10	5.0E-11	2.4E-10	1.2E-11	1.4E-11	3.3E-11

Dose coefficients (Sv/Bq) for the offspring from mothers' milk  
following intake of Pu-239 ( $T_{1/2} = 2.41E+04$  y) by the mother

Scenario*	Testes	Ovaries	Brain	R.B.M.	Thyroid	Bone sur	Liver	Kidneys	Spleen	Remainder	Effective
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type M f1 = 0.0005											
-130	2.0E-10	1.8E-10	6.2E-11	1.2E-09	6.2E-11	8.3E-09	3.1E-09	1.7E-10	6.2E-11	6.4E-11	4.7E-10
-26	3.1E-10	2.8E-10	9.6E-11	1.9E-09	9.6E-11	1.3E-08	4.9E-09	2.6E-10	9.6E-11	1.0E-10	7.4E-10
conception	5.1E-10	4.6E-10	1.6E-10	3.1E-09	1.6E-10	2.1E-08	8.0E-09	4.3E-10	1.6E-10	1.6E-10	1.2E-09
+5	5.8E-10	5.2E-10	1.8E-10	3.5E-09	1.8E-10	2.4E-08	9.0E-09	4.8E-10	1.8E-10	1.8E-10	1.4E-09
+10	6.6E-10	5.9E-10	2.0E-10	4.1E-09	2.0E-10	2.7E-08	1.0E-08	5.5E-10	2.0E-10	2.1E-10	1.5E-09
+15	7.7E-10	6.8E-10	2.3E-10	4.7E-09	2.3E-10	3.2E-08	1.2E-08	6.4E-10	2.3E-10	2.4E-10	1.8E-09
+25	1.1E-09	9.5E-10	3.3E-10	6.6E-09	3.3E-10	4.4E-08	1.7E-08	8.9E-10	3.3E-10	3.4E-10	2.5E-09
+35	1.7E-09	1.5E-09	5.1E-10	1.0E-08	5.1E-10	6.8E-08	2.6E-08	1.4E-09	5.1E-10	5.3E-10	3.9E-09
birth	2.7E-09	2.4E-09	8.1E-10	1.6E-08	8.1E-10	1.1E-07	4.1E-08	2.2E-09	8.1E-10	8.4E-10	6.2E-09
birth+1	4.4E-09	3.9E-09	1.3E-09	2.7E-08	1.3E-09	1.8E-07	6.9E-08	3.7E-09	1.3E-09	1.4E-09	1.0E-08
birth+5	4.2E-09	3.8E-09	1.3E-09	2.6E-08	1.3E-09	1.7E-07	6.6E-08	3.5E-09	1.3E-09	1.3E-09	9.9E-09
birth+10	4.0E-09	3.5E-09	1.2E-09	2.4E-08	1.2E-09	1.6E-07	6.2E-08	3.3E-09	1.2E-09	1.1E-09	9.3E-09
birth+15	3.6E-09	3.2E-09	1.1E-09	2.2E-08	1.1E-09	1.5E-07	5.6E-08	3.0E-09	1.1E-09	1.1E-09	8.5E-09
birth+20	3.2E-09	2.8E-09	9.8E-10	2.0E-08	9.8E-10	1.3E-07	5.0E-08	2.7E-09	9.8E-10	1.0E-09	7.5E-09
-260	2.3E-10	2.0E-10	7.0E-11	1.4E-09	7.0E-11	9.4E-09	3.6E-09	1.9E-10	7.0E-11	7.2E-11	5.3E-10
-52	3.4E-10	3.0E-10	1.0E-10	2.1E-09	1.0E-10	1.4E-08	5.2E-09	2.8E-10	1.0E-10	1.1E-10	7.9E-10
conception	9.8E-10	8.8E-10	3.0E-10	6.0E-09	3.0E-10	4.0E-08	1.5E-08	8.2E-10	3.0E-10	3.1E-10	2.3E-09
lactation	3.7E-09	3.2E-09	1.1E-09	2.2E-08	1.1E-09	1.5E-07	5.7E-08	3.0E-09	1.1E-09	1.2E-09	8.5E-09
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type S f1 = 0.00001											
-130	2.9E-11	2.5E-11	8.7E-12	1.7E-10	8.7E-12	1.2E-09	4.4E-10	2.4E-11	8.7E-12	9.0E-12	6.7E-11
-26	4.0E-11	3.5E-11	1.2E-11	2.4E-10	1.2E-11	1.6E-09	6.2E-10	3.3E-11	1.2E-11	1.3E-11	9.3E-11
conception	4.4E-11	3.9E-11	1.4E-11	2.7E-10	1.4E-11	1.8E-09	6.9E-10	3.7E-11	1.4E-11	1.4E-11	1.0E-10
+5	4.5E-11	4.0E-11	1.4E-11	2.8E-10	1.4E-11	1.9E-09	7.1E-10	3.8E-11	1.4E-11	1.4E-11	1.1E-10
+10	4.6E-11	4.1E-11	1.4E-11	2.8E-10	1.4E-11	1.9E-09	7.2E-10	3.9E-11	1.4E-11	1.5E-11	1.1E-10
+15	4.8E-11	4.2E-11	1.5E-11	2.9E-10	1.5E-11	2.0E-09	7.4E-10	4.0E-11	1.5E-11	1.5E-11	1.1E-10
+25	5.1E-11	4.5E-11	1.6E-11	3.1E-10	1.6E-11	2.1E-09	7.9E-10	4.2E-11	1.6E-11	1.6E-11	1.2E-10
+35	5.8E-11	5.1E-11	1.8E-11	3.5E-10	1.8E-11	2.4E-09	9.0E-10	4.8E-11	1.8E-11	1.8E-11	1.3E-10
birth	6.9E-11	6.1E-11	2.1E-11	4.2E-10	2.1E-11	2.8E-09	1.1E-09	5.7E-11	2.1E-11	2.2E-11	1.6E-10
birth+1	8.5E-11	7.6E-11	2.6E-11	5.2E-10	2.6E-11	3.5E-09	1.3E-09	7.1E-11	2.6E-11	2.7E-11	2.0E-10
birth+5	7.7E-11	6.9E-11	2.4E-11	4.7E-10	2.4E-11	3.2E-09	1.2E-09	6.4E-11	2.4E-11	2.4E-11	1.8E-10
birth+10	6.7E-11	5.9E-11	2.0E-11	4.1E-10	2.0E-11	2.7E-09	1.0E-09	5.6E-11	2.0E-11	2.1E-11	1.6E-10
birth+15	5.5E-11	4.9E-11	1.7E-11	3.4E-10	1.7E-11	2.3E-09	8.6E-10	4.6E-11	1.7E-11	1.8E-11	1.3E-10
birth+20	4.3E-11	3.8E-11	1.3E-11	2.6E-10	1.3E-11	1.8E-09	6.6E-10	3.6E-11	1.3E-11	1.4E-11	1.0E-10
-260	3.0E-11	2.7E-11	9.2E-12	1.8E-10	9.2E-12	1.2E-09	4.7E-10	2.5E-11	9.2E-12	9.6E-12	7.1E-11
-52	4.0E-11	3.6E-11	1.2E-11	2.5E-10	1.2E-11	1.6E-09	6.2E-10	3.3E-11	1.2E-11	1.3E-11	9.4E-11
conception	5.0E-11	4.4E-11	1.5E-11	3.1E-10	1.5E-11	2.1E-09	7.8E-10	4.2E-11	1.5E-11	1.6E-11	1.2E-10
lactation	5.9E-11	5.2E-11	1.8E-11	3.6E-10	1.8E-11	2.4E-09	9.1E-10	4.9E-11	1.8E-11	1.9E-11	1.4E-10
Ingestion: f1 = 0.0005											
-130	1.7E-12	1.5E-12	5.1E-13	1.0E-11	5.1E-13	6.8E-11	2.6E-11	1.4E-12	5.1E-13	5.3E-13	3.9E-12
-26	1.8E-12	1.6E-12	5.4E-13	1.1E-11	5.4E-13	7.3E-11	2.8E-11	1.5E-12	5.4E-13	5.6E-13	4.1E-12
conception	1.7E-12	1.5E-12	5.3E-13	1.1E-11	5.3E-13	7.1E-11	2.7E-11	1.4E-12	5.3E-13	5.5E-13	4.0E-12
+5	1.7E-12	1.5E-12	5.2E-13	1.0E-11	5.2E-13	7.0E-11	2.7E-11	1.4E-12	5.2E-13	5.4E-13	4.0E-12
+10	1.7E-12	1.5E-12	5.1E-13	1.0E-11	5.1E-13	6.9E-11	2.6E-11	1.4E-12	5.1E-13	5.3E-13	3.9E-12
+15	1.6E-12	1.4E-12	5.0E-13	9.9E-12	5.0E-13	6.7E-11	2.5E-11	1.4E-12	5.0E-13	5.1E-13	3.8E-12
+25	1.5E-12	1.3E-12	4.5E-13	9.0E-12	4.5E-13	6.1E-11	2.3E-11	1.2E-12	4.5E-13	4.7E-13	3.5E-12
+35	1.2E-12	1.1E-12	3.8E-13	7.5E-12	3.8E-13	5.1E-11	1.9E-11	1.0E-12	3.8E-13	3.9E-13	2.9E-12
birth	1.5E-11	1.3E-11	4.6E-12	9.1E-11	4.6E-12	6.1E-10	2.3E-10	1.2E-11	4.6E-12	4.7E-12	3.5E-11
birth+1	4.5E-11	4.0E-11	1.4E-11	2.7E-10	1.4E-11	1.8E-09	7.0E-10	3.7E-11	1.4E-11	1.4E-11	1.0E-10
birth+5	4.4E-11	4.0E-11	1.4E-11	2.7E-10	1.4E-11	1.8E-09	6.9E-10	3.7E-11	1.4E-11	1.4E-11	1.0E-10
birth+10	4.4E-11	3.9E-11	1.4E-11	2.7E-10	1.4E-11	1.8E-09	6.9E-10	3.7E-11	1.4E-11	1.4E-11	1.0E-10
birth+15	4.4E-11	3.9E-11	1.3E-11	2.7E-10	1.3E-11	1.8E-09	6.8E-10	3.7E-11	1.3E-11	1.4E-11	1.0E-10
birth+20	4.4E-11	3.9E-11	1.3E-11	2.7E-10	1.3E-11	1.8E-09	6.8E-10	3.7E-11	1.3E-11	1.4E-11	1.0E-10
-260	1.7E-12	1.5E-12	5.1E-13	1.0E-11	5.1E-13	6.9E-11	2.6E-11	1.4E-12	5.1E-13	5.3E-13	3.9E-12
-52	1.8E-12	1.6E-12	5.4E-13	1.1E-11	5.4E-13	7.3E-11	2.8E-11	1.5E-12	5.4E-13	5.6E-13	4.1E-12
conception	1.7E-12	1.5E-12	5.1E-13	1.0E-11	5.1E-13	6.8E-11	2.6E-11	1.4E-12	5.1E-13	5.3E-13	3.9E-12
lactation	4.4E-11	3.9E-11	1.3E-11	2.7E-10	1.3E-11	1.8E-09	6.8E-10	3.6E-11	1.3E-11	1.4E-11	1.0E-10

Dose coefficients (Sv/Bq) for the offspring from mothers' milk  
following intake of Pu-239 ( $T_{1/2} = 2.41E+04$  y) by the mother (continued)

Scenario*	Testes	Ovaries	Brain	R.B.M.	Thyroid	Bone sur	Liver	Kidneys	Spleen	Remainder	Effective
Ingestion: f1 = 0.00001											
-130	3.3E-14	3.0E-14	1.0E-14	2.0E-13	1.0E-14	1.4E-12	5.2E-13	2.8E-14	1.0E-14	1.1E-14	7.8E-14
-26	3.5E-14	3.2E-14	1.1E-14	2.2E-13	1.1E-14	1.5E-12	5.5E-13	3.0E-14	1.1E-14	1.1E-14	8.3E-14
conception	3.5E-14	3.1E-14	1.1E-14	2.1E-13	1.1E-14	1.4E-12	5.4E-13	2.9E-14	1.1E-14	1.1E-14	8.1E-14
+5	3.4E-14	3.0E-14	1.0E-14	2.1E-13	1.0E-14	1.4E-12	5.3E-13	2.8E-14	1.0E-14	1.1E-14	8.0E-14
+10	3.3E-14	3.0E-14	1.0E-14	2.0E-13	1.0E-14	1.4E-12	5.2E-13	2.8E-14	1.0E-14	1.1E-14	7.8E-14
+15	3.3E-14	2.9E-14	9.9E-15	2.0E-13	9.9E-15	1.3E-12	5.1E-13	2.7E-14	9.9E-15	1.0E-14	7.6E-14
+25	3.0E-14	2.6E-14	9.0E-15	1.8E-13	9.0E-15	1.2E-12	4.6E-13	2.5E-14	9.0E-15	9.4E-15	6.9E-14
+35	2.5E-14	2.2E-14	7.5E-15	1.5E-13	7.5E-15	1.0E-12	3.8E-13	2.1E-14	7.5E-15	7.8E-15	5.8E-14
birth	3.0E-13	2.7E-13	9.1E-14	1.8E-12	9.1E-14	1.2E-11	4.6E-12	2.5E-13	9.1E-14	9.5E-14	7.0E-13
birth+1	8.9E-13	7.9E-13	2.7E-13	5.5E-12	2.7E-13	3.7E-11	1.4E-11	7.4E-13	2.7E-13	2.8E-13	2.1E-12
birth+5	8.9E-13	7.9E-13	2.7E-13	5.4E-12	2.7E-13	3.7E-11	1.4E-11	7.4E-13	2.7E-13	2.8E-13	2.1E-12
birth+10	8.8E-13	7.9E-13	2.7E-13	5.4E-12	2.7E-13	3.6E-11	1.4E-11	7.4E-13	2.7E-13	2.8E-13	2.1E-12
birth+15	8.8E-13	7.8E-13	2.7E-13	5.4E-12	2.7E-13	3.6E-11	1.4E-11	7.3E-13	2.7E-13	2.8E-13	2.1E-12
birth+20	8.8E-13	7.8E-13	2.7E-13	5.4E-12	2.7E-13	3.6E-11	1.4E-11	7.3E-13	2.7E-13	2.8E-13	2.0E-12
-260	3.3E-14	3.0E-14	1.0E-14	2.0E-13	1.0E-14	1.4E-12	5.2E-13	2.8E-14	1.0E-14	1.1E-14	7.8E-14
-52	3.5E-14	3.2E-14	1.1E-14	2.2E-13	1.1E-14	1.5E-12	5.5E-13	3.0E-14	1.1E-14	1.1E-14	8.3E-14
conception	3.3E-14	3.0E-14	1.0E-14	2.0E-13	1.0E-14	1.4E-12	5.2E-13	2.8E-14	1.0E-14	1.1E-14	7.7E-14
lactation	8.7E-13	7.8E-13	2.7E-13	5.3E-12	2.7E-13	3.6E-11	1.4E-11	7.3E-13	2.7E-13	2.8E-13	2.0E-12
Ingestion: f1 = 0.0001											
-130	3.3E-13	3.0E-13	1.0E-13	2.0E-12	1.0E-13	1.4E-11	5.2E-12	2.8E-13	1.0E-13	1.1E-13	7.8E-13
-26	3.5E-13	3.2E-13	1.1E-13	2.2E-12	1.1E-13	1.5E-11	5.5E-12	3.0E-13	1.1E-13	1.1E-13	8.3E-13
conception	3.5E-13	3.1E-13	1.1E-13	2.1E-12	1.1E-13	1.4E-11	5.4E-12	2.9E-13	1.1E-13	1.1E-13	8.1E-13
+5	3.4E-13	3.0E-13	1.0E-13	2.1E-12	1.0E-13	1.4E-11	5.3E-12	2.8E-13	1.0E-13	1.1E-13	8.0E-13
+10	3.3E-13	3.0E-13	1.0E-13	2.0E-12	1.0E-13	1.4E-11	5.2E-12	2.8E-13	1.0E-13	1.1E-13	7.8E-13
+15	3.3E-13	2.9E-13	9.9E-14	2.0E-12	9.9E-14	1.3E-11	5.1E-12	2.7E-13	9.9E-14	1.0E-13	7.6E-13
+25	3.0E-13	2.6E-13	9.0E-14	1.8E-12	9.0E-14	1.2E-11	4.6E-12	2.5E-13	9.0E-14	9.4E-14	6.9E-13
+35	2.5E-13	2.2E-13	7.5E-14	1.5E-12	7.5E-14	1.0E-11	3.8E-12	2.1E-13	7.5E-14	7.8E-14	5.8E-13
birth	3.0E-12	2.7E-12	9.1E-13	1.8E-11	9.1E-13	1.2E-10	4.6E-11	2.5E-12	9.1E-13	9.5E-13	7.0E-12
birth+1	8.9E-12	7.9E-12	2.7E-12	5.5E-11	2.7E-12	3.7E-10	1.4E-10	7.4E-12	2.7E-12	2.8E-12	2.1E-11
birth+5	8.9E-12	7.9E-12	2.7E-12	5.4E-11	2.7E-12	3.7E-10	1.4E-10	7.4E-12	2.7E-12	2.8E-12	2.1E-11
birth+10	8.8E-12	7.9E-12	2.7E-12	5.4E-11	2.7E-12	3.6E-10	1.4E-10	7.4E-12	2.7E-12	2.8E-12	2.1E-11
birth+15	8.8E-12	7.8E-12	2.7E-12	5.4E-11	2.7E-12	3.6E-10	1.4E-10	7.3E-12	2.7E-12	2.8E-12	2.1E-11
birth+20	8.8E-12	7.8E-12	2.7E-12	5.4E-11	2.7E-12	3.6E-10	1.4E-10	7.3E-12	2.7E-12	2.8E-12	2.0E-11
-260	3.3E-13	3.0E-13	1.0E-13	2.0E-12	1.0E-13	1.4E-11	5.2E-12	2.8E-13	1.0E-13	1.1E-13	7.8E-13
-52	3.5E-13	3.2E-13	1.1E-13	2.2E-12	1.1E-13	1.5E-11	5.5E-12	3.0E-13	1.1E-13	1.1E-13	8.3E-13
conception	3.3E-13	3.0E-13	1.0E-13	2.0E-12	1.0E-13	1.4E-11	5.2E-12	2.8E-13	1.0E-13	1.1E-13	7.7E-13
lactation	8.7E-12	7.8E-12	2.7E-12	5.3E-11	2.7E-12	3.6E-10	1.4E-10	7.3E-12	2.7E-12	2.8E-12	2.0E-11



Dose coefficients (Sv/Bq) for the offspring from mothers' milk  
following intake of Am-241 (T½ = 4.32E+02 y) by the mother

Scenario*	Testes	Ovaries	Brain	R.B.M.	Thyroid	Bone sur	Liver	Kidneys	Spleen	Remainder	Effective
Inhalation of particulate aerosol: AMAD = 5 um AMAD, Absorption Type M f1 = 0.0005											
-130	6.1E-10	5.6E-10	1.1E-10	3.6E-09	1.1E-10	2.1E-08	2.3E-09	4.3E-10	1.1E-10	1.1E-10	9.4E-10
-26	1.0E-09	9.2E-10	1.8E-10	5.9E-09	1.8E-10	3.5E-08	3.8E-09	7.1E-10	1.8E-10	1.8E-10	1.6E-09
conception	1.3E-09	1.2E-09	2.3E-10	7.7E-09	2.3E-10	4.6E-08	5.0E-09	9.4E-10	2.3E-10	2.4E-10	2.0E-09
+5	1.4E-09	1.3E-09	2.5E-10	8.3E-09	2.5E-10	4.9E-08	5.4E-09	1.0E-09	2.5E-10	2.6E-10	2.2E-09
+10	1.5E-09	1.4E-09	2.7E-10	9.0E-09	2.7E-10	5.3E-08	5.8E-09	1.1E-09	2.7E-10	2.8E-10	2.4E-09
+15	1.7E-09	1.5E-09	2.9E-10	9.8E-09	2.9E-10	5.8E-08	6.3E-09	1.2E-09	2.9E-10	3.1E-10	2.6E-09
+25	2.1E-09	1.9E-09	3.6E-10	1.2E-08	3.6E-10	7.1E-08	7.8E-09	1.5E-09	3.6E-10	3.8E-10	3.2E-09
+35	2.7E-09	2.5E-09	4.8E-10	1.6E-08	4.8E-10	9.5E-08	1.0E-08	1.9E-09	4.8E-10	5.0E-10	4.2E-09
birth	3.2E-09	3.0E-09	5.7E-10	1.9E-08	5.7E-10	1.1E-07	1.2E-08	2.3E-09	5.7E-10	5.9E-10	5.0E-09
birth+1	5.8E-09	5.3E-09	1.0E-09	3.4E-08	1.0E-09	2.0E-07	2.2E-08	4.1E-09	1.0E-09	1.1E-09	9.0E-09
birth+5	5.5E-09	5.0E-09	9.6E-10	3.2E-08	9.6E-10	1.9E-07	2.1E-08	3.9E-09	9.6E-10	1.0E-09	8.5E-09
birth+10	5.0E-09	4.6E-09	8.8E-10	2.9E-08	8.8E-10	1.7E-07	1.9E-08	3.6E-09	8.8E-10	9.2E-10	7.8E-09
birth+15	4.5E-09	4.1E-09	7.8E-10	2.6E-08	7.8E-10	1.6E-07	1.7E-08	3.2E-09	7.8E-10	8.2E-10	6.9E-09
birth+20	3.8E-09	3.5E-09	6.7E-10	2.2E-08	6.7E-10	1.3E-07	1.4E-08	2.7E-09	6.7E-10	7.0E-10	5.9E-09
-260	6.8E-10	6.2E-10	1.2E-10	4.0E-09	1.2E-10	2.3E-08	2.6E-09	4.8E-10	1.2E-10	1.2E-10	1.0E-09
-52	1.0E-09	9.5E-10	1.8E-10	6.1E-09	1.8E-10	3.6E-08	3.9E-09	7.4E-10	1.8E-10	1.9E-10	1.6E-09
conception	1.9E-09	1.8E-09	3.4E-10	1.1E-08	3.4E-10	6.7E-08	7.3E-09	1.4E-09	3.4E-10	3.5E-10	3.0E-09
lactation	4.6E-09	4.2E-09	8.0E-10	2.7E-08	8.0E-10	1.6E-07	1.7E-08	3.3E-09	8.0E-10	8.4E-10	7.1E-09
Ingestion: f1 = 0.0005											
-130	4.9E-12	4.5E-12	8.6E-13	2.9E-11	8.6E-13	1.7E-10	1.9E-11	3.5E-12	8.6E-13	9.0E-13	7.6E-12
-26	7.2E-12	6.6E-12	1.3E-12	4.2E-11	1.3E-12	2.5E-10	2.7E-11	5.1E-12	1.3E-12	1.3E-12	1.1E-11
conception	8.1E-12	7.4E-12	1.4E-12	4.7E-11	1.4E-12	2.8E-10	3.1E-11	5.7E-12	1.4E-12	1.5E-12	1.2E-11
+5	8.3E-12	7.6E-12	1.4E-12	4.8E-11	1.4E-12	2.9E-10	3.1E-11	5.9E-12	1.4E-12	1.5E-12	1.3E-11
+10	8.5E-12	7.8E-12	1.5E-12	5.0E-11	1.5E-12	2.9E-10	3.2E-11	6.0E-12	1.5E-12	1.6E-12	1.3E-11
+15	8.8E-12	8.1E-12	1.5E-12	5.1E-11	1.5E-12	3.0E-10	3.3E-11	6.2E-12	1.5E-12	1.6E-12	1.4E-11
+25	9.6E-12	8.8E-12	1.7E-12	5.6E-11	1.7E-12	3.3E-10	3.7E-11	6.8E-12	1.7E-12	1.8E-12	1.5E-11
+35	1.1E-11	1.0E-11	2.0E-12	6.5E-11	2.0E-12	3.9E-10	4.2E-11	7.9E-12	2.0E-12	2.1E-12	1.7E-11
birth	1.6E-11	1.4E-11	2.8E-12	9.2E-11	2.8E-12	5.5E-10	6.0E-11	1.1E-11	2.8E-12	2.9E-12	2.4E-11
birth+1	6.0E-11	5.5E-11	1.1E-11	3.5E-10	1.1E-11	2.1E-09	2.3E-10	4.3E-11	1.1E-11	1.1E-11	9.3E-11
birth+5	5.9E-11	5.4E-11	1.0E-11	3.4E-10	1.0E-11	2.0E-09	2.2E-10	4.2E-11	1.0E-11	1.1E-11	9.1E-11
birth+10	5.7E-11	5.2E-11	1.0E-11	3.3E-10	1.0E-11	2.0E-09	2.2E-10	4.0E-11	1.0E-11	1.0E-11	8.8E-11
birth+15	5.5E-11	5.0E-11	9.6E-12	3.2E-10	9.6E-12	1.9E-09	2.1E-10	3.9E-11	9.6E-12	1.0E-11	8.4E-11
birth+20	5.2E-11	4.8E-11	9.2E-12	3.1E-10	9.2E-12	1.8E-09	2.0E-10	3.7E-11	9.2E-12	9.6E-12	8.1E-11
-260	5.2E-12	4.8E-12	9.1E-13	3.0E-11	9.1E-13	1.8E-10	2.0E-11	3.7E-12	9.1E-13	9.5E-13	8.0E-12
-52	7.2E-12	6.6E-12	1.3E-12	4.2E-11	1.3E-12	2.5E-10	2.7E-11	5.1E-12	1.3E-12	1.3E-12	1.1E-11
conception	9.4E-12	8.6E-12	1.6E-12	5.5E-11	1.6E-12	3.2E-10	3.6E-11	6.6E-12	1.6E-12	1.7E-12	1.4E-11
lactation	5.5E-11	5.0E-11	9.6E-12	3.2E-10	9.6E-12	1.9E-09	2.1E-10	3.9E-11	9.6E-12	1.0E-11	8.5E-11



**ANNEX C: COMPARISON OF DOSE COEFFICIENTS TO THE OFFSPRING  
WITH DOSES COEFFICIENTS FOR WORKERS TAKEN FROM ICRP  
PUBLICATION 68**

This Annex compares the dose coefficient for the offspring with the reference dose coefficient for the worker taken from ICRP Publication 68 (ICRP, 1994a). The comparison is made using a simple ratio, expressed in *per cent*, and all intake scenarios given in the tables of doses are considered.

A guide to the importance of each radionuclide and each intake scenario is given by a system of markers, \*, \*\*, and \*\*\*. These are the same as were adopted in Part 1 of this report; details are given below.

**TABLE C1. Categories for marks used in Annex B**

Category	$e_{\text{milk}}/e_{\text{worker}}$	Ratio in <i>per cent</i> (for comparison with Annex B)	Mark
1	$< 1/20$	$< 5\%$	Not marked
2	$1/20 - 1/6$	5 - 16.7%	*
3	$1/6 - 1$	16.8 - 100%	**
4	$> 1$	$> 100\%$	***

$e_{\text{milk}}$  is the effective dose coefficient for the infant taken from the main Tables and  $e_{\text{worker}}$  is the effective dose coefficient for workers taken from ICRP Publication 68.

The first line of each table gives the radionuclide, the type of intake, and the dose coefficient for the worker. F, M and S indicate inhalation of a 5µm AMAD aerosol of absorption Type F, M and S respectively, and I indicates ingestion. For inhalation of vapours the chemical compound is given in full. The codes in the first column indicate the intake scenario which are explained in section 4. The codes are as follows. Acute: 2½ years before conception (-130); 6 months before conception (-26); at conception; after 5, 10, 15, 25 and 35 weeks of gestation (+5 etc); at parturition (birth), and 1, 5, 10, 15 and 20 weeks after postpartum (birth+1 etc). Chronic: for 5 years before conception (-260); for 1 year before conception (-52); throughout the period of gestation (conception); and throughout the period of lactation (lactation).

H-3 Vapour: tritiated water vapour 1.8E-11  
 Exposure scenario

(weeks)*	e(milk)	% of e
-130	0.0E+00	0.00
-26	1.8E-16	0.00
conception	4.4E-15	0.02
+5	8.2E-15	0.05
+10	1.5E-14	0.08
+15	2.8E-14	0.16
+25	1.2E-13	0.69
+35	4.3E-12	24.10 **
birth	1.8E-11	98.42 **
birth+1	2.2E-11	121.03 ***
birth+5	2.2E-11	120.92 ***
birth+10	2.2E-11	120.71 ***
birth+15	2.2E-11	119.82 ***
birth+20	2.0E-11	113.17 ***
-260	1.4E-16	0.00
-52	6.9E-16	0.00
conception	1.0E-12	5.74 *
lactation	2.0E-11	111.68 ***

H-3 Vapour: tritium gas 1.8E-15  
 Exposure scenario

(weeks)*	e(milk)	% of e
-130	0.0E+00	0.00
-26	1.8E-20	0.00
conception	4.4E-19	0.02
+5	8.2E-19	0.05
+10	1.5E-18	0.08
+15	2.8E-18	0.16
+25	1.2E-17	0.69
+35	4.3E-16	24.10 **
birth	1.8E-15	98.42 **
birth+1	2.2E-15	121.03 ***
birth+5	2.2E-15	120.92 ***
birth+10	2.2E-15	120.71 ***
birth+15	2.2E-15	119.82 ***
birth+20	2.0E-15	113.17 ***
-260	1.4E-20	0.00
-52	6.9E-20	0.00
conception	1.0E-16	5.74 *
lactation	2.0E-15	111.68 ***

H-3 Vapour: methane 1.8E-13  
 Exposure scenario

(weeks)*	e(milk)	% of e
-130	0.0E+00	0.00
-26	1.8E-18	0.00
conception	4.4E-17	0.02
+5	8.2E-17	0.05
+10	1.5E-16	0.08
+15	2.8E-16	0.16
+25	1.2E-15	0.69
+35	4.3E-14	24.10 **
birth	1.8E-13	98.42 **
birth+1	2.2E-13	121.03 ***
birth+5	2.2E-13	120.92 ***
birth+10	2.2E-13	120.71 ***
birth+15	2.2E-13	119.82 ***
birth+20	2.0E-13	113.17 ***
-260	1.4E-18	0.00
-52	6.9E-18	0.00
conception	1.0E-14	5.74 *
lactation	2.0E-13	111.68 ***

H-3 I 1.8E-11  
 Exposure scenario  
 (weeks)\* e(milk) % of e  
 -130 0.0E+00 0.00  
 -26 1.8E-16 0.00  
 conception 4.4E-15 0.02  
 +5 8.2E-15 0.05  
 +10 1.5E-14 0.08  
 +15 2.8E-14 0.16  
 +25 1.2E-13 0.69  
 +35 4.3E-12 24.10 \*\*  
 birth 1.8E-11 98.42 \*\*  
 birth+1 2.2E-11 121.03 \*\*\*  
 birth+5 2.2E-11 120.92 \*\*\*  
 birth+10 2.2E-11 120.71 \*\*\*  
 birth+15 2.2E-11 119.82 \*\*\*  
 birth+20 2.0E-11 113.17 \*\*\*  
 -260 1.4E-16 0.00  
 -52 6.9E-16 0.00  
 conception 1.0E-12 5.74 \*  
 lactation 2.0E-11 111.68 \*\*\*

Organically bound tritium Vapour 4.1E-11  
 Exposure scenario  
 (weeks)\* e(milk) % of e  
 -130 0.0E+00 0.00  
 -26 5.7E-15 0.01  
 conception 1.4E-13 0.34  
 +5 2.5E-13 0.62  
 +10 4.7E-13 1.14  
 +15 8.6E-13 2.11  
 +25 3.0E-12 7.23 \*  
 +35 1.4E-11 33.75 \*\*  
 birth 3.1E-11 75.69 \*\*  
 birth+1 3.6E-11 87.07 \*\*  
 birth+5 3.5E-11 85.96 \*\*  
 birth+10 3.4E-11 83.44 \*\*  
 birth+15 3.2E-11 78.50 \*\*  
 birth+20 2.8E-11 67.38 \*\*  
 -260 4.3E-15 0.01  
 -52 2.2E-14 0.05  
 conception 4.0E-12 9.68 \*  
 lactation 3.0E-11 73.76 \*\*

Organically bound tritium I 4.2E-11  
 Exposure scenario  
 (weeks)\* e(milk) % of e  
 -130 0.0E+00 0.00  
 -26 5.6E-15 0.01  
 conception 1.4E-13 0.33  
 +5 2.5E-13 0.60  
 +10 4.7E-13 1.11  
 +15 8.6E-13 2.04  
 +25 2.9E-12 6.99 \*  
 +35 1.4E-11 32.66 \*\*  
 birth 3.1E-11 73.29 \*\*  
 birth+1 3.5E-11 84.17 \*\*  
 birth+5 3.5E-11 83.06 \*\*  
 birth+10 3.4E-11 80.66 \*\*  
 birth+15 3.2E-11 75.86 \*\*  
 birth+20 2.7E-11 65.09 \*\*  
 -260 4.3E-15 0.01  
 -52 2.1E-14 0.05  
 conception 3.9E-12 9.37 \*  
 lactation 3.0E-11 71.29 \*\*

C-14 Vapour : organic vapours 5.8E-10

Exposure scenario (weeks)*	e(milk)	% of e
-130	0.0E+00	0.00
-26	1.4E-13	0.02
conception	3.4E-12	0.58
+5	6.2E-12	1.06
+10	1.1E-11	1.95
+15	2.1E-11	3.58
+25	7.0E-11	12.04 *
+35	2.3E-10	40.48 **
birth	3.4E-10	58.24 **
birth+1	3.6E-10	61.29 **
birth+5	3.4E-10	59.38 **
birth+10	3.2E-10	55.20 **
birth+15	2.7E-10	47.29 **
birth+20	1.9E-10	33.04 **
-260	1.1E-13	0.02
-52	5.3E-13	0.09
conception	7.3E-11	12.51 *
lactation	2.6E-10	45.16 **

C-14 I 5.8E-10

Exposure scenario (weeks)*	e(milk)	% of e
-130	0.0E+00	0.00
-26	1.4E-13	0.02
conception	3.3E-12	0.57
+5	6.1E-12	1.05
+10	1.1E-11	1.93
+15	2.1E-11	3.55
+25	6.9E-11	11.92 *
+35	2.3E-10	40.12 **
birth	3.3E-10	57.69 **
birth+1	3.5E-10	60.68 **
birth+5	3.4E-10	58.78 **
birth+10	3.2E-10	54.65 **
birth+15	2.7E-10	46.80 **
birth+20	1.9E-10	32.68 **
-260	1.1E-13	0.02
-52	5.3E-13	0.09
conception	7.2E-11	12.40 *
lactation	2.6E-10	44.70 **

NA-22 F 2.0E-09

Exposure scenario (weeks)*	e(milk)	% of e
-130	3.4E-14	0.00
-26	1.6E-13	0.01
conception	2.3E-13	0.01
+5	2.5E-13	0.01
+10	2.7E-13	0.01
+15	3.0E-13	0.02
+25	1.3E-12	0.06
+35	1.3E-10	6.32 *
birth	5.5E-10	27.29 **
birth+1	6.6E-10	32.94 **
birth+5	6.6E-10	32.93 **
birth+10	6.6E-10	32.92 **
birth+15	6.6E-10	32.77 **
birth+20	6.2E-10	31.08 **
-260	5.9E-14	0.00
-52	1.6E-13	0.01
conception	3.0E-11	1.49
lactation	6.1E-10	30.48 **

NA-22 I 3.2E-09		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	7.0E-14	0.00
-26	3.3E-13	0.01
conception	4.9E-13	0.02
+5	5.3E-13	0.02
+10	5.7E-13	0.02
+15	6.2E-13	0.02
+25	2.7E-12	0.08
+35	2.6E-10	8.20 *
birth	1.1E-09	35.44 **
birth+1	1.4E-09	42.73 **
birth+5	1.4E-09	42.73 **
birth+10	1.4E-09	42.71 **
birth+15	1.4E-09	42.51 **
birth+20	1.3E-09	40.32 **
-260	1.2E-13	0.00
-52	3.4E-13	0.01
conception	6.2E-11	1.93
lactation	1.3E-09	39.55 **

NA-24 F 5.3E-10		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	0.0E+00	0.00
-26	0.0E+00	0.00
conception	0.0E+00	0.00
+5	0.0E+00	0.00
+10	0.0E+00	0.00
+15	0.0E+00	0.00
+25	0.0E+00	0.00
+35	0.0E+00	0.00
birth	4.7E-13	0.09
birth+1	3.0E-12	0.56
birth+5	3.0E-12	0.56
birth+10	3.0E-12	0.56
birth+15	3.0E-12	0.56
birth+20	3.0E-12	0.56
-260	0.0E+00	0.00
-52	0.0E+00	0.00
conception	1.7E-15	0.00
lactation	2.9E-12	0.55

NA-24 I 4.3E-10		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	0.0E+00	0.00
-26	0.0E+00	0.00
conception	0.0E+00	0.00
+5	0.0E+00	0.00
+10	0.0E+00	0.00
+15	0.0E+00	0.00
+25	0.0E+00	0.00
+35	0.0E+00	0.00
birth	9.7E-13	0.23
birth+1	6.0E-12	1.40
birth+5	6.0E-12	1.40
birth+10	6.0E-12	1.40
birth+15	6.0E-12	1.40
birth+20	6.0E-12	1.40
-260	0.0E+00	0.00
-52	0.0E+00	0.00
conception	3.6E-15	0.00
lactation	6.0E-12	1.39

MG-28 F 1.1E-09		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	0.0E+00	0.00
-26	0.0E+00	0.00
conception	0.0E+00	0.00
+5	0.0E+00	0.00
+10	0.0E+00	0.00
+15	0.0E+00	0.00
+25	0.0E+00	0.00
+35	2.9E-20	0.00
birth	6.5E-12	0.60
birth+1	1.9E-10	16.97 **
birth+5	1.9E-10	16.97 **
birth+10	1.9E-10	16.97 **
birth+15	1.9E-10	16.97 **
birth+20	1.9E-10	16.97 **
-260	0.0E+00	0.00
-52	0.0E+00	0.00
conception	1.2E-14	0.00
lactation	1.8E-10	16.81 **

MG-28 M 1.7E-09		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	0.0E+00	0.00
-26	0.0E+00	0.00
conception	0.0E+00	0.00
+5	0.0E+00	0.00
+10	0.0E+00	0.00
+15	0.0E+00	0.00
+25	0.0E+00	0.00
+35	1.6E-20	0.00
birth	4.6E-12	0.27
birth+1	1.0E-10	6.14 *
birth+5	1.0E-10	6.14 *
birth+10	1.0E-10	6.14 *
birth+15	1.0E-10	6.14 *
birth+20	1.0E-10	6.14 *
-260	0.0E+00	0.00
-52	0.0E+00	0.00
conception	8.3E-15	0.00
lactation	1.0E-10	6.09 *

MG-28 I 2.2E-09		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	0.0E+00	0.00
-26	0.0E+00	0.00
conception	0.0E+00	0.00
+5	0.0E+00	0.00
+10	0.0E+00	0.00
+15	0.0E+00	0.00
+25	0.0E+00	0.00
+35	3.7E-20	0.00
birth	1.0E-11	0.46
birth+1	2.3E-10	10.48 *
birth+5	2.3E-10	10.48 *
birth+10	2.3E-10	10.48 *
birth+15	2.3E-10	10.48 *
birth+20	2.3E-10	10.48 *
-260	0.0E+00	0.00
-52	0.0E+00	0.00
conception	1.7E-14	0.00
lactation	2.3E-10	10.38 *



P-32 F 1.1E-09		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	0.0E+00	0.00
-26	0.0E+00	0.00
conception	9.8E-18	0.00
+5	5.5E-17	0.00
+10	3.1E-16	0.00
+15	2.0E-15	0.00
+25	1.6E-13	0.01
+35	4.4E-11	3.99
birth	3.9E-10	35.88 **
birth+1	9.0E-10	82.23 **
birth+5	9.0E-10	82.23 **
birth+10	9.0E-10	82.23 **
birth+15	9.0E-10	82.18 **
birth+20	8.9E-10	81.33 **
-260	0.0E+00	0.00
-52	0.0E+00	0.00
conception	1.3E-11	1.17
lactation	8.8E-10	79.61 **

P-32 M 2.9E-09		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	0.0E+00	0.00
-26	0.0E+00	0.00
conception	1.4E-17	0.00
+5	8.2E-17	0.00
+10	5.1E-16	0.00
+15	3.3E-15	0.00
+25	2.2E-13	0.01
+35	4.1E-11	1.40
birth	3.3E-10	11.38 *
birth+1	7.4E-10	25.44 **
birth+5	7.4E-10	25.43 **
birth+10	7.4E-10	25.43 **
birth+15	7.4E-10	25.41 **
birth+20	7.3E-10	25.09 **
-260	0.0E+00	0.00
-52	0.0E+00	0.00
conception	1.1E-11	0.39
lactation	7.1E-10	24.56 **

P-32 I 2.4E-09		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	0.0E+00	0.00
-26	0.0E+00	0.00
conception	1.8E-17	0.00
+5	1.0E-16	0.00
+10	5.7E-16	0.00
+15	3.6E-15	0.00
+25	2.9E-13	0.01
+35	8.0E-11	3.34
birth	7.2E-10	30.19 **
birth+1	1.7E-09	69.50 **
birth+5	1.7E-09	69.50 **
birth+10	1.7E-09	69.50 **
birth+15	1.7E-09	69.35 **
birth+20	1.6E-09	68.55 **
-260	0.0E+00	0.00
-52	0.0E+00	0.00
conception	2.3E-11	0.98
lactation	1.6E-09	67.50 **

P-33 F 1.4E-10		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	0.0E+00	0.00
-26	2.8E-18	0.00
conception	4.5E-16	0.00
+5	1.2E-15	0.00
+10	3.3E-15	0.00
+15	9.4E-15	0.01
+25	1.5E-13	0.11
+35	8.6E-12	6.16 *
birth	4.5E-11	32.50 **
birth+1	9.1E-11	65.26 **
birth+5	9.1E-11	65.26 **
birth+10	9.1E-11	65.22 **
birth+15	9.1E-11	64.99 **
birth+20	8.8E-11	63.18 **
-260	8.9E-18	0.00
-52	4.5E-17	0.00
conception	2.1E-12	1.49
lactation	8.7E-11	62.37 **

P-33 M 1.3E-09		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	0.0E+00	0.00
-26	3.0E-18	0.00
conception	6.2E-16	0.00
+5	1.8E-15	0.00
+10	5.1E-15	0.00
+15	1.6E-14	0.00
+25	2.2E-13	0.02
+35	8.2E-12	0.63
birth	3.9E-11	2.98
birth+1	7.5E-11	5.80 *
birth+5	7.5E-11	5.80 *
birth+10	7.5E-11	5.79 *
birth+15	7.5E-11	5.76 *
birth+20	7.2E-11	5.56 *
-260	1.1E-17	0.00
-52	5.7E-17	0.00
conception	1.9E-12	0.15
lactation	7.2E-11	5.51 *

P-33 I 2.4E-10		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	0.0E+00	0.00
-26	5.1E-18	0.00
conception	8.3E-16	0.00
+5	2.2E-15	0.00
+10	6.0E-15	0.00
+15	1.7E-14	0.01
+25	2.8E-13	0.12
+35	1.6E-11	6.57 *
birth	8.3E-11	34.77 **
birth+1	1.7E-10	70.01 **
birth+5	1.7E-10	70.01 **
birth+10	1.7E-10	70.01 **
birth+15	1.7E-10	69.74 **
birth+20	1.6E-10	67.82 **
-260	1.6E-17	0.00
-52	8.2E-17	0.00
conception	3.8E-12	1.59
lactation	1.6E-10	67.17 **

S-35 (organic) S 7.7E-10  
 Exposure scenario  
 (weeks)\* e(milk) % of e  
 -130 1.7E-19 0.00  
 -26 9.1E-13 0.12  
 conception 9.6E-12 1.25  
 +5 1.5E-11 1.96  
 +10 2.4E-11 3.08  
 +15 3.7E-11 4.84  
 +25 9.2E-11 11.92 \*  
 +35 2.3E-10 29.37 \*\*  
 birth 3.0E-10 38.46 \*\*  
 birth+1 3.1E-10 39.63 \*\*  
 birth+5 2.9E-10 37.62 \*\*  
 birth+10 2.6E-10 33.83 \*\*  
 birth+15 2.1E-10 27.67 \*\*  
 birth+20 1.4E-10 18.22 \*\*  
 -260 4.1E-13 0.05  
 -52 2.0E-12 0.26  
 conception 8.4E-11 10.87 \*  
 lactation 2.1E-10 27.32 \*\*

S-35 (organic) I 7.7E-10  
 Exposure scenario  
 (weeks)\* e(milk) % of e  
 -130 2.3E-19 0.00  
 -26 1.0E-12 0.13  
 conception 1.1E-11 1.41  
 +5 1.7E-11 2.21  
 +10 2.7E-11 3.47  
 +15 4.2E-11 5.45 \*  
 +25 1.0E-10 13.42 \*  
 +35 2.5E-10 33.06 \*\*  
 birth 3.3E-10 43.29 \*\*  
 birth+1 3.4E-10 44.59 \*\*  
 birth+5 3.3E-10 42.33 \*\*  
 birth+10 2.9E-10 38.06 \*\*  
 birth+15 2.4E-10 31.13 \*\*  
 birth+20 1.6E-10 20.49 \*\*  
 -260 4.6E-13 0.06  
 -52 2.3E-12 0.30  
 conception 9.4E-11 12.24 \*  
 lactation 2.4E-10 30.73 \*\*

K-42 F 2.0E-10  
 Exposure scenario  
 (weeks)\* e(milk) % of e  
 -130 0.0E+00 0.00  
 -26 0.0E+00 0.00  
 conception 0.0E+00 0.00  
 +5 0.0E+00 0.00  
 +10 0.0E+00 0.00  
 +15 0.0E+00 0.00  
 +25 0.0E+00 0.00  
 +35 0.0E+00 0.00  
 birth 5.4E-13 0.27  
 birth+1 7.1E-12 3.57  
 birth+5 7.1E-12 3.57  
 birth+10 7.1E-12 3.57  
 birth+15 7.1E-12 3.57  
 birth+20 7.1E-12 3.57  
 -260 0.0E+00 0.00  
 -52 0.0E+00 0.00  
 conception 1.5E-15 0.00  
 lactation 7.1E-12 3.53

K-42 I 4.3E-10  
 Exposure scenario  
 (weeks)\* e(milk) % of e  
 -130 0.0E+00 0.00  
 -26 0.0E+00 0.00  
 conception 0.0E+00 0.00  
 +5 0.0E+00 0.00  
 +10 0.0E+00 0.00  
 +15 0.0E+00 0.00  
 +25 0.0E+00 0.00  
 +35 0.0E+00 0.00  
 birth 1.1E-12 0.26  
 birth+1 1.4E-11 3.36  
 birth+5 1.4E-11 3.36  
 birth+10 1.4E-11 3.36  
 birth+15 1.4E-11 3.36  
 birth+20 1.4E-11 3.36  
 -260 0.0E+00 0.00  
 -52 0.0E+00 0.00  
 conception 3.1E-15 0.00  
 lactation 1.4E-11 3.32

K-43 F 2.6E-10  
 Exposure scenario  
 (weeks)\* e(milk) % of e  
 -130 0.0E+00 0.00  
 -26 0.0E+00 0.00  
 conception 0.0E+00 0.00  
 +5 0.0E+00 0.00  
 +10 0.0E+00 0.00  
 +15 0.0E+00 0.00  
 +25 0.0E+00 0.00  
 +35 9.5E-20 0.00  
 birth 1.0E-12 0.39  
 birth+1 6.2E-12 2.37  
 birth+5 6.2E-12 2.37  
 birth+10 6.2E-12 2.37  
 birth+15 6.2E-12 2.37  
 birth+20 6.2E-12 2.37  
 -260 0.0E+00 0.00  
 -52 0.0E+00 0.00  
 conception 5.1E-15 0.00  
 lactation 6.1E-12 2.35

K-43 I 2.5E-10  
 Exposure scenario  
 (weeks)\* e(milk) % of e  
 -130 0.0E+00 0.00  
 -26 0.0E+00 0.00  
 conception 0.0E+00 0.00  
 +5 0.0E+00 0.00  
 +10 0.0E+00 0.00  
 +15 0.0E+00 0.00  
 +25 0.0E+00 0.00  
 +35 2.1E-19 0.00  
 birth 2.1E-12 0.85  
 birth+1 1.3E-11 5.05 \*  
 birth+5 1.3E-11 5.05 \*  
 birth+10 1.3E-11 5.05 \*  
 birth+15 1.3E-11 5.05 \*  
 birth+20 1.3E-11 5.05 \*  
 -260 0.0E+00 0.00  
 -52 0.0E+00 0.00  
 conception 1.1E-14 0.00  
 lactation 1.3E-11 5.00 \*

CA-45 M 2.3E-09		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	6.3E-14	0.00
-26	3.8E-12	0.16
conception	1.6E-11	0.69
+5	2.2E-11	0.97
+10	3.2E-11	1.37
+15	4.6E-11	2.01
+25	1.0E-10	4.41
+35	3.6E-10	15.81 *
birth	1.1E-09	48.54 **
birth+1	9.7E-10	42.22 **
birth+5	9.6E-10	41.85 **
birth+10	9.5E-10	41.20 **
birth+15	9.2E-10	40.19 **
birth+20	8.8E-10	38.45 **
-260	1.2E-12	0.05
-52	5.2E-12	0.23
conception	1.3E-10	5.44 *
lactation	9.2E-10	39.91 **

CA-45 I 7.6E-10		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	9.9E-14	0.01
-26	4.2E-12	0.55
conception	1.5E-11	2.00
+5	2.3E-11	2.99
+10	3.3E-11	4.39
+15	5.2E-11	6.85 *
+25	1.3E-10	16.70 *
+35	5.8E-10	76.44 **
birth	2.2E-09	293.82 ***
birth+1	1.7E-09	227.24 ***
birth+5	1.7E-09	226.66 ***
birth+10	1.7E-09	225.64 ***
birth+15	1.7E-09	224.20 ***
birth+20	1.7E-09	221.30 ***
-260	1.3E-12	0.17
-52	5.5E-12	0.72
conception	1.9E-10	24.56 **
lactation	1.7E-09	223.91 ***

CA-47 M 2.1E-09		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	0.0E+00	0.00
-26	0.0E+00	0.00
conception	0.0E+00	0.00
+5	0.0E+00	0.00
+10	0.0E+00	0.00
+15	0.0E+00	0.00
+25	3.0E-17	0.00
+35	7.9E-12	0.37
birth	5.6E-10	26.90 **
birth+1	7.4E-10	35.33 **
birth+5	7.4E-10	35.33 **
birth+10	7.4E-10	35.33 **
birth+15	7.4E-10	35.33 **
birth+20	7.4E-10	35.32 **
-260	0.0E+00	0.00
-52	0.0E+00	0.00
conception	9.9E-12	0.47
lactation	7.4E-10	35.37 **

CA-47 I 1.6E-09		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	0.0E+00	0.00
-26	0.0E+00	0.00
conception	0.0E+00	0.00
+5	0.0E+00	0.00
+10	0.0E+00	0.00
+15	0.0E+00	0.00
+25	3.5E-17	0.00
+35	1.5E-11	0.94
birth	1.2E-09	77.44 **
birth+1	1.5E-09	92.54 **
birth+5	1.5E-09	92.54 **
birth+10	1.5E-09	92.54 **
birth+15	1.5E-09	92.54 **
birth+20	1.5E-09	92.53 **
-260	0.0E+00	0.00
-52	0.0E+00	0.00
conception	2.1E-11	1.32
lactation	1.5E-09	93.01 **

FE-55 F 9.2E-10		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	3.8E-12	0.42
-26	8.3E-12	0.90
conception	1.1E-11	1.16
+5	1.1E-11	1.22
+10	1.2E-11	1.29
+15	1.3E-11	1.40
+25	1.6E-11	1.73
+35	1.9E-11	2.06
birth	2.2E-11	2.37
birth+1	3.4E-11	3.66
birth+5	3.1E-11	3.40
birth+10	2.8E-11	3.06
birth+15	2.5E-11	2.68
birth+20	2.1E-11	2.28
-260	4.5E-12	0.49
-52	8.5E-12	0.92
conception	1.4E-11	1.58
lactation	2.6E-11	2.80

FE-55 M 3.3E-10		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	1.3E-12	0.40
-26	2.9E-12	0.88
conception	3.7E-12	1.14
+5	3.9E-12	1.19
+10	4.1E-12	1.26
+15	4.4E-12	1.32
+25	4.9E-12	1.48
+35	5.5E-12	1.67
birth	6.2E-12	1.87
birth+1	9.1E-12	2.77
birth+5	8.4E-12	2.53
birth+10	7.3E-12	2.22
birth+15	6.2E-12	1.88
birth+20	5.0E-12	1.53
-260	1.6E-12	0.48
-52	3.0E-12	0.90
conception	4.6E-12	1.40
lactation	6.6E-12	1.99

FE-55 I 3.3E-10		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	1.3E-12	0.39
-26	2.8E-12	0.84
conception	3.6E-12	1.09
+5	3.8E-12	1.14
+10	4.0E-12	1.21
+15	5.9E-12	1.80
+25	1.4E-11	4.18
+35	2.0E-11	6.15 *
birth	2.5E-11	7.42 *
birth+1	2.1E-11	6.42 *
birth+5	2.0E-11	5.96 *
birth+10	1.8E-11	5.35 *
birth+15	1.5E-11	4.69
birth+20	1.3E-11	3.99
-260	1.5E-12	0.46
-52	2.8E-12	0.86
conception	1.0E-11	3.11
lactation	1.6E-11	4.99

FE-59 F 3.0E-09		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	0.0E+00	0.00
-26	1.9E-14	0.00
conception	3.7E-13	0.01
+5	6.5E-13	0.02
+10	1.2E-12	0.04
+15	2.1E-12	0.07
+25	7.4E-12	0.25
+35	2.5E-11	0.84
birth	4.5E-11	1.51
birth+1	1.2E-10	3.88
birth+5	1.2E-10	3.84
birth+10	1.1E-10	3.76
birth+15	1.1E-10	3.61
birth+20	1.0E-10	3.35
-260	1.2E-14	0.00
-52	6.2E-14	0.00
conception	7.8E-12	0.26
lactation	1.1E-10	3.56

FE-59 M 3.2E-09		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	0.0E+00	0.00
-26	6.6E-15	0.00
conception	1.3E-13	0.00
+5	2.3E-13	0.01
+10	4.0E-13	0.01
+15	7.2E-13	0.02
+25	2.3E-12	0.07
+35	7.4E-12	0.23
birth	1.3E-11	0.39
birth+1	2.9E-11	0.89
birth+5	2.8E-11	0.88
birth+10	2.7E-11	0.86
birth+15	2.6E-11	0.81
birth+20	2.4E-11	0.74
-260	4.3E-15	0.00
-52	2.2E-14	0.00
conception	2.3E-12	0.07
lactation	2.6E-11	0.80

FE-59 I 1.8E-09		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	0.0E+00	0.00
-26	6.3E-15	0.00
conception	1.2E-13	0.01
+5	2.2E-13	0.01
+10	3.9E-13	0.02
+15	9.8E-13	0.05
+25	6.4E-12	0.36
+35	2.7E-11	1.50
birth	5.2E-11	2.87
birth+1	7.3E-11	4.05
birth+5	7.2E-11	4.01
birth+10	7.1E-11	3.93
birth+15	6.8E-11	3.77
birth+20	6.3E-11	3.50
-260	4.1E-15	0.00
-52	2.1E-14	0.00
conception	7.4E-12	0.41
lactation	6.8E-11	3.76

CO-60 M 7.1E-09		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	7.8E-12	0.11
-26	4.2E-11	0.59
conception	9.9E-11	1.39
+5	1.2E-10	1.68
+10	1.5E-10	2.05
+15	1.8E-10	2.52
+25	2.8E-10	3.94
+35	5.1E-10	7.22 *
birth	1.0E-09	14.18 *
birth+1	1.8E-09	25.05 **
birth+5	1.6E-09	23.04 **
birth+10	1.6E-09	22.22 **
birth+15	1.5E-09	21.11 **
birth+20	1.4E-09	19.61 **
-260	1.6E-11	0.22
-52	4.8E-11	0.68
conception	2.6E-10	3.69
lactation	1.4E-09	20.35 **

CO-60 S 1.7E-08		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	5.5E-12	0.03
-26	1.3E-11	0.08
conception	1.8E-11	0.11
+5	2.0E-11	0.12
+10	2.2E-11	0.13
+15	2.5E-11	0.15
+25	3.7E-11	0.22
+35	7.7E-11	0.46
birth	2.2E-10	1.31
birth+1	4.6E-10	2.70
birth+5	4.3E-10	2.53
birth+10	4.3E-10	2.52
birth+15	4.2E-10	2.49
birth+20	4.2E-10	2.45
-260	6.8E-12	0.04
-52	1.4E-11	0.08
conception	3.9E-11	0.23
lactation	4.0E-10	2.36



CO-60 I ( $f_1 = 0.1$ ) 3.4E-09  
 Exposure scenario  
 (weeks)\* e(milk) % of e  
 -130 7.0E-12 0.21  
 -26 1.8E-11 0.53  
 conception 2.9E-11 0.86  
 +5 3.4E-11 1.00  
 +10 4.1E-11 1.20  
 +15 5.1E-11 1.50  
 +25 8.8E-11 2.58  
 +35 2.2E-10 6.37 \*  
 birth 8.6E-10 25.40 \*\*  
 birth+1 2.1E-09 63.20 \*\*  
 birth+5 2.1E-09 63.20 \*\*  
 birth+10 2.0E-09 60.08 \*\*  
 birth+15 2.0E-09 60.08 \*\*  
 birth+20 2.0E-09 60.08 \*\*  
 -260 9.0E-12 0.26  
 -52 1.9E-11 0.56  
 conception 9.8E-11 2.88  
 lactation 2.0E-09 57.73 \*\*

CO-60 I ( $f_1 = 0.05$ ) 2.5E-09  
 Exposure scenario  
 (weeks)\* e(milk) % of e  
 -130 3.5E-12 0.14  
 -26 9.0E-12 0.36  
 conception 1.5E-11 0.58  
 +5 1.7E-11 0.68  
 +10 2.0E-11 0.82  
 +15 2.6E-11 1.02  
 +25 4.4E-11 1.76  
 +35 1.1E-10 4.33  
 birth 4.3E-10 17.30 \*\*  
 birth+1 1.1E-09 45.36 \*\*  
 birth+5 1.1E-09 45.36 \*\*  
 birth+10 1.1E-09 43.26 \*\*  
 birth+15 1.1E-09 43.26 \*\*  
 birth+20 1.1E-09 43.26 \*\*  
 -260 4.5E-12 0.18  
 -52 9.6E-12 0.38  
 conception 4.9E-11 1.96  
 lactation 9.9E-10 39.55 \*\*

ZN-65 S 2.8E-09  
 Exposure scenario  
 (weeks)\* e(milk) % of e  
 -130 1.1E-12 0.04  
 -26 2.8E-11 1.00  
 conception 6.3E-11 2.26  
 +5 7.4E-11 2.64  
 +10 8.7E-11 3.10  
 +15 1.0E-10 3.64  
 +25 1.5E-10 5.30 \*  
 +35 3.1E-10 10.97 \*  
 birth 4.6E-10 16.34 \*  
 birth+1 4.8E-10 17.22 \*\*  
 birth+5 4.6E-10 16.34 \*  
 birth+10 4.2E-10 15.02 \*  
 birth+15 3.7E-10 13.11 \*  
 birth+20 2.8E-10 9.86 \*  
 -260 7.8E-12 0.28  
 -52 3.1E-11 1.12  
 conception 1.5E-10 5.28 \*  
 lactation 3.5E-10 12.68 \*

ZN-65 I 3.9E-09		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	2.1E-12	0.05
-26	5.8E-11	1.49
conception	1.3E-10	3.45
+5	1.6E-10	4.05
+10	1.9E-10	4.76
+15	2.2E-10	5.61 *
+25	3.2E-10	8.15 *
+35	6.7E-10	17.26 **
birth	1.0E-09	26.39 **
birth+1	1.1E-09	27.92 **
birth+5	1.0E-09	26.59 **
birth+10	9.6E-10	24.55 **
birth+15	8.4E-10	21.61 **
birth+20	6.4E-10	16.50 *
-260	1.6E-11	0.41
-52	6.5E-11	1.68
conception	3.2E-10	8.21 *
lactation	8.1E-10	20.82 **

SR-90 F 3.0E-08		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	8.6E-11	0.29
-26	1.8E-10	0.59
conception	3.4E-10	1.15
+5	4.2E-10	1.39
+10	5.1E-10	1.70
+15	6.4E-10	2.14
+25	1.1E-09	3.51
+35	3.3E-09	10.93 *
birth	1.1E-08	37.74 **
birth+1	1.8E-08	58.56 **
birth+5	1.7E-08	58.17 **
birth+10	1.7E-08	57.58 **
birth+15	1.7E-08	56.75 **
birth+20	1.6E-08	54.98 **
-260	1.1E-10	0.35
-52	2.0E-10	0.65
conception	1.3E-09	4.31
lactation	1.7E-08	55.46 **

SR-90 S 7.7E-08		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	1.4E-11	0.02
-26	2.7E-11	0.03
conception	3.4E-11	0.04
+5	3.6E-11	0.05
+10	3.9E-11	0.05
+15	4.4E-11	0.06
+25	6.0E-11	0.08
+35	1.2E-10	0.16
birth	3.0E-10	0.39
birth+1	2.8E-10	0.37
birth+5	2.8E-10	0.36
birth+10	2.7E-10	0.35
birth+15	2.5E-10	0.33
birth+20	2.4E-10	0.31
-260	1.6E-11	0.02
-52	2.7E-11	0.04
conception	6.3E-11	0.08
lactation	2.5E-10	0.33

SR-90 I ( $f_1 = 0.3$ ) 2.8E-08

Exposure scenario

(weeks)*	e(milk)	% of e
-130	7.6E-11	0.27
-26	1.6E-10	0.56
conception	3.1E-10	1.09
+5	4.1E-10	1.47
+10	5.5E-10	1.96
+15	7.8E-10	2.78
+25	1.6E-09	5.62 *
+35	4.9E-09	17.67 **
birth	1.7E-08	61.46 **
birth+1	1.6E-08	55.74 **
birth+5	1.6E-08	55.37 **
birth+10	1.5E-08	54.81 **
birth+15	1.5E-08	54.02 **
birth+20	1.5E-08	52.33 **
-260	9.4E-11	0.33
-52	1.7E-10	0.62
conception	1.8E-09	6.55 *
lactation	1.5E-08	53.54 **

SR-90 I (strontium titanate,  $f_1 = 0.01$ ) 2.7E-09

Exposure scenario

(weeks)*	e(milk)	% of e
-130	2.5E-12	0.09
-26	5.2E-12	0.19
conception	1.0E-11	0.38
+5	1.3E-11	0.50
+10	1.8E-11	0.66
+15	2.5E-11	0.92
+25	5.2E-11	1.93
+35	1.7E-10	6.13 *
birth	5.8E-10	21.38 **
birth+1	5.2E-10	19.28 **
birth+5	5.2E-10	19.15 **
birth+10	5.1E-10	18.96 **
birth+15	5.0E-10	18.69 **
birth+20	4.9E-10	18.11 **
-260	3.1E-12	0.12
-52	5.8E-12	0.21
conception	6.1E-11	2.25
lactation	5.0E-10	18.46 **

TC-99M F 2.0E-11

Exposure scenario

(weeks)*	e(milk)	% of e
-130	0.0E+00	0.00
-26	0.0E+00	0.00
conception	0.0E+00	0.00
+5	0.0E+00	0.00
+10	0.0E+00	0.00
+15	0.0E+00	0.00
+25	0.0E+00	0.00
+35	0.0E+00	0.00
birth	2.0E-11	100.00 **
birth+1	2.0E-11	100.00 **
birth+5	2.0E-11	100.00 **
birth+10	2.0E-11	100.00 **
birth+15	2.0E-11	100.00 **
birth+20	2.0E-11	100.00 **
-260	0.0E+00	0.00
-52	0.0E+00	0.00
conception	0.0E+00	0.00
lactation	2.0E-11	100.00 **

TC-99M M 2.9E-11		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	0.0E+00	0.00
-26	0.0E+00	0.00
conception	0.0E+00	0.00
+5	0.0E+00	0.00
+10	0.0E+00	0.00
+15	0.0E+00	0.00
+25	0.0E+00	0.00
+35	0.0E+00	0.00
birth	2.0E-11	68.97 **
birth+1	2.0E-11	68.97 **
birth+5	2.0E-11	68.97 **
birth+10	2.0E-11	68.97 **
birth+15	2.0E-11	68.97 **
birth+20	2.0E-11	68.97 **
-260	0.0E+00	0.00
-52	0.0E+00	0.00
conception	0.0E+00	0.00
lactation	2.0E-11	68.97 **

TC-99M I 2.2E-11		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	0.0E+00	0.00
-26	0.0E+00	0.00
conception	0.0E+00	0.00
+5	0.0E+00	0.00
+10	0.0E+00	0.00
+15	0.0E+00	0.00
+25	0.0E+00	0.00
+35	0.0E+00	0.00
birth	2.0E-11	90.91 **
birth+1	2.0E-11	90.91 **
birth+5	2.0E-11	90.91 **
birth+10	2.0E-11	90.91 **
birth+15	2.0E-11	90.91 **
birth+20	2.0E-11	90.91 **
-260	0.0E+00	0.00
-52	0.0E+00	0.00
conception	0.0E+00	0.00
lactation	2.0E-11	90.91 **

RU-106 Vapour: Ru tetroxide 1.8E-08		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	2.6E-12	0.01
-26	1.7E-11	0.09
conception	2.9E-11	0.16
+5	3.4E-11	0.19
+10	4.2E-11	0.23
+15	5.6E-11	0.31
+25	1.4E-10	0.77
+35	6.0E-10	3.34
birth	1.5E-09	8.35 *
birth+1	2.1E-09	11.72 *
birth+5	2.1E-09	11.60 *
birth+10	2.0E-09	11.35 *
birth+15	2.0E-09	10.86 *
birth+20	1.8E-09	9.77 *
-260	5.7E-12	0.03
-52	1.8E-11	0.10
conception	1.9E-10	1.05
lactation	1.9E-09	10.35 *

RU-106 F 9.8E-09		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	1.4E-12	0.01
-26	9.2E-12	0.09
conception	1.6E-11	0.16
+5	1.9E-11	0.19
+10	2.3E-11	0.24
+15	3.1E-11	0.31
+25	7.6E-11	0.77
+35	3.3E-10	3.37
birth	8.2E-10	8.42 *
birth+1	1.2E-09	11.82 *
birth+5	1.1E-09	11.70 *
birth+10	1.1E-09	11.45 *
birth+15	1.1E-09	10.95 *
birth+20	9.7E-10	9.85 *
-260	3.1E-12	0.03
-52	9.7E-12	0.10
conception	1.0E-10	1.06
lactation	1.0E-09	10.44 *

RU-106 M 1.7E-08		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	4.2E-13	0.00
-26	5.0E-12	0.03
conception	1.4E-11	0.08
+5	1.7E-11	0.10
+10	2.2E-11	0.13
+15	2.9E-11	0.17
+25	5.3E-11	0.31
+35	1.2E-10	0.73
birth	2.1E-10	1.26
birth+1	2.7E-10	1.57
birth+5	2.6E-10	1.52
birth+10	2.4E-10	1.43
birth+15	2.2E-10	1.30
birth+20	1.8E-10	1.08
-260	1.6E-12	0.01
-52	6.0E-12	0.04
conception	5.2E-11	0.30
lactation	2.1E-10	1.26

RU-106 S 3.5E-08		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	2.4E-13	0.00
-26	1.6E-12	0.00
conception	2.8E-12	0.01
+5	3.1E-12	0.01
+10	3.7E-12	0.01
+15	4.6E-12	0.01
+25	9.0E-12	0.03
+35	3.1E-11	0.09
birth	6.9E-11	0.20
birth+1	9.2E-11	0.26
birth+5	9.1E-11	0.26
birth+10	8.8E-11	0.25
birth+15	8.3E-11	0.24
birth+20	7.4E-11	0.21
-260	5.5E-13	0.00
-52	1.7E-12	0.00
conception	1.1E-11	0.03
lactation	8.0E-11	0.23

RU-106 I 7.0E-09		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	2.4E-13	0.00
-26	1.6E-12	0.02
conception	2.8E-12	0.04
+5	3.2E-12	0.05
+10	4.0E-12	0.06
+15	5.4E-12	0.08
+25	1.3E-11	0.19
+35	5.8E-11	0.82
birth	1.5E-10	2.08
birth+1	2.0E-10	2.87
birth+5	2.0E-10	2.84
birth+10	1.9E-10	2.78
birth+15	1.9E-10	2.66
birth+20	1.7E-10	2.39
-260	5.5E-13	0.01
-52	1.7E-12	0.02
conception	1.8E-11	0.26
lactation	1.8E-10	2.53

CS-137 F 6.7E-09		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	9.8E-15	0.00
-26	8.7E-12	0.13
conception	4.8E-11	0.72
+5	6.8E-11	1.02
+10	1.0E-10	1.55
+15	1.7E-10	2.49
+25	4.4E-10	6.60
+35	1.2E-09	17.49
birth	1.7E-09	24.97
birth+1	1.8E-09	27.31
birth+5	1.7E-09	25.57
birth+10	1.5E-09	22.65
birth+15	1.2E-09	18.47
birth+20	8.6E-10	12.82
-260	2.8E-12	0.04
-52	1.4E-11	0.20
conception	4.2E-10	6.21
lactation	1.3E-09	18.79

CS-137 I 1.3E-08		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	2.0E-14	0.00
-26	1.8E-11	0.14
conception	1.0E-10	0.77
+5	1.4E-10	1.09
+10	2.2E-10	1.66
+15	3.5E-10	2.66
+25	9.2E-10	7.06
+35	2.4E-09	18.71
birth	3.5E-09	26.73
birth+1	3.8E-09	29.22
birth+5	3.6E-09	27.34
birth+10	3.1E-09	24.23
birth+15	2.6E-09	19.76
birth+20	1.8E-09	13.71
-260	5.9E-12	0.05
-52	2.8E-11	0.22
conception	8.6E-10	6.65
lactation	2.6E-09	20.10

I-125 Vapour: elemental iodine vapour 1.4E-08

Exposure scenario

(weeks)*	e(milk)	% of e
-130	0.0E+00	0.00
-26	4.1E-13	0.00
conception	8.0E-12	0.06
+5	2.4E-11	0.17
+10	4.8E-11	0.34
+15	9.1E-11	0.65
+25	3.5E-10	2.53
+35	1.2E-09	8.40 *
birth	1.6E-09	11.48 *
birth+1	1.6E-08	112.91 ***
birth+5	1.6E-08	112.69 ***
birth+10	1.6E-08	112.28 ***
birth+15	1.6E-08	111.50 ***
birth+20	1.5E-08	110.28 ***
-260	2.7E-13	0.00
-52	1.4E-12	0.01
conception	3.6E-10	2.54
lactation	1.5E-08	110.20 ***

I-125 Vapour: methyl iodide 1.1E-08

Exposure scenario

(weeks)*	e(milk)	% of e
-130	0.0E+00	0.00
-26	3.2E-13	0.00
conception	6.3E-12	0.06
+5	1.9E-11	0.17
+10	3.7E-11	0.34
+15	7.1E-11	0.65
+25	2.8E-10	2.51
+35	9.2E-10	8.33 *
birth	1.2E-09	11.29 *
birth+1	1.2E-08	111.99 ***
birth+5	1.2E-08	111.75 ***
birth+10	1.2E-08	111.33 ***
birth+15	1.2E-08	110.57 ***
birth+20	1.2E-08	109.39 ***
-260	2.1E-13	0.00
-52	1.1E-12	0.01
conception	2.8E-10	2.52
lactation	1.2E-08	109.29 ***

I-125 F 7.3E-09

Exposure scenario

(weeks)*	e(milk)	% of e
-130	0.0E+00	0.00
-26	2.2E-13	0.00
conception	4.3E-12	0.06
+5	1.3E-11	0.18
+10	2.5E-11	0.35
+15	4.9E-11	0.67
+25	1.9E-10	2.58
+35	6.3E-10	8.56 *
birth	8.5E-10	11.71 *
birth+1	8.4E-09	115.04 ***
birth+5	8.4E-09	114.83 ***
birth+10	8.4E-09	114.40 ***
birth+15	8.3E-09	113.62 ***
birth+20	8.2E-09	112.41 ***
-260	1.5E-13	0.00
-52	7.2E-13	0.01
conception	1.9E-10	2.59
lactation	8.2E-09	112.33 ***

I-125 I 1.5E-08  
 Exposure scenario  
 (weeks)\* e(milk) % of e  
 -130 0.0E+00 0.00  
 -26 4.6E-13 0.00  
 conception 8.9E-12 0.06  
 +5 2.7E-11 0.18  
 +10 5.3E-11 0.35  
 +15 1.0E-10 0.67  
 +25 3.9E-10 2.61  
 +35 1.3E-09 8.66 \*  
 birth 1.8E-09 11.88 \*  
 birth+1 1.7E-08 116.41 \*\*\*  
 birth+5 1.7E-08 116.20 \*\*\*  
 birth+10 1.7E-08 115.75 \*\*\*  
 birth+15 1.7E-08 114.95 \*\*\*  
 birth+20 1.7E-08 113.71 \*\*\*  
 -260 3.0E-13 0.00  
 -52 1.5E-12 0.01  
 conception 3.9E-10 2.62  
 lactation 1.7E-08 113.64 \*\*\*

I-131 Vapour: elemental iodine vapour 2.0E-08  
 Exposure scenario  
 (weeks)\* e(milk) % of e  
 -130 0.0E+00 0.00  
 -26 0.0E+00 0.00  
 conception 0.0E+00 0.00  
 +5 0.0E+00 0.00  
 +10 0.0E+00 0.00  
 +15 3.2E-16 0.00  
 +25 2.3E-13 0.00  
 +35 1.3E-10 0.63  
 birth 1.5E-09 7.69  
 birth+1 5.1E-08 254.52  
 birth+5 5.1E-08 254.52  
 birth+10 5.1E-08 254.52  
 birth+15 5.1E-08 254.52  
 birth+20 5.1E-08 254.43  
 -260 0.0E+00 0.00  
 -52 0.0E+00 0.00  
 conception 2.8E-11 0.14  
 lactation 5.0E-08 251.28

I-131 Vapour: methyl iodide 1.5E-08  
 Exposure scenario  
 (weeks)\* e(milk) % of e  
 -130 0.0E+00 0.00  
 -26 0.0E+00 0.00  
 conception 0.0E+00 0.00  
 +5 0.0E+00 0.00  
 +10 0.0E+00 0.00  
 +15 2.5E-16 0.00  
 +25 1.8E-13 0.00  
 +35 9.8E-11 0.65  
 birth 1.2E-09 7.77  
 birth+1 4.0E-08 264.60  
 birth+5 4.0E-08 264.60  
 birth+10 4.0E-08 264.60  
 birth+15 4.0E-08 264.60  
 birth+20 4.0E-08 264.60  
 -260 0.0E+00 0.00  
 -52 0.0E+00 0.00  
 conception 2.2E-11 0.15  
 lactation 3.9E-08 261.36



I-131 F 1.1E-08		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	0.0E+00	0.00
-26	0.0E+00	0.00
conception	0.0E+00	0.00
+5	0.0E+00	0.00
+10	0.0E+00	0.00
+15	1.7E-16	0.00
+25	1.2E-13	0.00
+35	6.7E-11	0.61
birth	8.2E-10	7.46
birth+1	2.7E-08	245.78
birth+5	2.7E-08	245.78
birth+10	2.7E-08	245.78
birth+15	2.7E-08	245.78
birth+20	2.7E-08	245.78
-260	0.0E+00	0.00
-52	0.0E+00	0.00
conception	1.5E-11	0.14
lactation	2.7E-08	242.84

I-131 I 2.2E-08		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	0.0E+00	0.00
-26	0.0E+00	0.00
conception	0.0E+00	0.00
+5	0.0E+00	0.00
+10	0.0E+00	0.00
+15	3.5E-16	0.00
+25	2.6E-13	0.00
+35	1.4E-10	0.63
birth	1.7E-09	7.83
birth+1	5.6E-08	255.44
birth+5	5.6E-08	255.44
birth+10	5.6E-08	255.44
birth+15	5.6E-08	255.44
birth+20	5.6E-08	255.44
-260	0.0E+00	0.00
-52	0.0E+00	0.00
conception	3.1E-11	0.14
lactation	5.5E-08	252.25

PB-210 F 1.1E-06		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	6.7E-09	0.61
-26	1.7E-08	1.54
conception	3.3E-08	2.96
+5	3.9E-08	3.51
+10	4.7E-08	4.25
+15	5.7E-08	5.21 *
+25	9.3E-08	8.42 *
+35	2.0E-07	18.46 **
birth	3.1E-07	28.27 **
birth+1	4.2E-07	38.35 **
birth+5	4.1E-07	37.20 **
birth+10	3.9E-07	35.32 **
birth+15	3.6E-07	32.49 **
birth+20	3.0E-07	27.48 **
-260	8.8E-09	0.80
-52	1.9E-08	1.69
conception	9.1E-08	8.28 *
lactation	3.5E-07	31.52 **

PB-210 I 6.8E-07		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	4.2E-09	0.62
-26	1.1E-08	1.56
conception	2.0E-08	3.01
+5	2.4E-08	3.57
+10	2.9E-08	4.32
+15	3.6E-08	5.30 *
+25	5.8E-08	8.56 *
+35	1.3E-07	18.81 **
birth	2.0E-07	29.01 **
birth+1	2.7E-07	38.98 **
birth+5	2.6E-07	37.80 **
birth+10	2.4E-07	35.89 **
birth+15	2.2E-07	33.00 **
birth+20	1.9E-07	27.91 **
-260	5.6E-09	0.82
-52	1.2E-08	1.72
conception	5.7E-08	8.43 *
lactation	2.2E-07	32.02 **

PO-210 F 7.1E-07		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	0.0E+00	0.00
-26	2.6E-11	0.00
conception	5.6E-10	0.08
+5	1.0E-09	0.14
+10	1.9E-09	0.27
+15	3.6E-09	0.50
+25	1.4E-08	2.00
+35	7.4E-08	10.43 *
birth	1.3E-07	18.44 **
birth+1	2.0E-07	28.15 **
birth+5	2.0E-07	27.87 **
birth+10	1.9E-07	27.21 **
birth+15	1.8E-07	25.66 **
birth+20	1.6E-07	21.91 **
-260	1.8E-11	0.00
-52	9.1E-11	0.01
conception	2.0E-08	2.78
lactation	1.7E-07	24.32 **

PO-210 M 2.2E-06		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	4.2E-14	0.00
-26	1.1E-10	0.01
conception	9.1E-10	0.04
+5	1.4E-09	0.06
+10	2.1E-09	0.10
+15	3.2E-09	0.15
+25	8.5E-09	0.39
+35	2.9E-08	1.31
birth	4.5E-08	2.04
birth+1	6.2E-08	2.83
birth+5	6.1E-08	2.77
birth+10	5.8E-08	2.65
birth+15	5.3E-08	2.42
birth+20	4.4E-08	1.98
-260	4.4E-11	0.00
-52	2.1E-10	0.01
conception	9.2E-09	0.42
lactation	5.1E-08	2.32

PO-210 I 2.4E-07  
 Exposure scenario  
 (weeks)\* e(milk) % of e  
 -130 0.0E+00 0.00  
 -26 1.1E-11 0.00  
 conception 2.3E-10 0.10  
 +5 4.2E-10 0.18  
 +10 7.8E-10 0.33  
 +15 1.5E-09 0.62  
 +25 5.9E-09 2.45  
 +35 3.1E-08 12.77 \*  
 birth 5.5E-08 22.80 \*\*  
 birth+1 8.2E-08 34.30 \*\*  
 birth+5 8.2E-08 33.96 \*\*  
 birth+10 8.0E-08 33.15 \*\*  
 birth+15 7.5E-08 31.25 \*\*  
 birth+20 6.4E-08 26.67 \*\*  
 -260 7.6E-12 0.00  
 -52 3.8E-11 0.02  
 conception 8.2E-09 3.41  
 lactation 7.1E-08 29.61 \*\*

RA-226 M 2.2E-06  
 Exposure scenario  
 (weeks)\* e(milk) % of e  
 -130 3.3E-11 0.00  
 -26 2.4E-10 0.01  
 conception 6.4E-10 0.03  
 +5 7.9E-10 0.04  
 +10 9.9E-10 0.05  
 +15 1.3E-09 0.06  
 +25 2.3E-09 0.11  
 +35 4.8E-09 0.22  
 birth 1.1E-08 0.49  
 birth+1 1.9E-08 0.85  
 birth+5 1.8E-08 0.84  
 birth+10 1.8E-08 0.81  
 birth+15 1.7E-08 0.77  
 birth+20 1.6E-08 0.72  
 -260 8.6E-11 0.00  
 -52 2.8E-10 0.01  
 conception 2.2E-09 0.10  
 lactation 1.7E-08 0.77

RA-226 I 2.8E-07  
 Exposure scenario  
 (weeks)\* e(milk) % of e  
 -130 4.1E-11 0.01  
 -26 5.0E-11 0.02  
 conception 8.6E-11 0.03  
 +5 1.3E-10 0.05  
 +10 2.0E-10 0.07  
 +15 3.6E-10 0.13  
 +25 1.3E-09 0.46  
 +35 4.0E-09 1.44  
 birth 1.6E-08 5.54  
 birth+1 2.8E-08 10.09  
 birth+5 2.8E-08 10.05  
 birth+10 2.8E-08 9.98  
 birth+15 2.8E-08 9.84  
 birth+20 2.7E-08 9.60  
 -260 4.3E-11 0.02  
 -52 5.4E-11 0.02  
 conception 1.4E-09 0.49  
 lactation 2.8E-08 9.83

TH-228 M 2.2E-05		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	1.8E-08	0.08
-26	4.0E-08	0.18
conception	4.8E-08	0.22
+5	4.9E-08	0.22
+10	5.0E-08	0.23
+15	5.1E-08	0.23
+25	5.2E-08	0.24
+35	5.2E-08	0.24
birth	5.2E-08	0.24
birth+1	5.4E-08	0.24
birth+5	4.6E-08	0.21
birth+10	3.6E-08	0.16
birth+15	2.6E-08	0.12
birth+20	1.6E-08	0.07
-260	2.1E-08	0.10
-52	4.0E-08	0.18
conception	5.1E-08	0.23
lactation	3.0E-08	0.14

TH-228 S 2.5E-05		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	1.0E-09	0.00
-26	1.4E-09	0.01
conception	1.4E-09	0.01
+5	1.4E-09	0.01
+10	1.4E-09	0.01
+15	1.3E-09	0.01
+25	1.3E-09	0.01
+35	1.3E-09	0.01
birth	1.3E-09	0.01
birth+1	1.5E-09	0.01
birth+5	1.4E-09	0.01
birth+10	1.1E-09	0.00
birth+15	8.9E-10	0.00
birth+20	6.4E-10	0.00
-260	1.0E-09	0.00
-52	1.4E-09	0.01
conception	1.3E-09	0.01
lactation	9.7E-10	0.00

TH-228 I ( $f_1 = 5E-4$ ) 7.2E-08		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	1.5E-10	0.21
-26	3.4E-10	0.47
conception	4.2E-10	0.58
+5	4.3E-10	0.60
+10	4.5E-10	0.63
+15	4.7E-10	0.65
+25	5.1E-10	0.71
+35	5.5E-10	0.76
birth	6.5E-10	0.90
birth+1	1.1E-09	1.52
birth+5	1.0E-09	1.41
birth+10	9.2E-10	1.27
birth+15	8.1E-10	1.13
birth+20	7.0E-10	0.98
-260	1.8E-10	0.25
-52	3.4E-10	0.47
conception	4.9E-10	0.68
lactation	8.5E-10	1.18

TH-228 I ( $f_1 = 2E-4$ ) 3.5E-08  
 Exposure scenario  
 (weeks)\* e(milk) % of e

-130	6.0E-11	0.17
-26	1.3E-10	0.39
conception	1.7E-10	0.48
+5	1.7E-10	0.50
+10	1.8E-10	0.52
+15	1.9E-10	0.54
+25	2.0E-10	0.58
+35	2.2E-10	0.63
birth	3.0E-10	0.86
birth+1	7.3E-10	2.08
birth+5	7.0E-10	1.99
birth+10	6.6E-10	1.88
birth+15	6.1E-10	1.75
birth+20	5.7E-10	1.63
-260	7.1E-11	0.20
-52	1.4E-10	0.39
conception	1.9E-10	0.56
lactation	6.3E-10	1.79

TH-232 M 2.9E-05  
 Exposure scenario  
 (weeks)\* e(milk) % of e

-130	3.3E-09	0.01
-26	3.8E-09	0.01
conception	4.4E-09	0.02
+5	4.6E-09	0.02
+10	4.7E-09	0.02
+15	5.0E-09	0.02
+25	5.6E-09	0.02
+35	6.7E-09	0.02
birth	8.3E-09	0.03
birth+1	1.3E-08	0.05
birth+5	1.2E-08	0.04
birth+10	1.1E-08	0.04
birth+15	9.2E-09	0.03
birth+20	8.1E-09	0.03
-260	3.5E-09	0.01
-52	3.9E-09	0.01
conception	5.4E-09	0.02
lactation	1.0E-08	0.04

TH-232 S 1.2E-05  
 Exposure scenario  
 (weeks)\* e(milk) % of e

-130	4.8E-10	0.00
-26	3.6E-10	0.00
conception	3.2E-10	0.00
+5	3.1E-10	0.00
+10	3.0E-10	0.00
+15	2.9E-10	0.00
+25	2.8E-10	0.00
+35	2.9E-10	0.00
birth	3.0E-10	0.00
birth+1	3.6E-10	0.00
birth+5	3.2E-10	0.00
birth+10	2.7E-10	0.00
birth+15	1.6E-10	0.00
birth+20	1.3E-10	0.00
-260	4.6E-10	0.00
-52	3.6E-10	0.00
conception	2.9E-10	0.00
lactation	2.3E-10	0.00

TH-232 I ( $f_1 = 5E-4$ ) 2.2E-07  
 Exposure scenario  
 (weeks)\* e(milk) % of e  
 -130 2.7E-11 0.01  
 -26 2.8E-11 0.01  
 conception 2.8E-11 0.01  
 +5 2.8E-11 0.01  
 +10 2.8E-11 0.01  
 +15 2.8E-11 0.01  
 +25 2.8E-11 0.01  
 +35 2.7E-11 0.01  
 birth 5.2E-11 0.02  
 birth+1 1.5E-10 0.07  
 birth+5 1.4E-10 0.06  
 birth+10 1.4E-10 0.06  
 birth+15 1.1E-10 0.05  
 birth+20 1.1E-10 0.05  
 -260 2.7E-11 0.01  
 -52 2.8E-11 0.01  
 conception 2.8E-11 0.01  
 lactation 1.3E-10 0.06

TH-232 I ( $f_1 = 2E-4$ ) 9.2E-08  
 Exposure scenario  
 (weeks)\* e(milk) % of e  
 -130 1.1E-11 0.01  
 -26 1.1E-11 0.01  
 conception 1.1E-11 0.01  
 +5 1.1E-11 0.01  
 +10 1.1E-11 0.01  
 +15 1.1E-11 0.01  
 +25 1.1E-11 0.01  
 +35 1.1E-11 0.01  
 birth 2.3E-11 0.03  
 birth+1 6.5E-11 0.07  
 birth+5 6.4E-11 0.07  
 birth+10 6.2E-11 0.07  
 birth+15 4.4E-11 0.05  
 birth+20 4.4E-11 0.05  
 -260 1.1E-11 0.01  
 -52 1.1E-11 0.01  
 conception 1.1E-11 0.01  
 lactation 6.0E-11 0.07

U-234 F 6.4E-07  
 Exposure scenario  
 (weeks)\* e(milk) % of e  
 -130 7.2E-12 0.00  
 -26 1.1E-11 0.00  
 conception 2.2E-11 0.00  
 +5 2.9E-11 0.00  
 +10 3.9E-11 0.01  
 +15 5.5E-11 0.01  
 +25 1.3E-10 0.02  
 +35 4.4E-10 0.07  
 birth 9.5E-10 0.15  
 birth+1 5.2E-09 0.82  
 birth+5 5.2E-09 0.82  
 birth+10 5.2E-09 0.81  
 birth+15 5.1E-09 0.80  
 birth+20 5.0E-09 0.78  
 -260 7.9E-12 0.00  
 -52 1.2E-11 0.00  
 conception 1.5E-10 0.02  
 lactation 5.0E-09 0.79

U-234 M 2.1E-06  
 Exposure scenario  
 (weeks)\* e(milk) % of e

-130	2.2E-12	0.00
-26	2.8E-11	0.00
conception	7.8E-11	0.00
+5	9.6E-11	0.00
+10	1.2E-10	0.01
+15	1.5E-10	0.01
+25	2.3E-10	0.01
+35	3.9E-10	0.02
birth	5.2E-10	0.02
birth+1	1.1E-09	0.05
birth+5	1.0E-09	0.05
birth+10	9.7E-10	0.05
birth+15	8.9E-10	0.04
birth+20	7.8E-10	0.04
-260	9.0E-12	0.00
-52	3.4E-11	0.00
conception	2.0E-10	0.01
lactation	8.9E-10	0.04

U-234 S 6.8E-06  
 Exposure scenario  
 (weeks)\* e(milk) % of e

-130	4.1E-12	0.00
-26	7.5E-12	0.00
conception	8.9E-12	0.00
+5	9.2E-12	0.00
+10	9.6E-12	0.00
+15	1.0E-11	0.00
+25	1.1E-11	0.00
+35	1.4E-11	0.00
birth	1.8E-11	0.00
birth+1	3.4E-11	0.00
birth+5	3.2E-11	0.00
birth+10	3.0E-11	0.00
birth+15	2.7E-11	0.00
birth+20	2.4E-11	0.00
-260	4.6E-12	0.00
-52	7.6E-12	0.00
conception	1.1E-11	0.00
lactation	2.8E-11	0.00

U-234 I ( $f_1 = 2E-2$ ) 4.9E-08  
 Exposure scenario  
 (weeks)\* e(milk) % of e

-130	5.1E-13	0.00
-26	7.7E-13	0.00
conception	1.6E-12	0.00
+5	2.0E-12	0.00
+10	2.8E-12	0.01
+15	3.9E-12	0.01
+25	9.3E-12	0.02
+35	3.1E-11	0.06
birth	7.7E-11	0.16
birth+1	3.7E-10	0.76
birth+5	3.7E-10	0.76
birth+10	3.7E-10	0.75
birth+15	3.6E-10	0.74
birth+20	3.5E-10	0.72
-260	5.6E-13	0.00
-52	8.7E-13	0.00
conception	1.1E-11	0.02
lactation	3.6E-10	0.73

U-234 I ( $f_1 = 2E-3$ ) 8.3E-09  
 Exposure scenario  
 (weeks)\* e(milk) % of e

-130	5.1E-14	0.00
-26	7.7E-14	0.00
conception	1.6E-13	0.00
+5	2.0E-13	0.00
+10	2.8E-13	0.00
+15	3.9E-13	0.00
+25	9.3E-13	0.01
+35	3.1E-12	0.04
birth	7.7E-12	0.09
birth+1	3.7E-11	0.45
birth+5	3.7E-11	0.45
birth+10	3.7E-11	0.44
birth+15	3.6E-11	0.44
birth+20	3.5E-11	0.42
-260	5.6E-14	0.00
-52	8.7E-14	0.00
conception	1.1E-12	0.01
lactation	3.6E-11	0.43

U-235 F 6.0E-07  
 Exposure scenario  
 (weeks)\* e(milk) % of e

-130	6.8E-12	0.00
-26	1.0E-11	0.00
conception	2.1E-11	0.00
+5	2.7E-11	0.00
+10	3.7E-11	0.01
+15	5.2E-11	0.01
+25	1.2E-10	0.02
+35	4.1E-10	0.07
birth	9.0E-10	0.15
birth+1	5.0E-09	0.83
birth+5	4.9E-09	0.82
birth+10	4.9E-09	0.82
birth+15	4.8E-09	0.81
birth+20	4.7E-09	0.79
-260	7.5E-12	0.00
-52	1.2E-11	0.00
conception	1.4E-10	0.02
lactation	4.8E-09	0.80

U-235 M 1.8E-06  
 Exposure scenario  
 (weeks)\* e(milk) % of e

-130	2.1E-12	0.00
-26	2.7E-11	0.00
conception	7.4E-11	0.00
+5	9.1E-11	0.01
+10	1.1E-10	0.01
+15	1.4E-10	0.01
+25	2.1E-10	0.01
+35	3.7E-10	0.02
birth	4.9E-10	0.03
birth+1	1.0E-09	0.06
birth+5	9.7E-10	0.05
birth+10	9.2E-10	0.05
birth+15	8.4E-10	0.05
birth+20	7.4E-10	0.04
-260	8.5E-12	0.00
-52	3.2E-11	0.00
conception	1.9E-10	0.01
lactation	8.4E-10	0.05



U-235 S 6.1E-06  
 Exposure scenario  
 (weeks)\* e(milk) % of e  
 -130 3.9E-12 0.00  
 -26 7.1E-12 0.00  
 conception 8.5E-12 0.00  
 +5 8.8E-12 0.00  
 +10 9.1E-12 0.00  
 +15 9.5E-12 0.00  
 +25 1.1E-11 0.00  
 +35 1.3E-11 0.00  
 birth 1.7E-11 0.00  
 birth+1 3.2E-11 0.00  
 birth+5 3.1E-11 0.00  
 birth+10 2.8E-11 0.00  
 birth+15 2.6E-11 0.00  
 birth+20 2.3E-11 0.00  
 -260 4.4E-12 0.00  
 -52 7.2E-12 0.00  
 conception 1.0E-11 0.00  
 lactation 2.6E-11 0.00

U-235 I ( $f_1 = 2E-2$ ) 4.6E-08  
 Exposure scenario  
 (weeks)\* e(milk) % of e  
 -130 4.8E-13 0.00  
 -26 7.3E-13 0.00  
 conception 1.5E-12 0.00  
 +5 1.9E-12 0.00  
 +10 2.6E-12 0.01  
 +15 3.7E-12 0.01  
 +25 8.8E-12 0.02  
 +35 2.9E-11 0.06  
 birth 7.3E-11 0.16  
 birth+1 3.5E-10 0.77  
 birth+5 3.5E-10 0.76  
 birth+10 3.5E-10 0.76  
 birth+15 3.4E-10 0.75  
 birth+20 3.3E-10 0.73  
 -260 5.3E-13 0.00  
 -52 8.2E-13 0.00  
 conception 1.0E-11 0.02  
 lactation 3.4E-10 0.74

U-235 I ( $f_1 = 2E-3$ ) 8.3E-09  
 Exposure scenario  
 (weeks)\* e(milk) % of e  
 -130 4.8E-14 0.00  
 -26 7.3E-14 0.00  
 conception 1.5E-13 0.00  
 +5 1.9E-13 0.00  
 +10 2.6E-13 0.00  
 +15 3.7E-13 0.00  
 +25 8.8E-13 0.01  
 +35 2.9E-12 0.04  
 birth 7.3E-12 0.09  
 birth+1 3.5E-11 0.42  
 birth+5 3.5E-11 0.42  
 birth+10 3.5E-11 0.42  
 birth+15 3.4E-11 0.41  
 birth+20 3.3E-11 0.40  
 -260 5.3E-14 0.00  
 -52 8.2E-14 0.00  
 conception 1.0E-12 0.01  
 lactation 3.4E-11 0.41

U-238 F 5.8E-07		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	6.7E-12	0.00
-26	1.0E-11	0.00
conception	2.0E-11	0.00
+5	2.6E-11	0.00
+10	3.6E-11	0.01
+15	5.1E-11	0.01
+25	1.2E-10	0.02
+35	4.0E-10	0.07
birth	8.7E-10	0.15
birth+1	4.8E-09	0.83
birth+5	4.8E-09	0.83
birth+10	4.8E-09	0.82
birth+15	4.7E-09	0.81
birth+20	4.6E-09	0.79
-260	7.4E-12	0.00
-52	1.1E-11	0.00
conception	1.4E-10	0.02
lactation	4.6E-09	0.80

U-238 M 1.6E-06		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	2.0E-12	0.00
-26	2.7E-11	0.00
conception	7.5E-11	0.00
+5	9.1E-11	0.01
+10	1.1E-10	0.01
+15	1.4E-10	0.01
+25	2.1E-10	0.01
+35	3.7E-10	0.02
birth	4.9E-10	0.03
birth+1	9.9E-10	0.06
birth+5	9.5E-10	0.06
birth+10	9.0E-10	0.06
birth+15	8.2E-10	0.05
birth+20	7.2E-10	0.05
-260	8.5E-12	0.00
-52	3.2E-11	0.00
conception	1.9E-10	0.01
lactation	8.3E-10	0.05

U-238 S 5.7E-06		
Exposure scenario		
(weeks)*	e(milk)	% of e
-130	3.9E-12	0.00
-26	7.1E-12	0.00
conception	8.5E-12	0.00
+5	8.8E-12	0.00
+10	9.1E-12	0.00
+15	9.5E-12	0.00
+25	1.1E-11	0.00
+35	1.3E-11	0.00
birth	1.7E-11	0.00
birth+1	3.2E-11	0.00
birth+5	3.0E-11	0.00
birth+10	2.8E-11	0.00
birth+15	2.5E-11	0.00
birth+20	2.2E-11	0.00
-260	4.4E-12	0.00
-52	7.2E-12	0.00
conception	1.0E-11	0.00
lactation	2.6E-11	0.00

U-238 I ( $f_1 = 2E-2$ ) 4.4E-08  
 Exposure scenario  
 (weeks)\* e(milk) % of e

-130	4.7E-13	0.00
-26	7.1E-13	0.00
conception	1.4E-12	0.00
+5	1.9E-12	0.00
+10	2.5E-12	0.01
+15	3.6E-12	0.01
+25	8.6E-12	0.02
+35	2.9E-11	0.06
birth	7.0E-11	0.16
birth+1	3.4E-10	0.78
birth+5	3.4E-10	0.77
birth+10	3.4E-10	0.77
birth+15	3.3E-10	0.76
birth+20	3.2E-10	0.74
-260	5.2E-13	0.00
-52	8.0E-13	0.00
conception	9.7E-12	0.02
lactation	3.3E-10	0.75

U-238 I ( $f_1 = 2E-3$ ) 7.6E-09  
 Exposure scenario  
 (weeks)\* e(milk) % of e

-130	4.7E-14	0.00
-26	7.1E-14	0.00
conception	1.4E-13	0.00
+5	1.9E-13	0.00
+10	2.5E-13	0.00
+15	3.6E-13	0.00
+25	8.6E-13	0.01
+35	2.9E-12	0.04
birth	7.1E-12	0.09
birth+1	3.4E-11	0.45
birth+5	3.4E-11	0.45
birth+10	3.4E-11	0.44
birth+15	3.3E-11	0.44
birth+20	3.2E-11	0.43
-260	5.2E-14	0.00
-52	8.0E-14	0.00
conception	9.7E-13	0.01
lactation	3.3E-11	0.43

PU-239 M 3.2E-05  
 Exposure scenario  
 (weeks)\* e(milk) % of e

-130	4.7E-10	0.00
-26	7.4E-10	0.00
conception	1.2E-09	0.00
+5	1.4E-09	0.00
+10	1.5E-09	0.00
+15	1.8E-09	0.01
+25	2.5E-09	0.01
+35	3.9E-09	0.01
birth	6.2E-09	0.02
birth+1	1.0E-08	0.03
birth+5	9.9E-09	0.03
birth+10	9.3E-09	0.03
birth+15	8.5E-09	0.03
birth+20	7.5E-09	0.02
-260	5.3E-10	0.00
-52	7.9E-10	0.00
conception	2.3E-09	0.01
lactation	8.5E-09	0.03

PU-239 S 8.3E-06  
 Exposure scenario  
 (weeks)\* e(milk) % of e  
 -130 6.7E-11 0.00  
 -26 9.3E-11 0.00  
 conception 1.0E-10 0.00  
 +5 1.1E-10 0.00  
 +10 1.1E-10 0.00  
 +15 1.1E-10 0.00  
 +25 1.2E-10 0.00  
 +35 1.3E-10 0.00  
 birth 1.6E-10 0.00  
 birth+1 2.0E-10 0.00  
 birth+5 1.8E-10 0.00  
 birth+10 1.6E-10 0.00  
 birth+15 1.3E-10 0.00  
 birth+20 1.0E-10 0.00  
 -260 7.1E-11 0.00  
 -52 9.4E-11 0.00  
 conception 1.2E-10 0.00  
 lactation 1.4E-10 0.00

PU-239 I ( $f_1 = 5E-4$ ) 2.5E-07  
 Exposure scenario  
 (weeks)\* e(milk) % of e  
 -130 3.9E-12 0.00  
 -26 4.1E-12 0.00  
 conception 4.0E-12 0.00  
 +5 4.0E-12 0.00  
 +10 3.9E-12 0.00  
 +15 3.8E-12 0.00  
 +25 3.5E-12 0.00  
 +35 2.9E-12 0.00  
 birth 3.5E-11 0.01  
 birth+1 1.0E-10 0.04  
 birth+5 1.0E-10 0.04  
 birth+10 1.0E-10 0.04  
 birth+15 1.0E-10 0.04  
 birth+20 1.0E-10 0.04  
 -260 3.9E-12 0.00  
 -52 4.1E-12 0.00  
 conception 3.9E-12 0.00  
 lactation 1.0E-10 0.04

PU-239 I ( $f_1 = 1E-5$ ) 9.0E-09  
 Exposure scenario  
 (weeks)\* e(milk) % of e  
 -130 7.8E-14 0.00  
 -26 8.3E-14 0.00  
 conception 8.1E-14 0.00  
 +5 8.0E-14 0.00  
 +10 7.8E-14 0.00  
 +15 7.6E-14 0.00  
 +25 6.9E-14 0.00  
 +35 5.8E-14 0.00  
 birth 7.0E-13 0.01  
 birth+1 2.1E-12 0.02  
 birth+5 2.1E-12 0.02  
 birth+10 2.1E-12 0.02  
 birth+15 2.1E-12 0.02  
 birth+20 2.0E-12 0.02  
 -260 7.8E-14 0.00  
 -52 8.3E-14 0.00  
 conception 7.7E-14 0.00  
 lactation 2.0E-12 0.02

PU-239 I ( $f_1 = 1E-4$ ) 5.3E-08  
 Exposure scenario  
 (weeks)\* e(milk) % of e  
 -130 7.8E-13 0.00  
 -26 8.3E-13 0.00  
 conception 8.1E-13 0.00  
 +5 8.0E-13 0.00  
 +10 7.8E-13 0.00  
 +15 7.6E-13 0.00  
 +25 6.9E-13 0.00  
 +35 5.8E-13 0.00  
 birth 7.0E-12 0.01  
 birth+1 2.1E-11 0.04  
 birth+5 2.1E-11 0.04  
 birth+10 2.1E-11 0.04  
 birth+15 2.1E-11 0.04  
 birth+20 2.0E-11 0.04  
 -260 7.8E-13 0.00  
 -52 8.3E-13 0.00  
 conception 7.7E-13 0.00  
 lactation 2.0E-11 0.04

AM-241 M 2.7E-05  
 Exposure scenario  
 (weeks)\* e(milk) % of e  
 -130 9.4E-10 0.00  
 -26 1.6E-09 0.01  
 conception 2.0E-09 0.01  
 +5 2.2E-09 0.01  
 +10 2.4E-09 0.01  
 +15 2.6E-09 0.01  
 +25 3.2E-09 0.01  
 +35 4.2E-09 0.02  
 birth 5.0E-09 0.02  
 birth+1 9.0E-09 0.03  
 birth+5 8.5E-09 0.03  
 birth+10 7.8E-09 0.03  
 birth+15 6.9E-09 0.03  
 birth+20 5.9E-09 0.02  
 -260 1.0E-09 0.00  
 -52 1.6E-09 0.01  
 conception 3.0E-09 0.01  
 lactation 7.1E-09 0.03

AM-241 I 2.0E-07  
 Exposure scenario  
 (weeks)\* e(milk) % of e  
 -130 7.6E-12 0.00  
 -26 1.1E-11 0.01  
 conception 1.2E-11 0.01  
 +5 1.3E-11 0.01  
 +10 1.3E-11 0.01  
 +15 1.4E-11 0.01  
 +25 1.5E-11 0.01  
 +35 1.7E-11 0.01  
 birth 2.4E-11 0.01  
 birth+1 9.3E-11 0.05  
 birth+5 9.1E-11 0.05  
 birth+10 8.8E-11 0.04  
 birth+15 8.4E-11 0.04  
 birth+20 8.1E-11 0.04  
 -260 8.0E-12 0.00  
 -52 1.1E-11 0.01  
 conception 1.4E-11 0.01  
 lactation 8.5E-11 0.04

## ANNEX D: ERRATUM

Erratum for Part 1 of this report, *Doses to the embryo/fetus and neonate from intakes of radionuclides by the mother*, Phipps A W, Smith T J, Fell T P and Harrison J D (HSE CRC 397/2001).

In Annex B of Part 1 the dose coefficients for the offspring following intakes of <sup>90</sup>Sr by ingestion ( $f_1=0.01$ ) had been compared, erroneously, with the adult worker dose coefficient for a gut uptake fraction ( $f_1$ ) of 0.3. The ratios were thus lower than they should have been. This section is corrected below.

Sr-90 Ingestion ( $f_1=0.01$ ),  $e_{\text{adult}} = 2.7\text{E-}09$

Exposure scenario (weeks)	e(in utero)	% of e	e(offspring)	% of e
-130	6.5E-12	0.24%	9.7E-12	0.36%
-26	2.1E-11	0.78%	2.8E-11	1.04%
conception	7.0E-11	2.59%	8.5E-11	3.15%
5	1.3E-10	4.81%	1.5E-10	5.56%
10	6.8E-10	25.19%	7.1E-10	26.30%
15	1.2E-09	44.44%	1.3E-09	48.15%
25	1.6E-09	59.26%	2.1E-09	77.78%
35	7.5E-10	27.78%	2.3E-09	85.19%
-260	1.0E-11	0.37%	1.4E-11	0.52%
-52	2.6E-11	0.96%	3.4E-11	1.26%
during	9.4E-10	34.81%	1.4E-09	51.85%