BELTSVILLE AGRICULRAL RESEARCH CENTER, BELTSVILLE, MARYLAND
DEFAULT AND RECOMMENDED VALUES FOR RESRAD INPUT PARAMETERS

RESRAD Version 6.3					Parameter Justification	
Parameter	**Code**	**Default Value**	**User Input Value**	**Units**	**Comments**	**Reference**
PATHWAY SELECTIONS						
External Gamma	N/A	Active	Active	N/A	N/A	N/A
Inhalation (without radon)	N/A	Active	Active	N/A	N/A	N/A
Plant Ingestion	N/A	Active	Active	N/A	N/A	N/A
Meat Ingestion	N/A	Active	Active	N/A	N/A	N/A
Milk Ingestion	N/A	Active	Active	N/A	N/A	N/A
Aquatic Foods	N/A	Active	Active	N/A	N/A	N/A
Drinking Water	N/A	Active	Active	N/A	N/A	N/A
Soil Ingestion	N/A	Active	Active	N/A	N/A	N/A
Radon	N/A	Inactive	Inactive	N/A	Not applicable per Federal Register, 1994, p. 43210	NRC 1994
CONTAMINATED ZONE PARAMETERS						
Area of contaminated zone	AREA	10,000	513	m^2	Based on the dimensions of each pit, site-specific value was calculated.	ANL 1993 (Section 30)
Thickness of contaminated zone	THICK0	2	**3.048**	m	As a conservative approach, the contamination was assumed to be uniformly distributed from the bottom of the pit to the depth of groundwater (10' = 3.048 meter).	ANL 1993 (Section 39)
Length parallel to the aquifer	LCZPAQ	100	22.7	m	For all cases, the length parallel to the aquifer was calculated as the square root of the contaminated zone area.	ANL 1993 (Section 16)
Times for calculations	TI	1, 3, 10, 30, 100, 300, 1000	1, 3, 10, 30, 100, 300, 1000	yr	RESRAD defaults for calculation times.	Yu 2001
COVER AND CONTAMINATED ZONE HYDROLOGICAL DATA						
Cover depth	COVER)	0	0	m	As a conservative approach for dose modeling, no cover depth was assumed.	ANL 1993 (Section 31)
Density of cover material	DENSCV	1.5	**N/A**	g/cm^3	Lack of cover depth precludes an assigned value for this parameter.	ANL 1993 (Section 2)
Cover erosion rate	VCV	0.001	**N/A**	m/yr	Lack of cover depth precludes an assigned value for this parameter.	ANL 1993

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RESRAD Version 6.3					Parameter Justification	
Parameter	**Code**	**Default Value**	**User Input Value**	**Units**	**Comments**	**Reference**
						(Section 14)
Density of contaminated zone	DENSCZ	1.5	1.5	g/cm^3	Due to complex soil composition, RESRAD default value was assumed.	ANL 1993 (Section 2)
Contaminated zone erosion rate	VCZ	0.001	0.0006	m/yr	No site-specific data, NRC and EPA value for this parameter could be located. Assuming 2% slope and significant farming and gardening activities at the site, 0.0006 m/yr was assigned for this parameter.	ANL, 1993
Contaminated zone total porosity	TPCZ	0.4	0.4	unitless	Due to complex soil composition, RESRAD default value was assumed.	ANL 1993 (Section 3)
Contaminated zone field capacity	FCCZ	0.2	0.2	unitless	Due to complex soil composition, RESRAD default value was assumed.	Yu 2001
Contaminated zone hydraulic conductivity	HCCZ	10	10	m/yr	Due to complex soil composition, RESRAD default value was assumed.	ANL 1993 (Section 5)
Contaminated zone b parameter	BCZ	5.3	5.3	unitless	Due to complex soil composition, RESRAD default value was assumed.	ANL 1993 (Section 13)
Humidity in air	HUMID	8	8	g/m^3	No site-specific data available. RESRAD default was used.	Yu 2001
Evapotranspiration coefficient	EVAPTR	0.5	0.5	unitless	No site-specific data available. RESRAD default was used.	ANL 1993 (Section 12)
Wind speed	WIND	2	**4.2**	m/sec	Site-specific value based on average annual wind speed of 9.4 mph.	ANL 1993 (Section 21) Cabrera 2007
Precipitation	PRECIP	1	**1**	m/yr	Site-specific value based on reported average annual rainfall, 39.54 in (100.4 cm) over the year.	ANL 1993 (Section 9) Cabrera 2007
Irrigation	RI	0.2	0.2	m/yr	No site-specific data available. RESRAD default used.	ANL 1993 (Section 11)
Irrigation mode	IDITCH	Overhead	Overhead	unitless	The “Overhead” and “Ditch” designations are independent of the depth of contaminated zone and have no significant impact on the RESRAD evaluation. The RESRAD default designation was selected.	Yu 2001
Runoff coefficient	RUNOFF	0.2	0.2	unitless	The RESRAD default value was selected.	ANL 1993

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RESRAD Version 6.3					Parameter Justification	
Parameter	**Code**	**Default Value**	**User Input Value**	**Units**	**Comments**	**Reference**
						(Section 10)
Watershed area for nearby stream or pond	WAREA	1.00E6	1.00E6	m^2	RESRAD default was used.	ANL 1993 (Section 17)
Accuracy for water/soil computations	EPS	0.001	0.001	unitless	RESRAD default was used.	Yu 2001
SATURATED ZONE HYDROLOGICAL DATA						
Density of saturated zone	DENSAQ	1.5	1.5	g/cm^3	Due to complex soil composition, RESRAD default value was assumed.	USDA 2006b ANL 1993 (Section 2)
Saturated zone total porosity	TPSZ	0.4	0.4	unitless	Due to complex soil composition, RESRAD default value was assumed.	ANL 1993 (Section 3)
Saturated zone effective porosity	EPSZ	0.2	0.2	unitless	Due to complex soil composition, RESRAD default value was assumed.	ANL 1993 (Section 4)
Saturated zone field capacity	FCSZ	0.2	0.2	unitless	Due to complex soil composition, RESRAD default value was assumed.	Yu 2001
Saturated zone hydraulic conductivity	HCSZ	100	100	m/yr	Due to complex soil composition, RESRAD default value was assumed.	ANL 1993 (Section 5)
Saturated zone hydraulic gradient	HGWT	0.02	0.02	unitless	Due to complex soil composition, RESRAD default value was assumed.	ANL 1993 (Section 15)
Saturated zone b parameter	BSZ	5.3	5.3	unitless	Due to complex soil composition, RESRAD default value was assumed.	ANL 1993 (Section 13)
Water table drop rate	VWT	0.001	0.001	m/yr	Due to complex soil composition, RESRAD default value was assumed.	ANL 1993 (Section 18)
Well pump intake depth (meters below water table)	DWIBWT	10	10	m	Due to complex soil composition, RESRAD default value was assumed.	ANL 1993 (Section 19)
Model for Water Transport Parameters [Non-dispersion (ND) or Mass-Balance (MB)]	MODEL	ND	**MB**	unitless	Per NRC guidance, the MB model is an acceptable approach and provides a potentially more conservative dose estimate relative to the ND model. The MB model assumes a well is located at the center of the site rather than on the down gradient side of the Site boundary.	NUREG-1757, Vo. 2, App. I, page I-40 NRC 1999b

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RESRAD Version 6.3					Parameter Justification	
Parameter	**Code**	**Default Value**	**User Input Value**	**Units**	**Comments**	**Reference**
Well pumping rate	UW	250	250	m^3/yr	RESRAD default was used.	Yu 2001
UNCONTAMINATED UNSATURATED ZONE PARAMETERS						
Number of unsaturated zone strata	NS	1	1	unitless	RESRAD default value was assumed.	ANL 1993 (Section 25)
Unsaturated zone thickness	H(1)	4	**0**	m	The unsaturated zone is assumed to be contaminated; hence no unsaturated zone was assumed for this site.	ANL 1993 (Section 25)
Unsaturated zone soil density	DENSUZ(1)	1.5	1.5	g/cm^3	RESRAD default value was assumed.	ANL 1993 (Section 2)
Unsaturated zone total porosity	TPUZ(1)	0.4	0.4	unitless	RESRAD default value was assumed.	ANL 1993 (Section 3)
Unsaturated zone effective porosity	EPSZ(1)	0.2	0.2	unitless	RESRAD default value was assumed.	ANL 1993 (Section 4)
Unsaturated zone field capacity	FCSZ(1)	0.2	0.2	unitless	RESRAD default value was assumed.	Yu 2001
Unsaturated zone hydraulic conductivity	HCSZ(1)	100	100	m/yr	RESRAD default value was assumed.	ANL 1993 (Section 5)
Unsaturated zone b parameter	BSZ	5.3	5.3	unitless	RESRAD default value was assumed.	ANL 1993 (Section 13)
ELEMENTAL DISTRIBUTION (PARTITION) COEFFICIENTS AND LEACH RATES: CARBON-14						
Contaminated zone	DCNUCC(2 & 3)	0	6.7	cm^3/g	NUREG/CR 5512 Volume 1 Table 6.7	NUREG/CR 5512 Vol.1 ANL 1993 (Section 32)
Unsaturated zone	DCNUCU(2 & 3,1)	0	6.7	cm^3/g	NUREG/CR 5512 Volume 1 Table 6.7	
Saturated zone	DCNUCS(2 & 3)	0	0	cm^3/g	RESRAD default was used.	
Leach rate	ALEACH(2 & 3)	0	0	y^{-1}	RESRAD default was used.	Yu 2001
Solubility constant	SOLUBK(2 & 3)	0	0	unitless	RESRAD default was used.	Yu 2001

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RESRAD Version 6.3					Parameter Justification	
Parameter	**Code**	**Default Value**	**User Input Value**	**Units**	**Comments**	**Reference**
ELEMENTAL DISTRIBUTION (PARTITION) COEFFICIENTS AND LEACH RATES: CHLORINE-36						
Contaminated zone	DCNUCC(1)	0.1	**1.7**	cm^3/g	NUREG/CR 5512 Volume 1 Table 6.7	NUREG/CR 5512 Vol.1 ANL 1993 (Section 32)
Unsaturated zone	DCNUCU(1,1)	0.1	**1.7**	cm^3/g	NUREG/CR 5512 Volume 1 Table 6.7	
Saturated zone	DCNUCS(1)	0.1	0.1	cm^3/g	RESRAD default was used.	
Leach rate	ALEACH(1)	0	0	y^{-1}	RESRAD default was used.	Yu 2001
Solubility constant	SOLUBK(1)	0	0	unitless	RESRAD default was used.	Yu 2001
ELEMENTAL DISTRIBUTION (PARTITION) COEFFICIENTS AND LEACH RATES: CESIUM-137						
Contaminated zone	DCNUCC(1)	4600	**270**	cm^3/g	NUREG/CR 5512 Volume 1 Table 6.7	NUREG/CR 5512 Vol.1 ANL 1993 (Section 32)
Unsaturated zone	DCNUCU(1,1)	4600	**270**	cm^3/g	NUREG/CR 5512 Volume 1 Table 6.7	
Saturated zone	DCNUCS(1)	4600	4,600	cm^3/g	RESRAD default was used.	
Leach rate	ALEACH(1)	0	0	y^{-1}	RESRAD default was used.	Yu 2001
Solubility constant	SOLUBK(1)	0	0	unitless	RESRAD default was used.	Yu 2001
ELEMENTAL DISTRIBUTION (PARTITION) COEFFICIENTS AND LEACH RATES: IRON-55						
Contaminated zone	DCNUCC(1)	1,000	**160**	cm^3/g	NUREG/CR 5512 Volume 1 Table 6.7	NUREG/CR 5512 Vol.1 ANL 1993 (Section 32)
Unsaturated zone	DCNUCU(1,1)	1,000	**160**	cm^3/g	NUREG/CR 5512 Volume 1 Table 6.7	
Saturated zone	DCNUCS(1)	1,000	1,000	cm^3/g	RESRAD default was used.	
Leach rate	ALEACH(1)	0	0	y^{-1}	RESRAD default was used.	Yu 2001

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RESRAD Version 6.3					Parameter Justification	
Parameter	**Code**	**Default Value**	**User Input Value**	**Units**	**Comments**	**Reference**
Solubility constant	SOLUBK(1)	0	0	unitless	RESRAD default was used.	Yu 2001
ELEMENTAL DISTRIBUTION (PARTITION) COEFFICIENTS AND LEACH RATES: SODIUM-22						
Contaminated zone	DCNUCC(1)	10	**76**	cm^3/g	NUREG/CR 5512 Volume 1 Table 6.7	NUREG/CR 5512 Vol.1 ANL 1993 (Section 32)
Unsaturated zone	DCNUCU(1,1)	10	**76**	cm^3/g	NUREG/CR 5512 Volume 1 Table 6.7	
Saturated zone	DCNUCS(1)	10	10	cm^3/g	RESRAD default was used.	
Leach rate	ALEACH(1)	0	0	y^{-1}	RESRAD default was used.	Yu 2001
Solubility constant	SOLUBK(1)	0	0	unitless	RESRAD default was used.	Yu 2001
ELEMENTAL DISTRIBUTION (PARTITION) COEFFICIENTS AND LEACH RATES: NICKEL-63						
Contaminated zone	DCNUCC(1)	1,000	**400**	cm^3/g	NUREG/CR 5512 Volume 1 Table 6.7	NUREG/CR 5512 Vol.1 ANL 1993 (Section 32)
Unsaturated zone	DCNUCU(1,1)	1,000	**400**	cm^3/g	NUREG/CR 5512 Volume 1 Table 6.7	
Saturated zone	DCNUCS(1)	1,000	1,000	cm^3/g	RESRAD default was used.	
Leach rate	ALEACH(1)	0	0	y^{-1}	RESRAD default was used.	Yu 2001
Solubility constant	SOLUBK(1)	0	0	unitless	RESRAD default was used.	Yu 2001
ELEMENTAL DISTRIBUTION (PARTITION) COEFFICIENTS AND LEACH RATES: LEAD-210						
Contaminated zone	DCNUCC(1)	100	**270**	cm^3/g	NUREG/CR 5512 Volume 1 Table 6.7	NUREG/CR 5512 Vol.1 ANL 1993 (Section 32)
Unsaturated zone	DCNUCU(1,1)	100	**270**	cm^3/g	NUREG/CR 5512 Volume 1 Table 6.7	
Saturated zone	DCNUCS(1)	100	100	cm^3/g	RESRAD default was used.	

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RESRAD Version 6.3					Parameter Justification	
Parameter	**Code**	**Default Value**	**User Input Value**	**Units**	**Comments**	**Reference**
Leach rate	ALEACH(1)	0	0	y^{-1}	RESRAD default was used.	Yu 2001
Solubility constant	SOLUBK(1)	0	0	unitless	RESRAD default was used.	Yu 2001
ELEMENTAL DISTRIBUTION (PARTITION) COEFFICIENTS AND LEACH RATES: RADIUM-226						
Contaminated zone	DCNUCC(1)	70	**500**	cm^3/g	NUREG/CR 5512 Volume 1 Table 6.7	NUREG/CR 5512 Vol.1 ANL 1993 (Section 32)
Unsaturated zone	DCNUCU(1,1)	70	**500**	cm^3/g	NUREG/CR 5512 Volume 1 Table 6.7	
Saturated zone	DCNUCS(1)	70	70	cm^3/g	RESRAD default was used.	
Leach rate	ALEACH(1)	0	0	y^{-1}	RESRAD default was used.	Yu 2001
Solubility constant	SOLUBK(1)	0	0	unitless	RESRAD default was used.	Yu 2001
ELEMENTAL DISTRIBUTION (PARTITION) COEFFICIENTS AND LEACH RATES: STRONIUM-90						
Contaminated zone	DCNUCC(1)	30	**15**	cm^3/g	NUREG/CR 5512 Volume 1 Table 6.7	NUREG/CR 5512 Vol.1 ANL 1993 (Section 32)
Unsaturated zone	DCNUCU(1,1)	30	**15**	cm^3/g	NUREG/CR 5512 Volume 1 Table 6.7	
Saturated zone	DCNUCS(1)	30	30	cm^3/g	RESRAD default was used.	
Leach rate	ALEACH(1)	0	0	y^{-1}	RESRAD default was used.	Yu 2001
Solubility constant	SOLUBK(1)	0	0	unitless	RESRAD default was used.	Yu 2001
ELEMENTAL DISTRIBUTION (PARTITION) COEFFICIENTS AND LEACH RATES: TRITIUM						
Contaminated zone	DCNUCC(1)	0	**0**	cm^3/g	NUREG/CR 5512 Volume 1 Table 6.7	NUREG/CR 5512 Vol.1 ANL 1993 (Section 32)
Unsaturated zone	DCNUCU(1,1)	0	**0**	cm^3/g	NUREG/CR 5512 Volume 1 Table 6.7	

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RESRAD Version 6.3					Parameter Justification	
Parameter	**Code**	**Default Value**	**User Input Value**	**Units**	**Comments**	**Reference**
Saturated zone	DCNUCS(1)	0	0	cm^3/g	RESRAD default was used.	
Leach rate	ALEACH(1)	0	0	y^{-1}	RESRAD default was used.	Yu 2001
Solubility constant	SOLUBK(1)	0	0	unitless	RESRAD default was used.	Yu 2001
OCCUPANCY, INHALATION AND EXTERNAL GAMMA DATA						
Inhalation rate	INHALR	8,400	8,400	m^3/y	RESRAD default used.	ANL 1993 (Section 43)
Mass loading for inhalation	MLINH	0.0001	0.0004	g/m^3	NUREG/CR 5512 Vol 4 Table 4	NUREG/CR 5512 Vol 4 ANL 1993 (Section 35)
Exposure duration	ED	30	30	yr	RESRAD default used. DCGL calculations not influenced by exposure duration.	Yu 2001
Inhalation shielding factor	SHF3	0.4	0.4	unitless	RESRAD default used.	ANL 1993 (Section 36)
External gamma shielding factor	SHF1	0.7	**0.5512**	unitless	NUREG/CR 5512 Vol 4 Table 4	NUREG/CR 5512 (Vol. 4, Table 4)
Indoor time fraction	FIND	0.5	**0.6571**	unitless	NUREG/CR 5512 Vol 4 Table 4	NUREG/CR 5512 (Vol. 4, Table 4)
Outdoor time fraction	FOTD	0.25	**0.1181**	unitless	NUREG/CR 5512 Vol 4 Table 4	NUREG/CR 5512 (Vol. 4, Table 4)
Shape of the contaminated zone (circular or non-circular)	FS	Circular	Circular	unitless	RESRAD default used.	ANL 1993 (Section 50)
INGESTION PATHWAY (DIETARY DATA)						
Fruits, vegetables and grain consumption	DIET(1)	160	**112**	kg/yr	No site-specific value is available. Hence, NRC value was assigned.	ANL 1993 (Section 42) NUREG/CR 5512 (Vol. 4, p. 3-6)

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RESRAD Version 6.3					Parameter Justification	
Parameter	**Code**	**Default Value**	**User Input Value**	**Units**	**Comments**	**Reference**
Leafy vegetable consumption	DIET(2)	14	**21.4**	kg/yr	No site-specific value is available. Hence, NRC value was assigned.	ANL 1993 (Section 44) NUREG/CR 5512 (Vol. 4, p. 3-6)
Milk consumption	DIET(3)	92	**233**	L/yr	No site-specific value is available. Hence, NRC value was assigned.	ANL 1993 (Section 47) NUREG/CR 5512 (Vol. 4, p. 3-6)
Meat and poultry consumption	DIET(4)	63	**65.1**	kg/yr	No site-specific value is available. Hence, NRC value was assigned.	ANL 1993 (Section 46) NUREG/CR 5512 (Vol. 4, p. 3-6)
Fish consumption	DIET(5)	5.4	**20.6**	kg/yr	No site-specific value is available. Hence, NRC value was assigned.	ANL 1993 (Section 46) NUREG/CR 5512 (Vol. 4, p. 3-6)
Other seafood consumption	DIET(6)	0.9	0.9	kg/yr	No site-specific or NRC value is available. Hence, RESRAD default value was assigned.	ANL 1993 (Section 46) NUREG/CR 5512 (Vol. 4, p. 3-6)
Soil ingestion rate	SOIL	36.5	18.3	g/yr	No site-specific value is available. Hence, NRC value was assigned.	ANL 1993 (Section 46) NUREG/CR 5512 (Vol. 4, p. 3-6)
Drinking water intake	DWI	510	**478.5**	L/yr	No site-specific value is available. Hence, NRC value was assigned.	ANL 1993 (Section 46) NUREG/CR 5512 (Vol. 4, p. 3-6)
Contamination fraction of drinking water	FDW	1	1	unitless	Maximum NRC value used.	NRC 1999b Yu 2001
Contamination fraction of household water	FHHW	1	**NA**	unitless	Radon pathway is not selected; hence this parameter is not applicable	N/A

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RESRAD Version 6.3					Parameter Justification	
Parameter	**Code**	**Default Value**	**User Input Value**	**Units**	**Comments**	**Reference**
Contamination fraction of livestock water	FLW	1	1	unitless	Maximum NRC value used.	N/A
Contamination fraction of irrigation water	FIRW	1	1	unitless	Maximum NRC value used.	NRC 1999b
Contamination fraction of aquatic food	FR9	0.5	0.5	unitless	No site-specific or NRC value is available. Hence, RESRAD default value was assigned.	N/A
Contaminated fraction of plant food	FPLANT	-1	-1	unitless	Setting the parameter to -1 allows RESRAD to determine appropriate value based on area factor.	ANL 1993
Contaminated fraction of meat	FMEAT	-1	-1	unitless	Setting the parameter to -1 allows RESRAD to determine appropriate value based on area factor.	N/A
Contaminated fraction of milk	FMILK	-1	-1	unitless	Setting the parameter to -1 allows RESRAD to determine appropriate value based on area factor.	N/A
INGESTION PATHWAY (NON-DIETARY DATA)						
Livestock fodder intake for meat	LP15	68	**26.85**	kg/day	No site-specific value was available. NUREG/CR-6697 provides a range of values (13.4 to 53.6 kg/day); however, a specific justification for selecting a particular value within the range provided could not be identified. Therefore, the NRC value was selected.	NUREG/CR-5512, Vol 4 Table 3
Livestock fodder intake for milk	LP16	55	**63.25**	kg/day	No site-specific value was available. NUREG/CR-6697 provides a range of values (31.6 to 126 kg/day); however, a specific justification for selecting a particular value within the range provided could not be identified. Therefore, the default value was selected.	NUREG/CR-5512, Vol 4 Table 3
Livestock water intake for meat	LW15	50	50	L/day	No site-specific value was available. NUREG/CR-6697 provides a range of values (25 to 100 L/day). The "base" or middle value (50 L/day) is in agreement with the RESRAD default value was selected.	NUREG/CR-6697, Table 3-1, p. 158) ANL 1993 (Section 45)
Livestock water intake for milk	LW15	160	**60**	L/day	No site-specific value was available. NUREG/CR-5512 Vol 4 Table 3, milk cow water intake of 60 L/day was used.	NUREG/CR-5512, Vol 4 Table 3 ANL 1993 (Section 45)
Livestock intake of soil	LS1	0.5	**0.02**	kg/day	No site-specific value was available. NUREG/CR-5512 Vol 4 Table 3, milk cow soil intake of 0.02 kg/day was used.	NUREG/CR-5512, Vol 4 Table 3
Mass loading for foliar deposition	MLFD	0.0001	0.0001	g/m^3	No site-specific value was available. NUREG/CR-6697 provides a range of values (1E-7 to 7E-4 g/m^3); however, a specific justification for selecting a particular value within the range provided could not be	NUREG/CR-6697, Table 3-1, p. 158)

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Parameter	**Code**	**Default Value**	**User Input Value**	**Units**	**Comments**	**Reference**
					identified. Therefore, the default value was selected.	
Depth of soil mixing layer	DM	0.15	0.15	m	No site-specific value was available. NUREG/CR-6697 provides a range of values (0.075 to 0.3 m). The "base" or middle value (0.15 m) is in agreement with the RESRAD default value was selected.	NUREG/CR-6697, Table 3-1, p. 158) ANL 1993 (Section 35)
Depth of roots	DROOT	0.9	0.9	m	No site-specific value was available. NUREG/CR-6697 provides a range of values (0.3 to 3 m). The "base" or middle value (0.9 m) is in agreement with the RESRAD default value was selected.	NUREG/CR-6697, Table 3-1, p. 159) ANL 1993 (Section 37)
Groundwater fractional usage: Drinking water	FGWDW	1	1	unitless	No site-specific value was identified; the RESRAD and NRC parameter values are identical and were selected.	NUREG/CR-6697, Table 3-1, p. 3-7)
Groundwater fractional usage: Household water	FGWHH	1	**N/A**	unitless	Radon pathway not active	N/A
Groundwater fractional usage: Livestock water	FGWLW	1	1	unitless	No site-specific value was identified; the RESRAD and NRC parameter values are identical and were selected.	NUREG/CR-6697, Table 3-1, p. 3-7)
Groundwater fractional usage: Irrigation water	FGWIR	1	1	unitless	No site-specific value was identified; the RESRAD and NRC parameter values are identical and were selected.	NUREG/CR-6697, Table 3-1, p. 3-7)
PLANT TRANSPORT FACTORS						
Wet weight crop yield: non-leafy vegetables	YV(1)	0.7	**4**	kg/m^2	No site-specific value was available. NUREG/CR-5512 Vol 1 Table 6.14 value was selected.	NUREG/CR-6697, Table 3-1, p. 159)
Wet weight crop yield: leafy vegetables	YV(2)	1.5	**2**	kg/m^2	No site-specific value was available. NUREG/CR-5512 Vol 1 Table 6.14 value was selected.	NUREG/CR-6697, Table 3-1, p. 159)
Wet weight crop yield: fodder	YV(3)	1.1	**1.5**	kg/m^2	No site-specific value was available. NUREG/CR-5512 Vol 1 Table 6.14 value was selected.	NUREG/CR-6697, Table 3-1, p. 159)
Length of growing season: non-leafy vegetables	TE(1)	0.17	0.17	years	No site-specific value was available. NUREG/CR-6697 provides a range of values (0.085 to 0.4932 years); however, a specific justification for selecting a particular value within the range provided	NUREG/CR-6697, Table 3-1, p. 159)

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RESRAD Version 6.3					Parameter Justification	
Parameter	**Code**	**Default Value**	**User Input Value**	**Units**	**Comments**	**Reference**
					could not be identified. Therefore, the default value was selected.	
Length of growing season: leafy vegetables	TE(2)	0.25	0.25	years	No site-specific value was available. NUREG/CR-6697 provides a range of values (0.062 to 0.246 years); however, a specific justification for selecting a particular value within the range provided could not be identified. Therefore, the default value was selected.	NUREG/CR-6697, Table 3-1, p. 159)
Length of growing season: fodder	TE(3)	0.08	0.08	years	No site-specific value was available. NUREG/CR-6697 provides a range of values (0.04 to 0.16 years). The "base" or middle value (0.08) is in agreement with the RESRAD default value was selected.	NUREG/CR-6697, Table 3-1, p. 160)
Translocation factor: non-leafy vegetables	TIV(1)	0.1	0.1	unitless	No site-specific value was available. NUREG/CR-6697 provides a range of values (0.06 to 0.2). The "base" or middle value (0.1) is in agreement with the RESRAD default value was selected.	NUREG/CR-6697, Table 3-1, p. 160)
Translocation factor: leafy vegetables	TIV(2)	1	1	unitless	No site-specific value was available. NUREG/CR-6697 provides a range of values (0.5 to 1). The maximum value (1) is in agreement with the RESRAD default value was selected.	NUREG/CR-6697, Table 3-1, p. 160)
Translocation factor: fodder	TIV(3)	1	1	unitless	No site-specific value was available. NUREG/CR-6697 provides a range of values (0.5 to 1). The maximum value (1) is in agreement with the RESRAD default value was selected.	NUREG/CR-6697, Table 3-1, p. 160)
Weathering removal constant	WLAM	20	20	y^{-1}	No site-specific value was available. NUREG/CR-6697 provides a range of values (10 to 40). The "base" or middle value (20) is in agreement with the RESRAD default value was selected.	NUREG/CR-6697, Table 3-1, p. 160)
Wet foliar interception fraction: non-leafy vegetables	RWET(1)	0.25	0.25	unitless	No site-specific value was available. NUREG/CR-6697 provides a range of values; however, a specific justification for selecting a particular value within the range provided could not be identified. Therefore, the default value was selected.	NUREG/CR-6697, Table 3-1, p. 160)
Wet foliar interception fraction: leafy vegetables	RWET(2)	0.25	0.25	unitless	No site-specific value was available. NUREG/CR-6697 provides a range of values; however, a specific justification for selecting a particular value within the range provided could not be identified. Therefore, the default value was selected.	NUREG/CR-6697, Table 3-1, p. 161)
Wet foliar interception fraction: fodder	RWET(3)	0.25	0.25	unitless	No site-specific value was available. NUREG/CR-6697 provides a range of values; however, a specific justification for selecting a particular value within the range provided could not be identified. Therefore, the default value was selected.	NUREG/CR-6697, Table 3-1, p. 161)

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DEFAULT AND RECOMMENDED VALUES FOR RESRAD INPUT PARAMETERS

RESRAD Version 6.3					Parameter Justification	
Parameter	**Code**	**Default Value**	**User Input Value**	**Units**	**Comments**	**Reference**
Dry foliar interception fraction: non-leafy vegetables	RDRY(1)	0.25	0.25	unitless	No site-specific value was available. NUREG/CR-6697 provides a range of values; however, a specific justification for selecting a particular value within the range provided could not be identified. Therefore, the default value was selected.	NUREG/CR-6697, Table 3-1, p. 160)
Dry foliar interception fraction: leafy vegetables	RDRY(2)	0.25	0.25	unitless	No site-specific value was available. NUREG/CR-6697 provides a range of values; however, a specific justification for selecting a particular value within the range provided could not be identified. Therefore, the default value was selected.	NUREG/CR-6697, Table 3-1, p. 160)
Dry foliar interception fraction: fodder	RDRY(3)	0.25	0.25	unitless	No site-specific value was available. NUREG/CR-6697 provides a range of values; however, a specific justification for selecting a particular value within the range provided could not be identified. Therefore, the default value was selected.	NUREG/CR-6697, Table 3-1, p. 160)
STORAGE TIMES BEFORE USE						
Fruits, non-leafy vegetables and grain	STOR_T(1)	14	14	days	No site-specific value was identified; the RESRAD and NRC parameter values are identical and were selected.	NUREG/CR-6697, Table 3-1, p. 3-7)
Leafy vegetables	STOR_T(2)	1	1	days	No site-specific value was identified; the RESRAD and NRC parameter values are identical and were selected.	NUREG/CR-6697, Table 3-1, p. 3-7)
Milk	STOR_T(3)	1	1	days	No site-specific value was identified; the RESRAD and NRC parameter values are identical and were selected.	NUREG/CR-6697, Table 3-1, p. 3-7)
Meat	STOR_T(4)	20	20	days	No site-specific value was identified; the RESRAD and NRC parameter values are identical and were selected.	NUREG/CR-6697, Table 3-1, p. 3-7)
Fish	STOR_T(5)	7	7	days	No site-specific value was identified; the RESRAD and NRC parameter values are identical and were selected.	NUREG/CR-6697, Table 3-1, p. 3-7)
Crustacea and mollusks	STOR_T(6)	7	7	days	No site-specific value was identified; the RESRAD and NRC parameter values are identical and were selected.	NUREG/CR-6697, Table 3-1, p. 3-7)
Well water	STOR_T(7)	1	1	days	No site-specific value was identified; the RESRAD and NRC parameter values are identical and were selected.	NUREG/CR-6697, Table 3-1, p. 3-7)
Surface water	STOR_T(8)	1	1	days	No site-specific value was identified; the RESRAD and NRC parameter values are identical and were selected.	NUREG/CR-6697, Table 3-1, p. 3-7)
Livestock fodder	STOR_T(9)	45	45	days	No site-specific value was identified; the RESRAD and NRC parameter values are identical and were selected.	NUREG/CR-6697, Table 3-1, p. 3-7)