

Appendix H12 –  
RESRAD-Offsite 3.1 Output for Area 3.1 Am

## Appendix H12: RESRAD-Offsite 3.1 Output for Area 3.1 Am-241

RESRAD-OFFSITE, Version 3.1      T<sub>1/2</sub> Limit = 30 days      05/04/2016 13:17 Page 1  
Parent Dose Report  
Title : RESRAD-OFFSITE Default Parameters  
File : AREA 3.1 FARMER AM.ROF

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## Dose Conversion Factor (and Related) Parameter Summary

Current Library: FGR 12

Default Library: FGR 12

Menu	Parameter	Current Value	Default	Parameter Name
DCSF	DCF's for external ground radiation, (mrem/yr)/(pCi/g)			
DCSF	Ac-225 (Source: FGR 12)	6.371E-02	6.371E-02	DCFEXT( 1)
DCSF	Am-241 (Source: FGR 12)	4.372E-02	4.372E-02	DCFEXT( 2)
DCSF	At-217 (Source: FGR 12)	1.773E-03	1.773E-03	DCFEXT( 3)
DCSF	Ba-137m (Source: FGR 12)	3.606E+00	3.606E+00	DCFEXT( 4)
DCSF	Bi-213 (Source: FGR 12)	7.660E-01	7.660E-01	DCFEXT( 5)
DCSF	Cs-137 (Source: FGR 12)	7.510E-04	7.510E-04	DCFEXT( 6)
DCSF	Fr-221 (Source: FGR 12)	1.536E-01	1.536E-01	DCFEXT( 7)
DCSF	Np-237 (Source: FGR 12)	7.790E-02	7.790E-02	DCFEXT( 8)
DCSF	Pa-233 (Source: FGR 12)	1.020E+00	1.020E+00	DCFEXT( 9)
DCSF	Pb-209 (Source: FGR 12)	7.734E-04	7.734E-04	DCFEXT( 10)
DCSF	Po-213 (Source: FGR 12)	0.000E+00	0.000E+00	DCFEXT( 11)
DCSF	Ra-225 (Source: FGR 12)	1.102E-02	1.102E-02	DCFEXT( 12)
DCSF	Sr-90 (Source: FGR 12)	7.043E-04	7.043E-04	DCFEXT( 13)
DCSF	Th-229 (Source: FGR 12)	3.213E-01	3.213E-01	DCFEXT( 14)
DCSF	Tl-209 (Source: FGR 12)	1.293E+01	1.293E+01	DCFEXT( 15)
DCSF	U-233 (Source: FGR 12)	1.397E-03	1.397E-03	DCFEXT( 16)
DCSF	Y-90 (Source: FGR 12)	2.391E-02	2.391E-02	DCFEXT( 17)

Current Library: FGR 11

Default Library: FGR 11

Menu	Parameter	Current Value	Default	Parameter Name
DCSF	Dose conversion factors for inhalation, mrem/pCi:			
DCSF	Am-241	4.440E-01	4.440E-01	DCF2(1)
DCSF	Cs-137+D	3.190E-05	3.190E-05	DCF2(2)
DCSF	Np-237+D	5.400E-01	5.400E-01	DCF2(3)
DCSF	Sr-90+D	1.308E-03	1.308E-03	DCF2(4)
DCSF	Th-229+D	2.169E+00	2.169E+00	DCF2(5)
DCSF	U-233	1.350E-01	1.350E-01	DCF2(6)
DCSF	Dose conversion factors for ingestion, mrem/pCi:			
DCSF	Am-241	3.640E-03	3.640E-03	DCF3(1)
DCSF	Cs-137+D	5.000E-05	5.000E-05	DCF3(2)
DCSF	Np-237+D	4.444E-03	4.444E-03	DCF3(3)
DCSF	Sr-90+D	1.528E-04	1.528E-04	DCF3(4)
DCSF	Th-229+D	4.027E-03	4.027E-03	DCF3(5)
DCSF	U-233	2.890E-04	2.890E-04	DCF3(6)

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 Title : RESRAD-OFFSITE Default Parameters  
 File : AREA 3.1 FARMER AM.ROF

Dose Conversion Factor (and Related) Parameter Summary (continued)  
 Current Library: RESRAD Default Transfer factors  
 Default Library: RESRAD Default Transfer factors

Menu	Parameter	Current Value	Default	Parameter Name
TF	Soil to plant transfer factors:			
TF	Am-241 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF(1,1)
TF	Am-241 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF(1,2)
TF	Am-241 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF(1,3)
TF	Am-241 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF(1,4)
TF				
TF	Cs-137+D , plant/soil concentration ratio, dimensionless	4.000E-02	4.000E-02	RTF(2,1)
TF	Cs-137+D , plant/soil concentration ratio, dimensionless	4.000E-02	4.000E-02	RTF(2,2)
TF	Cs-137+D , plant/soil concentration ratio, dimensionless	4.000E-02	4.000E-02	RTF(2,3)
TF	Cs-137+D , plant/soil concentration ratio, dimensionless	4.000E-02	4.000E-02	RTF(2,4)
TF				
TF	Np-237+D , plant/soil concentration ratio, dimensionless	2.000E-02	2.000E-02	RTF(3,1)
TF	Np-237+D , plant/soil concentration ratio, dimensionless	2.000E-02	2.000E-02	RTF(3,2)
TF	Np-237+D , plant/soil concentration ratio, dimensionless	2.000E-02	2.000E-02	RTF(3,3)
TF	Np-237+D , plant/soil concentration ratio, dimensionless	2.000E-02	2.000E-02	RTF(3,4)
TF				
TF	Sr-90+D , plant/soil concentration ratio, dimensionless	3.000E-01	3.000E-01	RTF(4,1)
TF	Sr-90+D , plant/soil concentration ratio, dimensionless	3.000E-01	3.000E-01	RTF(4,2)
TF	Sr-90+D , plant/soil concentration ratio, dimensionless	3.000E-01	3.000E-01	RTF(4,3)
TF	Sr-90+D , plant/soil concentration ratio, dimensionless	3.000E-01	3.000E-01	RTF(4,4)
TF				
TF	Th-229+D , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF(5,1)
TF	Th-229+D , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF(5,2)
TF	Th-229+D , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF(5,3)
TF	Th-229+D , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF(5,4)
TF				
TF	U-233 , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF(6,1)
TF	U-233 , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF(6,2)
TF	U-233 , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF(6,3)
TF	U-233 , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF(6,4)
TF				
TF	intake to meat/milk transfer factors:			
TF	Am-241 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	5.000E-05	5.000E-05	I_M(1,1)
TF	Am-241 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-06	2.000E-06	I_M(1,2)
TF				
TF	Cs-137+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.000E-02	3.000E-02	I_M(2,1)
TF	Cs-137+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	8.000E-03	8.000E-03	I_M(2,2)
TF				
TF	Np-237+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-03	1.000E-03	I_M(3,1)
TF	Np-237+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06	5.000E-06	I_M(3,2)
TF				
TF	Sr-90+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	8.000E-03	8.000E-03	I_M(4,1)
TF	Sr-90+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-03	2.000E-03	I_M(4,2)
TF				

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Dose Conversion Factor (and Related) Parameter Summary (continued)  
 Current Library: RESRAD Default Transfer factors  
 Default Library: RESRAD Default Transfer factors

Menu	Parameter	Current Value	Default	Parameter Name
TF	Th-229+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	I_M(5,1)
TF	Th-229+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06	5.000E-06	I_M(5,2)
TF				
TF	U-233 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	I_M(6,1)
TF	U-233 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	I_M(6,2)
TF				
TF	Bioaccumulation factors, fresh water, L/kg:			
TF	Am-241 , fish	3.000E+01	3.000E+01	BIOFA(1,1)
TF	Am-241 , crustacea and mollusks	1.000E+03	1.000E+03	BIOFA(1,2)
TF				
TF	Cs-137+D , fish	2.000E+03	2.000E+03	BIOFA(2,1)
TF	Cs-137+D , crustacea and mollusks	1.000E+02	1.000E+02	BIOFA(2,2)
TF				
TF	Np-237+D , fish	3.000E+01	3.000E+01	BIOFA(3,1)
TF	Np-237+D , crustacea and mollusks	4.000E+02	4.000E+02	BIOFA(3,2)
TF				
TF	Sr-90+D , fish	6.000E+01	6.000E+01	BIOFA(4,1)
TF	Sr-90+D , crustacea and mollusks	1.000E+02	1.000E+02	BIOFA(4,2)
TF				
TF	Th-229+D , fish	1.000E+02	1.000E+02	BIOFA(5,1)
TF	Th-229+D , crustacea and mollusks	5.000E+02	5.000E+02	BIOFA(5,2)
TF				
TF	U-233 , fish	1.000E+01	1.000E+01	BIOFA(6,1)
TF	U-233 , crustacea and mollusks	6.000E+01	6.000E+01	BIOFA(6,2)

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## Site-Specific Parameter Summary

Menu	Parameter	User Input	Default	RESRAD computed	Parameter Name
FSTI	Exposure duration	1.000E+00	3.000E+01	---	ED
FSTI	Basic radiation dose limit (mrem/yr)	2.500E+01	2.500E+01	---	BRDL
CONC	Initial principal radionuclide (pCi/g): Am-241	1.091E+00	0.000E+00	---	S1(1)
CONC	Initial principal radionuclide (pCi/g): Cs-137	1.016E+00	0.000E+00	---	S1(2)
CONC	Initial principal radionuclide (pCi/g): Sr-90	5.620E-01	0.000E+00	---	S1(4)
VDEP	Deposition velocity for Am-241	1.000E-03	1.000E-03	---	DEPVEL(1)
VDEP	Deposition velocity for Cs-137	1.000E-03	1.000E-03	---	DEPVEL(2)
VDEP	Deposition velocity for Np-237	1.000E-03	1.000E-03	---	DEPVEL(3)
VDEP	Deposition velocity for Sr-90	1.000E-03	1.000E-03	---	DEPVEL(4)
VDEP	Deposition velocity for Th-229	1.000E-03	1.000E-03	---	DEPVEL(5)
VDEP	Deposition velocity for U-233	1.000E-03	1.000E-03	---	DEPVEL(6)
DCLR	Distribution coefficients for Am-241				
DCLR	Contaminated zone (cm**3/g)	1.900E+03	2.000E+01	---	DCNUCC(1)
DCLR	Unsaturated zone 1 (cm**3/g)	1.900E+03	2.000E+01	---	DCNUCU(1,1)
DCLR	Saturated zone (cm**3/g)	1.900E+03	2.000E+01	---	DCNUCS(1)
DCLR	Sediment in surface water body (cm**3/g)	4.000E+03	2.000E+01	---	DCNUCSWB(1)
DCLR	Agricultural area 1 (cm**3/g)	1.900E+03	2.000E+01	---	DCNUCOF(1,1)
DCLR	Agricultural area 2 (cm**3/g)	1.900E+03	2.000E+01	---	DCNUCOF(1,2)
DCLR	Agricultural area 3 (cm**3/g)	1.900E+03	2.000E+01	---	DCNUCOF(1,3)
DCLR	Agricultural area 4 (cm**3/g)	1.900E+03	2.000E+01	---	DCNUCOF(1,4)
DCLR	Offsite Dwelling (cm**3/g)	1.900E+03	2.000E+01	---	DCNUCDWE(1)
DCLR	Initial Leach rate (/yr) Am-241	0.000E+00	0.000E+00	7.862E-05	ALEACH(1)
DCLR	Distribution coefficients for Cs-137				
DCLR	Contaminated zone (cm**3/g)	2.800E+02	4.600E+03	---	DCNUCC(2)
DCLR	Unsaturated zone 1 (cm**3/g)	2.800E+02	4.600E+03	---	DCNUCU(2,1)
DCLR	Saturated zone (cm**3/g)	2.800E+02	4.600E+03	---	DCNUCS(2)
DCLR	Sediment in surface water body (cm**3/g)	4.800E+02	4.600E+03	---	DCNUCSWB(2)
DCLR	Agricultural area 1 (cm**3/g)	2.800E+02	4.600E+03	---	DCNUCOF(2,1)
DCLR	Agricultural area 2 (cm**3/g)	2.800E+02	4.600E+03	---	DCNUCOF(2,2)
DCLR	Agricultural area 3 (cm**3/g)	2.800E+02	4.600E+03	---	DCNUCOF(2,3)
DCLR	Agricultural area 4 (cm**3/g)	2.800E+02	4.600E+03	---	DCNUCOF(2,4)
DCLR	Offsite Dwelling (cm**3/g)	2.800E+02	4.600E+03	---	DCNUCDWE(2)
DCLR	Initial Leach rate (/yr) Cs-137	0.000E+00	0.000E+00	5.333E-04	ALEACH(2)

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## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	RESRAD computed	Parameter Name
DCLR	Distribution coefficients for Sr-90				
DCLR	Contaminated zone (cm**3/g)	5.000E+00	3.000E+01	---	DCNUCC(4)
DCLR	Unsaturated zone 1 (cm**3/g)	5.000E+00	3.000E+01	---	DCNUCU(4,1)
DCLR	Saturated zone (cm**3/g)	5.000E+00	3.000E+01	---	DCNUCS(4)
DCLR	Sediment in surface water body (cm**3/g)	1.500E+01	3.000E+01	---	DCNUCSWB(4)
DCLR	Agricultural area 1 (cm**3/g)	5.000E+00	3.000E+01	---	DCNUCOF(4,1)
DCLR	Agricultural area 2 (cm**3/g)	5.000E+00	3.000E+01	---	DCNUCOF(4,2)
DCLR	Agricultural area 3 (cm**3/g)	5.000E+00	3.000E+01	---	DCNUCOF(4,3)
DCLR	Agricultural area 4 (cm**3/g)	5.000E+00	3.000E+01	---	DCNUCOF(4,4)
DCLR	Offsite Dwelling (cm**3/g)	5.000E+00	3.000E+01	---	DCNUCDWE(4)
DCLR	Initial Leach rate (/yr) Sr-90	0.000E+00	0.000E+00	2.919E-02	ALEACH(4)
DCLR	Distribution coefficients for progeny Np-237				
DCLR	Contaminated zone (cm**3/g)	2.300E+00	2.570E+02	---	DCNUCC(3)
DCLR	Unsaturated zone 1 (cm**3/g)	2.300E+00	2.570E+02	---	DCNUCU(3,1)
DCLR	Saturated zone (cm**3/g)	2.300E+00	2.570E+02	---	DCNUCS(3)
DCLR	Sediment in surface water body (cm**3/g)	3.000E+00	2.570E+02	---	DCNUCSWB(3)
DCLR	Agricultural area 1 (cm**3/g)	2.300E+00	2.570E+02	---	DCNUCOF(3,1)
DCLR	Agricultural area 2 (cm**3/g)	2.300E+00	2.570E+02	---	DCNUCOF(3,2)
DCLR	Agricultural area 3 (cm**3/g)	2.300E+00	2.570E+02	---	DCNUCOF(3,3)
DCLR	Agricultural area 4 (cm**3/g)	2.300E+00	2.570E+02	---	DCNUCOF(3,4)
DCLR	Offsite Dwelling (cm**3/g)	2.300E+00	2.570E+02	---	DCNUCDWE(3)
DCLR	Initial Leach rate (/yr) Np-237	0.000E+00	0.000E+00	6.179E-02	ALEACH(3)
DCLR	Distribution coefficients for progeny Th-229				
DCLR	Contaminated zone (cm**3/g)	5.890E+03	6.000E+04	---	DCNUCC(5)
DCLR	Unsaturated zone 1 (cm**3/g)	5.890E+03	6.000E+04	---	DCNUCU(5,1)
DCLR	Saturated zone (cm**3/g)	5.890E+03	6.000E+04	---	DCNUCS(5)
DCLR	Sediment in surface water body (cm**3/g)	5.890E+03	6.000E+04	---	DCNUCSWB(5)
DCLR	Agricultural area 1 (cm**3/g)	5.890E+03	6.000E+04	---	DCNUCOF(5,1)
DCLR	Agricultural area 2 (cm**3/g)	5.890E+03	6.000E+04	---	DCNUCOF(5,2)
DCLR	Agricultural area 3 (cm**3/g)	5.890E+03	6.000E+04	---	DCNUCOF(5,3)
DCLR	Agricultural area 4 (cm**3/g)	5.890E+03	6.000E+04	---	DCNUCOF(5,4)
DCLR	Offsite Dwelling (cm**3/g)	5.890E+03	6.000E+04	---	DCNUCDWE(5)
DCLR	Initial Leach rate (/yr) Th-229	0.000E+00	0.000E+00	2.536E-05	ALEACH(5)
DCLR	Distribution coefficients for progeny U-233				
DCLR	Contaminated zone (cm**3/g)	3.500E+01	5.000E+01	---	DCNUCC(6)
DCLR	Unsaturated zone 1 (cm**3/g)	3.500E+01	5.000E+01	---	DCNUCU(6,1)
DCLR	Saturated zone (cm**3/g)	3.500E+01	5.000E+01	---	DCNUCS(6)
DCLR	Sediment in surface water body (cm**3/g)	1.000E+01	5.000E+01	---	DCNUCSWB(6)
DCLR	Agricultural area 1 (cm**3/g)	3.500E+01	5.000E+01	---	DCNUCOF(6,1)
DCLR	Agricultural area 2 (cm**3/g)	3.500E+01	5.000E+01	---	DCNUCOF(6,2)
DCLR	Agricultural area 3 (cm**3/g)	3.500E+01	5.000E+01	---	DCNUCOF(6,3)
DCLR	Agricultural area 4 (cm**3/g)	3.500E+01	5.000E+01	---	DCNUCOF(6,4)
DCLR	Offsite Dwelling (cm**3/g)	3.500E+01	5.000E+01	---	DCNUCDWE(6)
DCLR	Initial Leach rate (/yr) U-233	0.000E+00	0.000E+00	4.254E-03	ALEACH(6)

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 Parent Dose Report  
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## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	RESRAD computed	Parameter Name
LYOT	Bearing of X axis (clockwise angle N-->X in degrees)	9.000E+01	9.000E+01	---	DNXBearing
LYOT	Length of Primary contamination in X Direction	2.540E+02	1.000E+02	---	SOURCEXY (1)
LYOT	Length of Primary contamination in Y Direction	2.540E+02	1.000E+02	---	SOURCEXY (2)
LYOT	Smaller X coordinate of Agricultural Area 1	0.000E+00	3.438E+01	---	AGRIXY (1,1)
LYOT	Larger X coordinate of Agricultural Area 1	1.000E+00	6.563E+01	---	AGRIXY (2,1)
LYOT	Smaller Y coordinate of Agricultural Area 1	0.000E+00	2.340E+02	---	AGRIXY (3,1)
LYOT	Larger Y coordinate of Agricultural Area 1	1.000E+00	2.660E+02	---	AGRIXY (4,1)
LYOT	Smaller X coordinate of Agricultural Area 2	0.000E+00	3.438E+01	---	AGRIXY (1,2)
LYOT	Larger X coordinate of Agricultural Area 2	1.000E+00	6.563E+01	---	AGRIXY (2,2)
LYOT	Smaller Y coordinate of Agricultural Area 2	0.000E+00	2.680E+02	---	AGRIXY (3,2)
LYOT	Larger Y coordinate of Agricultural Area 2	1.000E+00	3.000E+02	---	AGRIXY (4,2)
LYOT	Smaller X coordinate of Agricultural Area 3	4.840E+02	0.000E+00	---	AGRIXY (1,3)
LYOT	Larger X coordinate of Agricultural Area 3	5.990E+02	1.000E+02	---	AGRIXY (2,3)
LYOT	Smaller Y coordinate of Agricultural Area 3	8.100E+01	4.500E+02	---	AGRIXY (3,3)
LYOT	Larger Y coordinate of Agricultural Area 3	1.490E+02	5.500E+02	---	AGRIXY (4,3)
LYOT	Smaller X coordinate of Agricultural Area 4	0.000E+00	0.000E+00	---	AGRIXY (1,4)
LYOT	Larger X coordinate of Agricultural Area 4	2.540E+02	1.000E+02	---	AGRIXY (2,4)
LYOT	Smaller Y coordinate of Agricultural Area 4	0.000E+00	3.000E+02	---	AGRIXY (3,4)
LYOT	Larger Y coordinate of Agricultural Area 4	2.540E+02	4.000E+02	---	AGRIXY (4,4)
LYOT	Smaller X coordinate of Dwelling Area	5.480E+02	3.438E+01	---	DWELLXY (1)
LYOT	Larger X coordinate of Dwelling Area	5.950E+02	6.563E+01	---	DWELLXY (2)
LYOT	Smaller Y coordinate of Dwelling Area	-4.600E+01	1.340E+02	---	DWELLXY (3)
LYOT	Larger Y coordinate of Dwelling Area	4.700E+01	1.650E+02	---	DWELLXY (4)
LYOT	Smaller X coordinate of Surface water body	3.100E+02	-1.000E+02	---	SWXY (1)
LYOT	Larger X coordinate of Surface water body	3.600E+02	2.000E+02	---	SWXY (2)
LYOT	Smaller Y coordinate of Surface water body	0.000E+00	5.500E+02	---	SWXY (3)
LYOT	Larger Y coordinate of Surface water body	2.540E+02	8.500E+02	---	SWXY (4)
STOR	Storage times of contaminated foodstuffs (days):				
STOR	Surface water	1.000E+00	1.000E+00	---	STOR_T (1)
STOR	Well water	1.000E+00	1.000E+00	---	STOR_T (2)
STOR	Fruits, non-leafy vegetables, and grain	1.400E+01	1.400E+01	---	STOR_T (3)
STOR	Leafy vegetables	1.000E+00	1.000E+00	---	STOR_T (4)
STOR	Livestock feed - pasture or silage	1.000E+00	1.000E+00	---	STOR_T (5)
STOR	Livestock feed - grain	4.500E+01	4.500E+01	---	STOR_T (6)
STOR	Meat and poultry	2.000E+01	2.000E+01	---	STOR_T (7)
STOR	Milk	1.000E+00	1.000E+00	---	STOR_T (8)
STOR	Fish	7.000E+00	7.000E+00	---	STOR_T (9)
STOR	Crustacea and mollusks	7.000E+00	7.000E+00	---	STOR_T (10)
TIME	Times at which dose/risk are to be reported (yr)	1.000E+00	1.000E+00	---	T (2)
TIME	Times at which dose/risk are to be reported (yr)	3.000E+00	3.000E+00	---	T (3)
TIME	Times at which dose/risk are to be reported (yr)	6.000E+00	6.000E+00	---	T (4)
TIME	Times at which dose/risk are to be reported (yr)	1.200E+01	1.200E+01	---	T (5)
TIME	Times at which dose/risk are to be reported (yr)	3.000E+01	3.000E+01	---	T (6)
TIME	Times at which dose/risk are to be reported (yr)	7.500E+01	7.500E+01	---	T (7)
TIME	Times at which dose/risk are to be reported (yr)	1.750E+02	1.750E+02	---	T (8)

# Appendix H12: RESRAD-Offsite 3.1 Output for Area 3.1 Am-241

RESRAD-OFFSITE, Version 3.1      T<sub>1/2</sub> Limit = 30 days      05/04/2016 13:17 Page 8  
 Parent Dose Report  
 Title : RESRAD-OFFSITE Default Parameters  
 File : AREA 3.1 FARMER AM.ROF

## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	RESRAD computed	Parameter Name
TIME	Times at which dose/risk are to be reported (yr)	4.200E+02	4.200E+02	---	T(9)
TIME	Times at which dose/risk are to be reported (yr)	9.700E+02	9.700E+02	---	T(10)
SITE	Precipitation (m/yr)	1.160E+00	1.000E+00	---	PRECIP
SITE	Average annual wind speed (m/sec)	2.278E+00	2.000E+00	---	WIND
PRCZ	Area of primary contamination (m <sup>2</sup> )	6.452E+04	1.000E+04	---	AREA
PRCZ	Length parallel to aquifer flow (m)	1.650E+02	1.000E+02	---	LCZPAQ
PRCZ	Depth of soil mixing layer (m)	1.500E-01	1.500E-01	---	DM
PRCZ	Deposition velocity of dust (m)	1.000E-03	1.000E-03	---	DEPVEL_DUST
PRCZ	Irrigation (m/yr)	4.700E-01	2.000E-01	---	RI
PRCZ	Evapotranspiration coefficient	7.800E-01	5.000E-01	---	EVAPTR
PRCZ	Runoff coefficient	4.100E-01	2.000E-01	---	RUNOFF
PRCZ	Rainfall Erosion Index	1.600E+02	1.600E+02	---	RAINEROS
PRCZ	Slope-length-steepness factor of prim. contamination	4.000E-01	4.000E-01	---	SLPLENSTPPC
PRCZ	Cropping-management factor of primary contamination	3.000E-03	3.000E-03	---	CRPMANGPC
PRCZ	Conservation practice factor of prim. contamination	1.000E+00	1.000E+00	---	CONVPACPC
PRCZ	Thickness of contaminated zone (m)	1.000E+00	2.000E+00	---	THICKO
PRCZ	Contaminated zone total porosity	3.600E-01	4.000E-01	---	TPCZ
PRCZ	Computed erosion rate of contaminated zone (m/yr)	0.000E+00	1.147E-05	---	VCZ
PRCZ	Density of contaminated zone (g/cm <sup>3</sup> )	1.700E+00	1.500E+00	---	DENSCZ
PRCZ	Soil erodibility factor of contaminated zone	0.000E+00	4.000E-01	---	ERODIBILITYCZ
PRCZ	Contaminated zone field capacity	2.000E-01	3.000E-01	---	FCCZ
PRCZ	Contaminated zone b parameter	1.400E+00	5.300E+00	---	BCZ
PRCZ	Contaminated zone hydraulic conductivity (m/yr)	1.400E+02	1.000E+01	---	HCCZ
PRCZ	Contaminated zone effective porosity	2.500E-01	4.000E-01	---	EPCZ
PRCZ	longitudinal dispersivity of prime contamination (m)	5.000E-02	5.000E-02	---	ALPHALCZ
PRCZ	Cover depth (m)	not used	0.000E+00	---	COVERO
PRCZ	Total porosity of the cover material	not used	4.000E-01	---	TPCV
PRCZ	Computed erosion rate of cover material (m/yr)	not used	1.147E-05	---	VCV
PRCZ	Density of cover material (g/cm <sup>3</sup> )	not used	1.500E+00	---	DENSCV
PRCZ	Soil erodibility factor of cover	4.000E-01	4.000E-01	---	ERODIBILITYCV
PRCZ	Volumetric water content of the cover material	not used	5.000E-02	---	PH2OCV
AGRI	Areal extent of Agricultural Area 1 (m <sup>2</sup> )	1.000E+00	1.000E+03	---	AREAO(1)
AGRI	Fraction of Agri. Area 1 directly over the c.z.	not used	0.000E+00	---	FAREA_PLANT(1)
AGRI	Evapotranspiration coefficient in Agri. Area 1	6.200E-01	5.000E-01	---	EVAPTRN(1)
AGRI	Runoff coefficient in Agricultural Area 1	4.100E-01	2.000E-01	---	RUNOF(1)
AGRI	Mixing depth/plow layer of Agricultural Area 1	1.500E-01	1.500E-01	---	DPTHMIXG(1)
AGRI	Water filled porosity of soil in Agri. Area 1	3.000E-01	3.000E-01	---	TMOF(1)
AGRI	Computed erosion rate of soil in Agri. Area 1	0.000E+00	1.147E-05	---	EROSN(1)
AGRI	Dry Bulk Density of soil in Agricultural Area 1	1.700E+00	1.500E+00	---	RHOB(1)
AGRI	Soil erodibility factor of Agricultural Area 1	0.000E+00	4.000E-01	---	ERODIBILITY(1)
AGRI	Slope-length-steepness factor, Agricultural Area 1	4.000E-01	4.000E-01	---	SLPLENSTP(1)
AGRI	Cropping-management factor of Agricultural Area 1	3.000E-03	3.000E-03	---	CRPMANG(1)
AGRI	Conservation practice factor of Agricultural Area 1	1.000E+00	1.000E+00	---	CONVPAC(1)
AGRI	Total porosity of soil in Agri. Area 1	not used	4.000E-01	---	TPOF(1)

# Appendix H12: RESRAD-Offsite 3.1 Output for Area 3.1 Am-241

RESRAD-OFFSITE, Version 3.1      TM Limit = 30 days      05/04/2016 13:17 Page 9  
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 Title : RESRAD-OFFSITE Default Parameters  
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## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	RESRAD computed	Parameter Name
AGRI	Areal extent of Agricultural Area 2 (m**2)	1.000E+00	1.000E+03	---	AREAO(2)
AGRI	Fraction of Agri. Area 2 directly over the c.z.	not used	0.000E+00	---	FAREA_PLANT(2)
AGRI	Evapotranspiration coefficient in Agri. Area 2	6.200E-01	5.000E-01	---	EVAPTRN(2)
AGRI	Runoff coefficient in Agricultural Area 2	4.100E-01	2.000E-01	---	RUNOF(2)
AGRI	Mixing depth/plow layer of Agricultural Area 2	1.500E-01	1.500E-01	---	DPTHMIXG(2)
AGRI	Water filled porosity of soil in Agri. Area 2	3.000E-01	3.000E-01	---	TMOF(2)
AGRI	Computed erosion rate of soil in Agri. Area 2	0.000E+00	1.147E-05	---	EROSN(2)
AGRI	Dry Bulk Density of soil in Agricultural Area 2	1.700E+00	1.500E+00	---	RHOB(2)
AGRI	Soil erodibility factor of Agricultural Area 2	0.000E+00	4.000E-01	---	ERODIBILITY(2)
AGRI	Slope-length-steepness factor, Agricultural Area 2	4.000E-01	4.000E-01	---	SLPLENSTP(2)
AGRI	Cropping-management factor of Agricultural Area 2	3.000E-03	3.000E-03	---	CRPMANG(2)
AGRI	Conservation practice factor of Agricultural Area 2	1.000E+00	1.000E+00	---	CONVPRAC(2)
AGRI	Total porosity of soil in Agri. Area 2	not used	4.000E-01	---	TPOF(2)
AGRI	Areal extent of Agricultural Area 3 (m**2)	7.820E+03	1.000E+04	---	AREAO(3)
AGRI	Fraction of Agri. Area 3 directly over the c.z.	0.000E+00	0.000E+00	---	FAREA_PLANT(3)
AGRI	Evapotranspiration coefficient in Agri. Area 3	6.200E-01	5.000E-01	---	EVAPTRN(3)
AGRI	Runoff coefficient in Agricultural Area 3	4.100E-01	2.000E-01	---	RUNOF(3)
AGRI	Mixing depth/plow layer of Agricultural Area 3	1.500E-01	1.500E-01	---	DPTHMIXG(3)
AGRI	Water filled porosity of soil in Agri. Area 3	3.000E-01	3.000E-01	---	TMOF(3)
AGRI	Computed erosion rate of soil in Agri. Area 3	0.000E+00	1.147E-05	---	EROSN(3)
AGRI	Dry Bulk Density of soil in Agricultural Area 3	1.700E+00	1.500E+00	---	RHOB(3)
AGRI	Soil erodibility factor of Agricultural Area 3	0.000E+00	4.000E-01	---	ERODIBILITY(3)
AGRI	Slope-length-steepness factor, Agricultural Area 3	4.000E-01	4.000E-01	---	SLPLENSTP(3)
AGRI	Cropping-management factor of Agricultural Area 3	3.000E-03	3.000E-03	---	CRPMANG(3)
AGRI	Conservation practice factor of Agricultural Area 3	1.000E+00	1.000E+00	---	CONVPRAC(3)
AGRI	Total porosity of soil in Agri. Area 3	not used	4.000E-01	---	TPOF(3)
AGRI	Areal extent of Agricultural Area 4 (m**2)	6.452E+04	1.000E+04	---	AREAO(4)
AGRI	Fraction of Agri. Area 4 directly over the c.z.	1.000E+00	0.000E+00	---	FAREA_PLANT(4)
AGRI	Evapotranspiration coefficient in Agri. Area 4	7.800E-01	5.000E-01	---	EVAPTRN(4)
AGRI	Runoff coefficient in Agricultural Area 4	4.100E-01	2.000E-01	---	RUNOF(4)
AGRI	Mixing depth/plow layer of Agricultural Area 4	1.500E-01	1.500E-01	---	DPTHMIXG(4)
AGRI	Water filled porosity of soil in Agri. Area 4	3.000E-01	3.000E-01	---	TMOF(4)
AGRI	Computed erosion rate of soil in Agri. Area 4	0.000E+00	1.147E-05	---	EROSN(4)
AGRI	Dry Bulk Density of soil in Agricultural Area 4	1.700E+00	1.500E+00	---	RHOB(4)
AGRI	Soil erodibility factor of Agricultural Area 4	0.000E+00	4.000E-01	---	ERODIBILITY(4)
AGRI	Slope-length-steepness factor, Agricultural Area 4	4.000E-01	4.000E-01	---	SLPLENSTP(4)
AGRI	Cropping-management factor of Agricultural Area 4	3.000E-03	3.000E-03	---	CRPMANG(4)
AGRI	Conservation practice factor of Agricultural Area 4	1.000E+00	1.000E+00	---	CONVPRAC(4)
AGRI	Total porosity of soil in Agri. Area 4	not used	4.000E-01	---	TPOF(4)
DWEL	Areal extent of Offsite dwelling site (m**2)	4.371E+03	1.000E+03	---	AREAODWELL
DWEL	Evapotranspiration coefficient in dwelling (Off) site	6.200E-01	5.000E-01	---	EVAPTRNDWELL
DWEL	Runoff coefficient in Offsite dwelling site	4.100E-01	2.000E-01	---	RUNOFDWELL
DWEL	Mixing depth of Offsite dwelling site	1.500E-01	1.500E-01	---	DPTHMIXGDWELL
DWEL	Water filled porosity of soil in Offsite Dwelling	3.000E-01	3.000E-01	---	TMOFDWELL
DWEL	Computed erosion rate of soil in Offsite Dwelling	0.000E+00	0.000E+00	---	EROSNDWELL
DWEL	Dry Bulk Density of soil in Offsite dwelling site	1.700E+00	1.500E+00	---	RHOBWDWELL

# Appendix H12: RESRAD-Offsite 3.1 Output for Area 3.1 Am-241

RESRAD-OFFSITE, Version 3.1      T<sub>1/2</sub> Limit = 30 days      05/04/2016 13:17 Page 10  
 Parent Dose Report  
 Title : RESRAD-OFFSITE Default Parameters  
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## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	RESRAD computed	Parameter Name
DWEL	Soil erodibility factor of soil in Dwelling site	0.000E+00	0.000E+00	---	ERODIBILITYDWELL
DWEL	Slope-length-steepness factor of Dwelling site	4.000E-01	4.000E-01	---	SLPLENSTPDWELL
DWEL	Cropping-management factor of Dwelling site	3.000E-03	3.000E-03	---	CRPMANGDWELL
DWEL	Conservation practice factor of Offsite Dwelling site	1.000E+00	1.000E+00	---	CONVPRACTDWELL
DWEL	Total porosity of soil in Offsite Dwelling	not used	4.000E-01	---	TPOFDWELL
AIRT	Dispersion Coefficients; 1 = Pasquill-Gifford	1	1	---	IDISPMOD
AIRT	Population zone; 1 = Rural	1	1	---	IZONE
AIRT	Release height, (m)	1.000E+00	1.000E+00	---	AIRRELHT
AIRT	Heat flux for buoyant plume (cal/s),	0.000E+00	0.000E+00	---	HEATFLX
AIRT	Anemometer height, (m)	1.000E+01	1.000E+01	---	ANH
AIRT	Absolute temperature (Kelvin)	2.850E+02	2.850E+02	---	TABK
AIRT	AM atmospheric mixing height (m)	4.000E+02	4.000E+02	---	AMIX
AIRT	PM atmospheric mixing height (m)	1.600E+03	1.600E+03	---	PMIX
AIRT	Elevation of Agricultural Area 1 above primary cont.	0.000E+00	0.000E+00	---	AGRIELEV(1)
AIRT	Elevation of Agricultural Area 2 above primary cont.	0.000E+00	0.000E+00	---	AGRIELEV(2)
AIRT	Elevation of Agricultural Area 3 above primary cont.	0.000E+00	0.000E+00	---	AGRIELEV(3)
AIRT	Elevation of Agricultural Area 4 above primary cont.	0.000E+00	0.000E+00	---	AGRIELEV(4)
AIRT	Elevation of Dwelling Site relative to primary cont.	0.000E+00	0.000E+00	---	DWELLELEV
AIRT	Elevation of Surf.Wtr body relative to primary cont.	0.000E+00	0.000E+00	---	SWELEV
AIRT	Joint frequency Meteorological data:				
AIRT	Upper limit for windspeed class 1 (m/s)	7.500E-01	8.900E-01	---	WINDSPEED(1)
AIRT	Upper limit for windspeed class 2 (m/s)	2.250E+00	2.460E+00	---	WINDSPEED(2)
AIRT	Upper limit for windspeed class 3 (m/s)	4.500E+00	4.470E+00	---	WINDSPEED(3)
AIRT	Upper limit for windspeed class 4 (m/s)	7.500E+00	6.930E+00	---	WINDSPEED(4)
AIRT	Upper limit for windspeed class 5 (m/s)	1.050E+01	9.610E+00	---	WINDSPEED(5)
AIRT	Upper limit for windspeed class 6 (m/s)	1.350E+01	1.252E+01	---	WINDSPEED(6)
AIRT	Joint Frequency in N Sector				
AIRT	for wind speed class 1 and stability class A	1.000E-04	1.000E+00	---	DFREQ(1,1,1)
AIRT	for wind speed class 1 and stability class B	0.000E+00	0.000E+00	---	DFREQ(1,2,1)
AIRT	for wind speed class 1 and stability class C	1.200E-04	0.000E+00	---	DFREQ(1,3,1)
AIRT	for wind speed class 1 and stability class D	6.950E-03	0.000E+00	---	DFREQ(1,4,1)
AIRT	for wind speed class 1 and stability class E	1.983E-02	0.000E+00	---	DFREQ(1,5,1)
AIRT	for wind speed class 1 and stability class F	1.547E-02	0.000E+00	---	DFREQ(1,6,1)
AIRT	Joint Frequency in N Sector				
AIRT	for wind speed class 2 and stability class A	2.200E-04	0.000E+00	---	DFREQ(2,1,1)
AIRT	for wind speed class 2 and stability class B	5.600E-04	0.000E+00	---	DFREQ(2,2,1)
AIRT	for wind speed class 2 and stability class C	1.660E-03	0.000E+00	---	DFREQ(2,3,1)
AIRT	for wind speed class 2 and stability class D	2.274E-02	0.000E+00	---	DFREQ(2,4,1)
AIRT	for wind speed class 2 and stability class E	2.191E-02	0.000E+00	---	DFREQ(2,5,1)
AIRT	for wind speed class 2 and stability class F	2.400E-03	0.000E+00	---	DFREQ(2,6,1)

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 Title : RESRAD-OFFSITE Default Parameters  
 File : AREA 3.1 FARMER AM.ROF

## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	RESRAD computed	Parameter Name
AIRT	Joint Frequency in N Sector				
AIRT	for wind speed class 3 and stability class A	5.100E-04	0.000E+00	---	DFREQ(3,1,1)
AIRT	for wind speed class 3 and stability class B	1.030E-03	0.000E+00	---	DFREQ(3,2,1)
AIRT	for wind speed class 3 and stability class C	1.810E-03	0.000E+00	---	DFREQ(3,3,1)
AIRT	for wind speed class 3 and stability class D	1.506E-02	0.000E+00	---	DFREQ(3,4,1)
AIRT	for wind speed class 3 and stability class E	7.710E-03	0.000E+00	---	DFREQ(3,5,1)
AIRT	for wind speed class 3 and stability class F	0.000E+00	0.000E+00	---	DFREQ(3,6,1)
AIRT	Joint Frequency in N Sector				
AIRT	for wind speed class 4 and stability class A	2.000E-05	0.000E+00	---	DFREQ(4,1,1)
AIRT	for wind speed class 4 and stability class B	7.000E-05	0.000E+00	---	DFREQ(4,2,1)
AIRT	for wind speed class 4 and stability class C	0.000E+00	0.000E+00	---	DFREQ(4,3,1)
AIRT	for wind speed class 4 and stability class D	6.100E-04	0.000E+00	---	DFREQ(4,4,1)
AIRT	for wind speed class 4 and stability class E	2.400E-04	0.000E+00	---	DFREQ(4,5,1)
AIRT	for wind speed class 4 and stability class F	0.000E+00	0.000E+00	---	DFREQ(4,6,1)
AIRT	Joint Frequency in N Sector				
AIRT	for wind speed class 5 and stability class A	0.000E+00	0.000E+00	---	DFREQ(5,1,1)
AIRT	for wind speed class 5 and stability class B	0.000E+00	0.000E+00	---	DFREQ(5,2,1)
AIRT	for wind speed class 5 and stability class C	0.000E+00	0.000E+00	---	DFREQ(5,3,1)
AIRT	for wind speed class 5 and stability class D	0.000E+00	0.000E+00	---	DFREQ(5,4,1)
AIRT	for wind speed class 5 and stability class E	0.000E+00	0.000E+00	---	DFREQ(5,5,1)
AIRT	for wind speed class 5 and stability class F	0.000E+00	0.000E+00	---	DFREQ(5,6,1)
AIRT	Joint Frequency in N Sector				
AIRT	for wind speed class 6 and stability class A	0.000E+00	0.000E+00	---	DFREQ(6,1,1)
AIRT	for wind speed class 6 and stability class B	0.000E+00	0.000E+00	---	DFREQ(6,2,1)
AIRT	for wind speed class 6 and stability class C	0.000E+00	0.000E+00	---	DFREQ(6,3,1)
AIRT	for wind speed class 6 and stability class D	0.000E+00	0.000E+00	---	DFREQ(6,4,1)
AIRT	for wind speed class 6 and stability class E	0.000E+00	0.000E+00	---	DFREQ(6,5,1)
AIRT	for wind speed class 6 and stability class F	0.000E+00	0.000E+00	---	DFREQ(6,6,1)
AIRT	Joint Frequency in NNE Sector				
AIRT	for wind speed class 1 and stability class A	5.000E-05	0.000E+00	---	DFREQ(1,1,2)
AIRT	for wind speed class 1 and stability class B	5.000E-05	0.000E+00	---	DFREQ(1,2,2)
AIRT	for wind speed class 1 and stability class C	7.000E-05	0.000E+00	---	DFREQ(1,3,2)
AIRT	for wind speed class 1 and stability class D	7.200E-03	0.000E+00	---	DFREQ(1,4,2)
AIRT	for wind speed class 1 and stability class E	1.092E-02	0.000E+00	---	DFREQ(1,5,2)
AIRT	for wind speed class 1 and stability class F	6.760E-03	0.000E+00	---	DFREQ(1,6,2)
AIRT	Joint Frequency in NNE Sector				
AIRT	for wind speed class 2 and stability class A	2.700E-04	0.000E+00	---	DFREQ(2,1,2)
AIRT	for wind speed class 2 and stability class B	8.300E-04	0.000E+00	---	DFREQ(2,2,2)
AIRT	for wind speed class 2 and stability class C	1.810E-03	0.000E+00	---	DFREQ(2,3,2)
AIRT	for wind speed class 2 and stability class D	2.296E-02	0.000E+00	---	DFREQ(2,4,2)
AIRT	for wind speed class 2 and stability class E	7.050E-03	0.000E+00	---	DFREQ(2,5,2)
AIRT	for wind speed class 2 and stability class F	2.200E-04	0.000E+00	---	DFREQ(2,6,2)

# Appendix H12: RESRAD-Offsite 3.1 Output for Area 3.1 Am-241

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 Title : RESRAD-OFFSITE Default Parameters  
 File : AREA 3.1 FARMER AM.ROF

## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	RESRAD computed	Parameter Name
AIRT	Joint Frequency in NNE Sector				
AIRT	for wind speed class 3 and stability class A	3.900E-04	0.000E+00	---	DFREQ(3,1,2)
AIRT	for wind speed class 3 and stability class B	6.400E-04	0.000E+00	---	DFREQ(3,2,2)
AIRT	for wind speed class 3 and stability class C	7.100E-04	0.000E+00	---	DFREQ(3,3,2)
AIRT	for wind speed class 3 and stability class D	6.930E-03	0.000E+00	---	DFREQ(3,4,2)
AIRT	for wind speed class 3 and stability class E	9.500E-04	0.000E+00	---	DFREQ(3,5,2)
AIRT	for wind speed class 3 and stability class F	0.000E+00	0.000E+00	---	DFREQ(3,6,2)
AIRT	Joint Frequency in NNE Sector				
AIRT	for wind speed class 4 and stability class A	0.000E+00	0.000E+00	---	DFREQ(4,1,2)
AIRT	for wind speed class 4 and stability class B	0.000E+00	0.000E+00	---	DFREQ(4,2,2)
AIRT	for wind speed class 4 and stability class C	0.000E+00	0.000E+00	---	DFREQ(4,3,2)
AIRT	for wind speed class 4 and stability class D	2.000E-05	0.000E+00	---	DFREQ(4,4,2)
AIRT	for wind speed class 4 and stability class E	0.000E+00	0.000E+00	---	DFREQ(4,5,2)
AIRT	for wind speed class 4 and stability class F	0.000E+00	0.000E+00	---	DFREQ(4,6,2)
AIRT	Joint Frequency in NNE Sector				
AIRT	for wind speed class 5 and stability class A	0.000E+00	0.000E+00	---	DFREQ(5,1,2)
AIRT	for wind speed class 5 and stability class B	0.000E+00	0.000E+00	---	DFREQ(5,2,2)
AIRT	for wind speed class 5 and stability class C	0.000E+00	0.000E+00	---	DFREQ(5,3,2)
AIRT	for wind speed class 5 and stability class D	0.000E+00	0.000E+00	---	DFREQ(5,4,2)
AIRT	for wind speed class 5 and stability class E	0.000E+00	0.000E+00	---	DFREQ(5,5,2)
AIRT	for wind speed class 5 and stability class F	0.000E+00	0.000E+00	---	DFREQ(5,6,2)
AIRT	Joint Frequency in NNE Sector				
AIRT	for wind speed class 6 and stability class A	0.000E+00	0.000E+00	---	DFREQ(6,1,2)
AIRT	for wind speed class 6 and stability class B	0.000E+00	0.000E+00	---	DFREQ(6,2,2)
AIRT	for wind speed class 6 and stability class C	0.000E+00	0.000E+00	---	DFREQ(6,3,2)
AIRT	for wind speed class 6 and stability class D	0.000E+00	0.000E+00	---	DFREQ(6,4,2)
AIRT	for wind speed class 6 and stability class E	0.000E+00	0.000E+00	---	DFREQ(6,5,2)
AIRT	for wind speed class 6 and stability class F	0.000E+00	0.000E+00	---	DFREQ(6,6,2)
AIRT	Joint Frequency in NE Sector				
AIRT	for wind speed class 1 and stability class A	2.000E-05	0.000E+00	---	DFREQ(1,1,3)
AIRT	for wind speed class 1 and stability class B	2.000E-05	0.000E+00	---	DFREQ(1,2,3)
AIRT	for wind speed class 1 and stability class C	7.000E-05	0.000E+00	---	DFREQ(1,3,3)
AIRT	for wind speed class 1 and stability class D	6.290E-03	0.000E+00	---	DFREQ(1,4,3)
AIRT	for wind speed class 1 and stability class E	6.860E-03	0.000E+00	---	DFREQ(1,5,3)
AIRT	for wind speed class 1 and stability class F	4.060E-03	0.000E+00	---	DFREQ(1,6,3)
AIRT	Joint Frequency in NE Sector				
AIRT	for wind speed class 2 and stability class A	3.900E-04	0.000E+00	---	DFREQ(2,1,3)
AIRT	for wind speed class 2 and stability class B	1.220E-03	0.000E+00	---	DFREQ(2,2,3)
AIRT	for wind speed class 2 and stability class C	2.500E-03	0.000E+00	---	DFREQ(2,3,3)
AIRT	for wind speed class 2 and stability class D	1.785E-02	0.000E+00	---	DFREQ(2,4,3)
AIRT	for wind speed class 2 and stability class E	1.440E-03	0.000E+00	---	DFREQ(2,5,3)
AIRT	for wind speed class 2 and stability class F	2.000E-05	0.000E+00	---	DFREQ(2,6,3)

# Appendix H12: RESRAD-Offsite 3.1 Output for Area 3.1 Am-241

RESRAD-OFFSITE, Version 3.1      T½ Limit = 30 days      05/04/2016 13:17 Page 13  
 Parent Dose Report  
 Title : RESRAD-OFFSITE Default Parameters  
 File : AREA 3.1 FARMER AM.ROF

## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	RESRAD computed	Parameter Name
AIRT	Joint Frequency in NE Sector				
AIRT	for wind speed class 3 and stability class A	3.400E-04	0.000E+00	---	DFREQ(3,1,3)
AIRT	for wind speed class 3 and stability class B	6.600E-04	0.000E+00	---	DFREQ(3,2,3)
AIRT	for wind speed class 3 and stability class C	7.300E-04	0.000E+00	---	DFREQ(3,3,3)
AIRT	for wind speed class 3 and stability class D	4.430E-03	0.000E+00	---	DFREQ(3,4,3)
AIRT	for wind speed class 3 and stability class E	7.000E-05	0.000E+00	---	DFREQ(3,5,3)
AIRT	for wind speed class 3 and stability class F	0.000E+00	0.000E+00	---	DFREQ(3,6,3)
AIRT	Joint Frequency in NE Sector				
AIRT	for wind speed class 4 and stability class A	0.000E+00	0.000E+00	---	DFREQ(4,1,3)
AIRT	for wind speed class 4 and stability class B	0.000E+00	0.000E+00	---	DFREQ(4,2,3)
AIRT	for wind speed class 4 and stability class C	0.000E+00	0.000E+00	---	DFREQ(4,3,3)
AIRT	for wind speed class 4 and stability class D	2.000E-05	0.000E+00	---	DFREQ(4,4,3)
AIRT	for wind speed class 4 and stability class E	0.000E+00	0.000E+00	---	DFREQ(4,5,3)
AIRT	for wind speed class 4 and stability class F	0.000E+00	0.000E+00	---	DFREQ(4,6,3)
AIRT	Joint Frequency in NE Sector				
AIRT	for wind speed class 5 and stability class A	0.000E+00	0.000E+00	---	DFREQ(5,1,3)
AIRT	for wind speed class 5 and stability class B	0.000E+00	0.000E+00	---	DFREQ(5,2,3)
AIRT	for wind speed class 5 and stability class C	0.000E+00	0.000E+00	---	DFREQ(5,3,3)
AIRT	for wind speed class 5 and stability class D	0.000E+00	0.000E+00	---	DFREQ(5,4,3)
AIRT	for wind speed class 5 and stability class E	0.000E+00	0.000E+00	---	DFREQ(5,5,3)
AIRT	for wind speed class 5 and stability class F	0.000E+00	0.000E+00	---	DFREQ(5,6,3)
AIRT	Joint Frequency in NE Sector				
AIRT	for wind speed class 6 and stability class A	0.000E+00	0.000E+00	---	DFREQ(6,1,3)
AIRT	for wind speed class 6 and stability class B	0.000E+00	0.000E+00	---	DFREQ(6,2,3)
AIRT	for wind speed class 6 and stability class C	0.000E+00	0.000E+00	---	DFREQ(6,3,3)
AIRT	for wind speed class 6 and stability class D	0.000E+00	0.000E+00	---	DFREQ(6,4,3)
AIRT	for wind speed class 6 and stability class E	0.000E+00	0.000E+00	---	DFREQ(6,5,3)
AIRT	for wind speed class 6 and stability class F	0.000E+00	0.000E+00	---	DFREQ(6,6,3)
AIRT	Joint Frequency in ENE Sector				
AIRT	for wind speed class 1 and stability class A	5.000E-05	0.000E+00	---	DFREQ(1,1,4)
AIRT	for wind speed class 1 and stability class B	0.000E+00	0.000E+00	---	DFREQ(1,2,4)
AIRT	for wind speed class 1 and stability class C	7.000E-05	0.000E+00	---	DFREQ(1,3,4)
AIRT	for wind speed class 1 and stability class D	6.150E-03	0.000E+00	---	DFREQ(1,4,4)
AIRT	for wind speed class 1 and stability class E	6.540E-03	0.000E+00	---	DFREQ(1,5,4)
AIRT	for wind speed class 1 and stability class F	2.720E-03	0.000E+00	---	DFREQ(1,6,4)
AIRT	Joint Frequency in ENE Sector				
AIRT	for wind speed class 2 and stability class A	2.400E-04	0.000E+00	---	DFREQ(2,1,4)
AIRT	for wind speed class 2 and stability class B	6.400E-04	0.000E+00	---	DFREQ(2,2,4)
AIRT	for wind speed class 2 and stability class C	1.180E-03	0.000E+00	---	DFREQ(2,3,4)
AIRT	for wind speed class 2 and stability class D	1.227E-02	0.000E+00	---	DFREQ(2,4,4)
AIRT	for wind speed class 2 and stability class E	1.000E-03	0.000E+00	---	DFREQ(2,5,4)
AIRT	for wind speed class 2 and stability class F	1.000E-04	0.000E+00	---	DFREQ(2,6,4)

# Appendix H12: RESRAD-Offsite 3.1 Output for Area 3.1 Am-241

RESRAD-OFFSITE, Version 3.1      T½ Limit = 30 days      05/04/2016 13:17 Page 14  
 Parent Dose Report  
 Title : RESRAD-OFFSITE Default Parameters  
 File : AREA 3.1 FARMER AM.ROF

## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	RESRAD computed	Parameter Name
AIRT	Joint Frequency in ENE Sector				
AIRT	for wind speed class 3 and stability class A	7.000E-05	0.000E+00	---	DFREQ(3,1,4)
AIRT	for wind speed class 3 and stability class B	2.400E-04	0.000E+00	---	DFREQ(3,2,4)
AIRT	for wind speed class 3 and stability class C	4.700E-04	0.000E+00	---	DFREQ(3,3,4)
AIRT	for wind speed class 3 and stability class D	2.350E-03	0.000E+00	---	DFREQ(3,4,4)
AIRT	for wind speed class 3 and stability class E	7.000E-05	0.000E+00	---	DFREQ(3,5,4)
AIRT	for wind speed class 3 and stability class F	0.000E+00	0.000E+00	---	DFREQ(3,6,4)
AIRT	Joint Frequency in ENE Sector				
AIRT	for wind speed class 4 and stability class A	0.000E+00	0.000E+00	---	DFREQ(4,1,4)
AIRT	for wind speed class 4 and stability class B	0.000E+00	0.000E+00	---	DFREQ(4,2,4)
AIRT	for wind speed class 4 and stability class C	0.000E+00	0.000E+00	---	DFREQ(4,3,4)
AIRT	for wind speed class 4 and stability class D	0.000E+00	0.000E+00	---	DFREQ(4,4,4)
AIRT	for wind speed class 4 and stability class E	0.000E+00	0.000E+00	---	DFREQ(4,5,4)
AIRT	for wind speed class 4 and stability class F	0.000E+00	0.000E+00	---	DFREQ(4,6,4)
AIRT	Joint Frequency in ENE Sector				
AIRT	for wind speed class 5 and stability class A	0.000E+00	0.000E+00	---	DFREQ(5,1,4)
AIRT	for wind speed class 5 and stability class B	0.000E+00	0.000E+00	---	DFREQ(5,2,4)
AIRT	for wind speed class 5 and stability class C	0.000E+00	0.000E+00	---	DFREQ(5,3,4)
AIRT	for wind speed class 5 and stability class D	0.000E+00	0.000E+00	---	DFREQ(5,4,4)
AIRT	for wind speed class 5 and stability class E	0.000E+00	0.000E+00	---	DFREQ(5,5,4)
AIRT	for wind speed class 5 and stability class F	0.000E+00	0.000E+00	---	DFREQ(5,6,4)
AIRT	Joint Frequency in ENE Sector				
AIRT	for wind speed class 6 and stability class A	0.000E+00	0.000E+00	---	DFREQ(6,1,4)
AIRT	for wind speed class 6 and stability class B	0.000E+00	0.000E+00	---	DFREQ(6,2,4)
AIRT	for wind speed class 6 and stability class C	0.000E+00	0.000E+00	---	DFREQ(6,3,4)
AIRT	for wind speed class 6 and stability class D	0.000E+00	0.000E+00	---	DFREQ(6,4,4)
AIRT	for wind speed class 6 and stability class E	0.000E+00	0.000E+00	---	DFREQ(6,5,4)
AIRT	for wind speed class 6 and stability class F	0.000E+00	0.000E+00	---	DFREQ(6,6,4)
AIRT	Joint Frequency in E Sector				
AIRT	for wind speed class 1 and stability class A	2.000E-04	0.000E+00	---	DFREQ(1,1,5)
AIRT	for wind speed class 1 and stability class B	2.000E-05	0.000E+00	---	DFREQ(1,2,5)
AIRT	for wind speed class 1 and stability class C	5.000E-05	0.000E+00	---	DFREQ(1,3,5)
AIRT	for wind speed class 1 and stability class D	8.320E-03	0.000E+00	---	DFREQ(1,4,5)
AIRT	for wind speed class 1 and stability class E	7.100E-03	0.000E+00	---	DFREQ(1,5,5)
AIRT	for wind speed class 1 and stability class F	1.660E-03	0.000E+00	---	DFREQ(1,6,5)
AIRT	Joint Frequency in E Sector				
AIRT	for wind speed class 2 and stability class A	2.700E-04	0.000E+00	---	DFREQ(2,1,5)
AIRT	for wind speed class 2 and stability class B	8.300E-04	0.000E+00	---	DFREQ(2,2,5)
AIRT	for wind speed class 2 and stability class C	1.740E-03	0.000E+00	---	DFREQ(2,3,5)
AIRT	for wind speed class 2 and stability class D	2.025E-02	0.000E+00	---	DFREQ(2,4,5)
AIRT	for wind speed class 2 and stability class E	1.620E-03	0.000E+00	---	DFREQ(2,5,5)
AIRT	for wind speed class 2 and stability class F	1.700E-04	0.000E+00	---	DFREQ(2,6,5)

# Appendix H12: RESRAD-Offsite 3.1 Output for Area 3.1 Am-241

RESRAD-OFFSITE, Version 3.1      T<sub>1/2</sub> Limit = 30 days      05/04/2016 13:17 Page 15  
 Parent Dose Report  
 Title : RESRAD-OFFSITE Default Parameters  
 File : AREA 3.1 FARMER AM.ROF

## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	RESRAD computed	Parameter Name
AIRT	Joint Frequency in E Sector				
AIRT	for wind speed class 3 and stability class A	7.000E-05	0.000E+00	---	DFREQ(3,1,5)
AIRT	for wind speed class 3 and stability class B	3.400E-04	0.000E+00	---	DFREQ(3,2,5)
AIRT	for wind speed class 3 and stability class C	5.100E-04	0.000E+00	---	DFREQ(3,3,5)
AIRT	for wind speed class 3 and stability class D	5.240E-03	0.000E+00	---	DFREQ(3,4,5)
AIRT	for wind speed class 3 and stability class E	7.000E-05	0.000E+00	---	DFREQ(3,5,5)
AIRT	for wind speed class 3 and stability class F	0.000E+00	0.000E+00	---	DFREQ(3,6,5)
AIRT	Joint Frequency in E Sector				
AIRT	for wind speed class 4 and stability class A	0.000E+00	0.000E+00	---	DFREQ(4,1,5)
AIRT	for wind speed class 4 and stability class B	0.000E+00	0.000E+00	---	DFREQ(4,2,5)
AIRT	for wind speed class 4 and stability class C	0.000E+00	0.000E+00	---	DFREQ(4,3,5)
AIRT	for wind speed class 4 and stability class D	0.000E+00	0.000E+00	---	DFREQ(4,4,5)
AIRT	for wind speed class 4 and stability class E	0.000E+00	0.000E+00	---	DFREQ(4,5,5)
AIRT	for wind speed class 4 and stability class F	0.000E+00	0.000E+00	---	DFREQ(4,6,5)
AIRT	Joint Frequency in E Sector				
AIRT	for wind speed class 5 and stability class A	0.000E+00	0.000E+00	---	DFREQ(5,1,5)
AIRT	for wind speed class 5 and stability class B	0.000E+00	0.000E+00	---	DFREQ(5,2,5)
AIRT	for wind speed class 5 and stability class C	0.000E+00	0.000E+00	---	DFREQ(5,3,5)
AIRT	for wind speed class 5 and stability class D	0.000E+00	0.000E+00	---	DFREQ(5,4,5)
AIRT	for wind speed class 5 and stability class E	0.000E+00	0.000E+00	---	DFREQ(5,5,5)
AIRT	for wind speed class 5 and stability class F	0.000E+00	0.000E+00	---	DFREQ(5,6,5)
AIRT	Joint Frequency in E Sector				
AIRT	for wind speed class 6 and stability class A	0.000E+00	0.000E+00	---	DFREQ(6,1,5)
AIRT	for wind speed class 6 and stability class B	0.000E+00	0.000E+00	---	DFREQ(6,2,5)
AIRT	for wind speed class 6 and stability class C	0.000E+00	0.000E+00	---	DFREQ(6,3,5)
AIRT	for wind speed class 6 and stability class D	0.000E+00	0.000E+00	---	DFREQ(6,4,5)
AIRT	for wind speed class 6 and stability class E	0.000E+00	0.000E+00	---	DFREQ(6,5,5)
AIRT	for wind speed class 6 and stability class F	0.000E+00	0.000E+00	---	DFREQ(6,6,5)
AIRT	Joint Frequency in ESE Sector				
AIRT	for wind speed class 1 and stability class A	0.000E+00	0.000E+00	---	DFREQ(1,1,6)
AIRT	for wind speed class 1 and stability class B	2.000E-05	0.000E+00	---	DFREQ(1,2,6)
AIRT	for wind speed class 1 and stability class C	2.000E-04	0.000E+00	---	DFREQ(1,3,6)
AIRT	for wind speed class 1 and stability class D	1.050E-02	0.000E+00	---	DFREQ(1,4,6)
AIRT	for wind speed class 1 and stability class E	7.760E-03	0.000E+00	---	DFREQ(1,5,6)
AIRT	for wind speed class 1 and stability class F	6.900E-04	0.000E+00	---	DFREQ(1,6,6)
AIRT	Joint Frequency in ESE Sector				
AIRT	for wind speed class 2 and stability class A	5.400E-04	0.000E+00	---	DFREQ(2,1,6)
AIRT	for wind speed class 2 and stability class B	1.640E-03	0.000E+00	---	DFREQ(2,2,6)
AIRT	for wind speed class 2 and stability class C	3.500E-03	0.000E+00	---	DFREQ(2,3,6)
AIRT	for wind speed class 2 and stability class D	3.529E-02	0.000E+00	---	DFREQ(2,4,6)
AIRT	for wind speed class 2 and stability class E	4.480E-03	0.000E+00	---	DFREQ(2,5,6)
AIRT	for wind speed class 2 and stability class F	5.000E-05	0.000E+00	---	DFREQ(2,6,6)

# Appendix H12: RESRAD-Offsite 3.1 Output for Area 3.1 Am-241

RESRAD-OFFSITE, Version 3.1      T½ Limit = 30 days      05/04/2016 13:17 Page 16  
 Parent Dose Report  
 Title : RESRAD-OFFSITE Default Parameters  
 File : AREA 3.1 FARMER AM.ROF

## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	RESRAD computed	Parameter Name
AIRT	Joint Frequency in ESE Sector				
AIRT	for wind speed class 3 and stability class A	9.800E-04	0.000E+00	---	DFREQ(3,1,6)
AIRT	for wind speed class 3 and stability class B	1.490E-03	0.000E+00	---	DFREQ(3,2,6)
AIRT	for wind speed class 3 and stability class C	1.760E-03	0.000E+00	---	DFREQ(3,3,6)
AIRT	for wind speed class 3 and stability class D	1.809E-02	0.000E+00	---	DFREQ(3,4,6)
AIRT	for wind speed class 3 and stability class E	5.000E-05	0.000E+00	---	DFREQ(3,5,6)
AIRT	for wind speed class 3 and stability class F	0.000E+00	0.000E+00	---	DFREQ(3,6,6)
AIRT	Joint Frequency in ESE Sector				
AIRT	for wind speed class 4 and stability class A	0.000E+00	0.000E+00	---	DFREQ(4,1,6)
AIRT	for wind speed class 4 and stability class B	2.000E-05	0.000E+00	---	DFREQ(4,2,6)
AIRT	for wind speed class 4 and stability class C	5.000E-05	0.000E+00	---	DFREQ(4,3,6)
AIRT	for wind speed class 4 and stability class D	2.000E-05	0.000E+00	---	DFREQ(4,4,6)
AIRT	for wind speed class 4 and stability class E	0.000E+00	0.000E+00	---	DFREQ(4,5,6)
AIRT	for wind speed class 4 and stability class F	0.000E+00	0.000E+00	---	DFREQ(4,6,6)
AIRT	Joint Frequency in ESE Sector				
AIRT	for wind speed class 5 and stability class A	0.000E+00	0.000E+00	---	DFREQ(5,1,6)
AIRT	for wind speed class 5 and stability class B	0.000E+00	0.000E+00	---	DFREQ(5,2,6)
AIRT	for wind speed class 5 and stability class C	0.000E+00	0.000E+00	---	DFREQ(5,3,6)
AIRT	for wind speed class 5 and stability class D	0.000E+00	0.000E+00	---	DFREQ(5,4,6)
AIRT	for wind speed class 5 and stability class E	0.000E+00	0.000E+00	---	DFREQ(5,5,6)
AIRT	for wind speed class 5 and stability class F	0.000E+00	0.000E+00	---	DFREQ(5,6,6)
AIRT	Joint Frequency in ESE Sector				
AIRT	for wind speed class 6 and stability class A	0.000E+00	0.000E+00	---	DFREQ(6,1,6)
AIRT	for wind speed class 6 and stability class B	0.000E+00	0.000E+00	---	DFREQ(6,2,6)
AIRT	for wind speed class 6 and stability class C	0.000E+00	0.000E+00	---	DFREQ(6,3,6)
AIRT	for wind speed class 6 and stability class D	0.000E+00	0.000E+00	---	DFREQ(6,4,6)
AIRT	for wind speed class 6 and stability class E	0.000E+00	0.000E+00	---	DFREQ(6,5,6)
AIRT	for wind speed class 6 and stability class F	0.000E+00	0.000E+00	---	DFREQ(6,6,6)
AIRT	Joint Frequency in SE Sector				
AIRT	for wind speed class 1 and stability class A	2.000E-05	0.000E+00	---	DFREQ(1,1,7)
AIRT	for wind speed class 1 and stability class B	0.000E+00	0.000E+00	---	DFREQ(1,2,7)
AIRT	for wind speed class 1 and stability class C	1.700E-04	0.000E+00	---	DFREQ(1,3,7)
AIRT	for wind speed class 1 and stability class D	9.060E-03	0.000E+00	---	DFREQ(1,4,7)
AIRT	for wind speed class 1 and stability class E	4.280E-03	0.000E+00	---	DFREQ(1,5,7)
AIRT	for wind speed class 1 and stability class F	4.900E-04	0.000E+00	---	DFREQ(1,6,7)
AIRT	Joint Frequency in SE Sector				
AIRT	for wind speed class 2 and stability class A	1.130E-03	0.000E+00	---	DFREQ(2,1,7)
AIRT	for wind speed class 2 and stability class B	2.910E-03	0.000E+00	---	DFREQ(2,2,7)
AIRT	for wind speed class 2 and stability class C	4.970E-03	0.000E+00	---	DFREQ(2,3,7)
AIRT	for wind speed class 2 and stability class D	6.305E-02	0.000E+00	---	DFREQ(2,4,7)
AIRT	for wind speed class 2 and stability class E	5.540E-03	0.000E+00	---	DFREQ(2,5,7)
AIRT	for wind speed class 2 and stability class F	1.500E-04	0.000E+00	---	DFREQ(2,6,7)

# Appendix H12: RESRAD-Offsite 3.1 Output for Area 3.1 Am-241

RESRAD-OFFSITE, Version 3.1      T<sub>1/2</sub> Limit = 30 days      05/04/2016 13:17 Page 17  
 Parent Dose Report  
 Title : RESRAD-OFFSITE Default Parameters  
 File : AREA 3.1 FARMER AM.ROF

## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	RESRAD computed	Parameter Name
AIRT	Joint Frequency in SE Sector				
AIRT	for wind speed class 3 and stability class A	5.920E-03	0.000E+00	---	DFREQ(3,1,7)
AIRT	for wind speed class 3 and stability class B	5.900E-03	0.000E+00	---	DFREQ(3,2,7)
AIRT	for wind speed class 3 and stability class C	8.350E-03	0.000E+00	---	DFREQ(3,3,7)
AIRT	for wind speed class 3 and stability class D	4.447E-02	0.000E+00	---	DFREQ(3,4,7)
AIRT	for wind speed class 3 and stability class E	6.900E-04	0.000E+00	---	DFREQ(3,5,7)
AIRT	for wind speed class 3 and stability class F	0.000E+00	0.000E+00	---	DFREQ(3,6,7)
AIRT	Joint Frequency in SE Sector				
AIRT	for wind speed class 4 and stability class A	5.000E-05	0.000E+00	---	DFREQ(4,1,7)
AIRT	for wind speed class 4 and stability class B	2.000E-05	0.000E+00	---	DFREQ(4,2,7)
AIRT	for wind speed class 4 and stability class C	1.000E-04	0.000E+00	---	DFREQ(4,3,7)
AIRT	for wind speed class 4 and stability class D	2.000E-04	0.000E+00	---	DFREQ(4,4,7)
AIRT	for wind speed class 4 and stability class E	0.000E+00	0.000E+00	---	DFREQ(4,5,7)
AIRT	for wind speed class 4 and stability class F	0.000E+00	0.000E+00	---	DFREQ(4,6,7)
AIRT	Joint Frequency in SE Sector				
AIRT	for wind speed class 5 and stability class A	0.000E+00	0.000E+00	---	DFREQ(5,1,7)
AIRT	for wind speed class 5 and stability class B	0.000E+00	0.000E+00	---	DFREQ(5,2,7)
AIRT	for wind speed class 5 and stability class C	0.000E+00	0.000E+00	---	DFREQ(5,3,7)
AIRT	for wind speed class 5 and stability class D	0.000E+00	0.000E+00	---	DFREQ(5,4,7)
AIRT	for wind speed class 5 and stability class E	0.000E+00	0.000E+00	---	DFREQ(5,5,7)
AIRT	for wind speed class 5 and stability class F	0.000E+00	0.000E+00	---	DFREQ(5,6,7)
AIRT	Joint Frequency in SE Sector				
AIRT	for wind speed class 6 and stability class A	0.000E+00	0.000E+00	---	DFREQ(6,1,7)
AIRT	for wind speed class 6 and stability class B	0.000E+00	0.000E+00	---	DFREQ(6,2,7)
AIRT	for wind speed class 6 and stability class C	0.000E+00	0.000E+00	---	DFREQ(6,3,7)
AIRT	for wind speed class 6 and stability class D	0.000E+00	0.000E+00	---	DFREQ(6,4,7)
AIRT	for wind speed class 6 and stability class E	0.000E+00	0.000E+00	---	DFREQ(6,5,7)
AIRT	for wind speed class 6 and stability class F	0.000E+00	0.000E+00	---	DFREQ(6,6,7)
AIRT	Joint Frequency in SSE Sector				
AIRT	for wind speed class 1 and stability class A	0.000E+00	0.000E+00	---	DFREQ(1,1,8)
AIRT	for wind speed class 1 and stability class B	0.000E+00	0.000E+00	---	DFREQ(1,2,8)
AIRT	for wind speed class 1 and stability class C	1.000E-04	0.000E+00	---	DFREQ(1,3,8)
AIRT	for wind speed class 1 and stability class D	3.600E-03	0.000E+00	---	DFREQ(1,4,8)
AIRT	for wind speed class 1 and stability class E	1.470E-03	0.000E+00	---	DFREQ(1,5,8)
AIRT	for wind speed class 1 and stability class F	5.600E-04	0.000E+00	---	DFREQ(1,6,8)
AIRT	Joint Frequency in SSE Sector				
AIRT	for wind speed class 2 and stability class A	4.700E-04	0.000E+00	---	DFREQ(2,1,8)
AIRT	for wind speed class 2 and stability class B	8.300E-04	0.000E+00	---	DFREQ(2,2,8)
AIRT	for wind speed class 2 and stability class C	2.330E-03	0.000E+00	---	DFREQ(2,3,8)
AIRT	for wind speed class 2 and stability class D	1.542E-02	0.000E+00	---	DFREQ(2,4,8)
AIRT	for wind speed class 2 and stability class E	8.300E-04	0.000E+00	---	DFREQ(2,5,8)
AIRT	for wind speed class 2 and stability class F	1.000E-04	0.000E+00	---	DFREQ(2,6,8)

# Appendix H12: RESRAD-Offsite 3.1 Output for Area 3.1 Am-241

RESRAD-OFFSITE, Version 3.1      T½ Limit = 30 days      05/04/2016 13:17 Page 18  
 Parent Dose Report  
 Title : RESRAD-OFFSITE Default Parameters  
 File : AREA 3.1 FARMER AM.ROF

## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	RESRAD computed	Parameter Name
AIRT	Joint Frequency in SSE Sector				
AIRT	for wind speed class 3 and stability class A	1.640E-03	0.000E+00	---	DFREQ(3,1,8)
AIRT	for wind speed class 3 and stability class B	2.330E-03	0.000E+00	---	DFREQ(3,2,8)
AIRT	for wind speed class 3 and stability class C	2.890E-03	0.000E+00	---	DFREQ(3,3,8)
AIRT	for wind speed class 3 and stability class D	1.205E-02	0.000E+00	---	DFREQ(3,4,8)
AIRT	for wind speed class 3 and stability class E	7.000E-05	0.000E+00	---	DFREQ(3,5,8)
AIRT	for wind speed class 3 and stability class F	0.000E+00	0.000E+00	---	DFREQ(3,6,8)
AIRT	Joint Frequency in SSE Sector				
AIRT	for wind speed class 4 and stability class A	1.500E-04	0.000E+00	---	DFREQ(4,1,8)
AIRT	for wind speed class 4 and stability class B	5.000E-05	0.000E+00	---	DFREQ(4,2,8)
AIRT	for wind speed class 4 and stability class C	1.200E-04	0.000E+00	---	DFREQ(4,3,8)
AIRT	for wind speed class 4 and stability class D	1.000E-04	0.000E+00	---	DFREQ(4,4,8)
AIRT	for wind speed class 4 and stability class E	0.000E+00	0.000E+00	---	DFREQ(4,5,8)
AIRT	for wind speed class 4 and stability class F	0.000E+00	0.000E+00	---	DFREQ(4,6,8)
AIRT	Joint Frequency in SSE Sector				
AIRT	for wind speed class 5 and stability class A	0.000E+00	0.000E+00	---	DFREQ(5,1,8)
AIRT	for wind speed class 5 and stability class B	0.000E+00	0.000E+00	---	DFREQ(5,2,8)
AIRT	for wind speed class 5 and stability class C	0.000E+00	0.000E+00	---	DFREQ(5,3,8)
AIRT	for wind speed class 5 and stability class D	0.000E+00	0.000E+00	---	DFREQ(5,4,8)
AIRT	for wind speed class 5 and stability class E	0.000E+00	0.000E+00	---	DFREQ(5,5,8)
AIRT	for wind speed class 5 and stability class F	0.000E+00	0.000E+00	---	DFREQ(5,6,8)
AIRT	Joint Frequency in SSE Sector				
AIRT	for wind speed class 6 and stability class A	0.000E+00	0.000E+00	---	DFREQ(6,1,8)
AIRT	for wind speed class 6 and stability class B	0.000E+00	0.000E+00	---	DFREQ(6,2,8)
AIRT	for wind speed class 6 and stability class C	0.000E+00	0.000E+00	---	DFREQ(6,3,8)
AIRT	for wind speed class 6 and stability class D	0.000E+00	0.000E+00	---	DFREQ(6,4,8)
AIRT	for wind speed class 6 and stability class E	0.000E+00	0.000E+00	---	DFREQ(6,5,8)
AIRT	for wind speed class 6 and stability class F	0.000E+00	0.000E+00	---	DFREQ(6,6,8)
AIRT	Joint Frequency in S Sector				
AIRT	for wind speed class 1 and stability class A	0.000E+00	0.000E+00	---	DFREQ(1,1,9)
AIRT	for wind speed class 1 and stability class B	0.000E+00	0.000E+00	---	DFREQ(1,2,9)
AIRT	for wind speed class 1 and stability class C	2.000E-05	0.000E+00	---	DFREQ(1,3,9)
AIRT	for wind speed class 1 and stability class D	3.210E-03	0.000E+00	---	DFREQ(1,4,9)
AIRT	for wind speed class 1 and stability class E	9.300E-04	0.000E+00	---	DFREQ(1,5,9)
AIRT	for wind speed class 1 and stability class F	3.900E-04	0.000E+00	---	DFREQ(1,6,9)
AIRT	Joint Frequency in S Sector				
AIRT	for wind speed class 2 and stability class A	5.100E-04	0.000E+00	---	DFREQ(2,1,9)
AIRT	for wind speed class 2 and stability class B	5.900E-04	0.000E+00	---	DFREQ(2,2,9)
AIRT	for wind speed class 2 and stability class C	1.740E-03	0.000E+00	---	DFREQ(2,3,9)
AIRT	for wind speed class 2 and stability class D	1.031E-02	0.000E+00	---	DFREQ(2,4,9)
AIRT	for wind speed class 2 and stability class E	2.000E-04	0.000E+00	---	DFREQ(2,5,9)
AIRT	for wind speed class 2 and stability class F	0.000E+00	0.000E+00	---	DFREQ(2,6,9)

# Appendix H12: RESRAD-Offsite 3.1 Output for Area 3.1 Am-241

RESRAD-OFFSITE, Version 3.1. T4 Limit = 30 days 05/04/2016 13:17 Page 19  
 Parent Dose Report  
 Title : RESRAD-OFFSITE Default Parameters  
 File : AREA 3.1 FARMER AM.ROF

## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	RESRAD computed	Parameter Name
AIRT	Joint Frequency in S Sector				
AIRT	for wind speed class 3 and stability class A	4.900E-04	0.000E+00	---	DFREQ(3,1,9)
AIRT	for wind speed class 3 and stability class B	4.400E-04	0.000E+00	---	DFREQ(3,2,9)
AIRT	for wind speed class 3 and stability class C	7.300E-04	0.000E+00	---	DFREQ(3,3,9)
AIRT	for wind speed class 3 and stability class D	3.080E-03	0.000E+00	---	DFREQ(3,4,9)
AIRT	for wind speed class 3 and stability class E	2.000E-05	0.000E+00	---	DFREQ(3,5,9)
AIRT	for wind speed class 3 and stability class F	0.000E+00	0.000E+00	---	DFREQ(3,6,9)
AIRT	Joint Frequency in S Sector				
AIRT	for wind speed class 4 and stability class A	0.000E+00	0.000E+00	---	DFREQ(4,1,9)
AIRT	for wind speed class 4 and stability class B	0.000E+00	0.000E+00	---	DFREQ(4,2,9)
AIRT	for wind speed class 4 and stability class C	0.000E+00	0.000E+00	---	DFREQ(4,3,9)
AIRT	for wind speed class 4 and stability class D	0.000E+00	0.000E+00	---	DFREQ(4,4,9)
AIRT	for wind speed class 4 and stability class E	0.000E+00	0.000E+00	---	DFREQ(4,5,9)
AIRT	for wind speed class 4 and stability class F	0.000E+00	0.000E+00	---	DFREQ(4,6,9)
AIRT	Joint Frequency in S Sector				
AIRT	for wind speed class 5 and stability class A	0.000E+00	0.000E+00	---	DFREQ(5,1,9)
AIRT	for wind speed class 5 and stability class B	0.000E+00	0.000E+00	---	DFREQ(5,2,9)
AIRT	for wind speed class 5 and stability class C	0.000E+00	0.000E+00	---	DFREQ(5,3,9)
AIRT	for wind speed class 5 and stability class D	0.000E+00	0.000E+00	---	DFREQ(5,4,9)
AIRT	for wind speed class 5 and stability class E	0.000E+00	0.000E+00	---	DFREQ(5,5,9)
AIRT	for wind speed class 5 and stability class F	0.000E+00	0.000E+00	---	DFREQ(5,6,9)
AIRT	Joint Frequency in S Sector				
AIRT	for wind speed class 6 and stability class A	0.000E+00	0.000E+00	---	DFREQ(6,1,9)
AIRT	for wind speed class 6 and stability class B	0.000E+00	0.000E+00	---	DFREQ(6,2,9)
AIRT	for wind speed class 6 and stability class C	0.000E+00	0.000E+00	---	DFREQ(6,3,9)
AIRT	for wind speed class 6 and stability class D	0.000E+00	0.000E+00	---	DFREQ(6,4,9)
AIRT	for wind speed class 6 and stability class E	0.000E+00	0.000E+00	---	DFREQ(6,5,9)
AIRT	for wind speed class 6 and stability class F	0.000E+00	0.000E+00	---	DFREQ(6,6,9)
AIRT	Joint Frequency in SSW Sector				
AIRT	for wind speed class 1 and stability class A	0.000E+00	0.000E+00	---	DFREQ(1,1,10)
AIRT	for wind speed class 1 and stability class B	5.000E-05	0.000E+00	---	DFREQ(1,2,10)
AIRT	for wind speed class 1 and stability class C	2.200E-04	0.000E+00	---	DFREQ(1,3,10)
AIRT	for wind speed class 1 and stability class D	3.400E-03	0.000E+00	---	DFREQ(1,4,10)
AIRT	for wind speed class 1 and stability class E	9.300E-04	0.000E+00	---	DFREQ(1,5,10)
AIRT	for wind speed class 1 and stability class F	2.400E-04	0.000E+00	---	DFREQ(1,6,10)
AIRT	Joint Frequency in SSW Sector				
AIRT	for wind speed class 2 and stability class A	4.400E-04	0.000E+00	---	DFREQ(2,1,10)
AIRT	for wind speed class 2 and stability class B	6.900E-04	0.000E+00	---	DFREQ(2,2,10)
AIRT	for wind speed class 2 and stability class C	9.500E-04	0.000E+00	---	DFREQ(2,3,10)
AIRT	for wind speed class 2 and stability class D	6.390E-03	0.000E+00	---	DFREQ(2,4,10)
AIRT	for wind speed class 2 and stability class E	2.000E-04	0.000E+00	---	DFREQ(2,5,10)
AIRT	for wind speed class 2 and stability class F	2.000E-05	0.000E+00	---	DFREQ(2,6,10)

# Appendix H12: RESRAD-Offsite 3.1 Output for Area 3.1 Am-241

RESRAD-OFFSITE, Version 3.1      T4 Limit = 30 days      05/04/2016 13:17 Page 20  
 Parent Dose Report  
 Title : RESRAD-OFFSITE Default Parameters  
 File : AREA 3.1 FARMER AM.ROF

## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	RESRAD computed	Parameter Name
AIRT	Joint Frequency in SSW Sector				
AIRT	for wind speed class 3 and stability class A	2.900E-04	0.000E+00	---	DFREQ(3,1,10)
AIRT	for wind speed class 3 and stability class B	3.700E-04	0.000E+00	---	DFREQ(3,2,10)
AIRT	for wind speed class 3 and stability class C	2.700E-04	0.000E+00	---	DFREQ(3,3,10)
AIRT	for wind speed class 3 and stability class D	1.130E-03	0.000E+00	---	DFREQ(3,4,10)
AIRT	for wind speed class 3 and stability class E	0.000E+00	0.000E+00	---	DFREQ(3,5,10)
AIRT	for wind speed class 3 and stability class F	0.000E+00	0.000E+00	---	DFREQ(3,6,10)
AIRT	Joint Frequency in SSW Sector				
AIRT	for wind speed class 4 and stability class A	0.000E+00	0.000E+00	---	DFREQ(4,1,10)
AIRT	for wind speed class 4 and stability class B	0.000E+00	0.000E+00	---	DFREQ(4,2,10)
AIRT	for wind speed class 4 and stability class C	0.000E+00	0.000E+00	---	DFREQ(4,3,10)
AIRT	for wind speed class 4 and stability class D	0.000E+00	0.000E+00	---	DFREQ(4,4,10)
AIRT	for wind speed class 4 and stability class E	0.000E+00	0.000E+00	---	DFREQ(4,5,10)
AIRT	for wind speed class 4 and stability class F	0.000E+00	0.000E+00	---	DFREQ(4,6,10)
AIRT	Joint Frequency in SSW Sector				
AIRT	for wind speed class 5 and stability class A	0.000E+00	0.000E+00	---	DFREQ(5,1,10)
AIRT	for wind speed class 5 and stability class B	0.000E+00	0.000E+00	---	DFREQ(5,2,10)
AIRT	for wind speed class 5 and stability class C	0.000E+00	0.000E+00	---	DFREQ(5,3,10)
AIRT	for wind speed class 5 and stability class D	0.000E+00	0.000E+00	---	DFREQ(5,4,10)
AIRT	for wind speed class 5 and stability class E	0.000E+00	0.000E+00	---	DFREQ(5,5,10)
AIRT	for wind speed class 5 and stability class F	0.000E+00	0.000E+00	---	DFREQ(5,6,10)
AIRT	Joint Frequency in SSW Sector				
AIRT	for wind speed class 6 and stability class A	0.000E+00	0.000E+00	---	DFREQ(6,1,10)
AIRT	for wind speed class 6 and stability class B	0.000E+00	0.000E+00	---	DFREQ(6,2,10)
AIRT	for wind speed class 6 and stability class C	0.000E+00	0.000E+00	---	DFREQ(6,3,10)
AIRT	for wind speed class 6 and stability class D	0.000E+00	0.000E+00	---	DFREQ(6,4,10)
AIRT	for wind speed class 6 and stability class E	0.000E+00	0.000E+00	---	DFREQ(6,5,10)
AIRT	for wind speed class 6 and stability class F	0.000E+00	0.000E+00	---	DFREQ(6,6,10)
AIRT	Joint Frequency in SW Sector				
AIRT	for wind speed class 1 and stability class A	0.000E+00	0.000E+00	---	DFREQ(1,1,11)
AIRT	for wind speed class 1 and stability class B	7.000E-05	0.000E+00	---	DFREQ(1,2,11)
AIRT	for wind speed class 1 and stability class C	1.200E-04	0.000E+00	---	DFREQ(1,3,11)
AIRT	for wind speed class 1 and stability class D	2.230E-03	0.000E+00	---	DFREQ(1,4,11)
AIRT	for wind speed class 1 and stability class E	7.800E-04	0.000E+00	---	DFREQ(1,5,11)
AIRT	for wind speed class 1 and stability class F	4.900E-04	0.000E+00	---	DFREQ(1,6,11)
AIRT	Joint Frequency in SW Sector				
AIRT	for wind speed class 2 and stability class A	3.200E-04	0.000E+00	---	DFREQ(2,1,11)
AIRT	for wind speed class 2 and stability class B	5.400E-04	0.000E+00	---	DFREQ(2,2,11)
AIRT	for wind speed class 2 and stability class C	8.100E-04	0.000E+00	---	DFREQ(2,3,11)
AIRT	for wind speed class 2 and stability class D	4.160E-03	0.000E+00	---	DFREQ(2,4,11)
AIRT	for wind speed class 2 and stability class E	2.200E-04	0.000E+00	---	DFREQ(2,5,11)
AIRT	for wind speed class 2 and stability class F	0.000E+00	0.000E+00	---	DFREQ(2,6,11)

# Appendix H12: RESRAD-Offsite 3.1 Output for Area 3.1 Am-241

RESRAD-OFFSITE, Version 3.1      TM Limit = 30 days      05/04/2016 13:17 Page 21  
 Parent Dose Report  
 Title : RESRAD-OFFSITE Default Parameters  
 File : AREA 3.1 FARMER AM.ROF

## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	RESRAD computed	Parameter Name
AIRT	Joint Frequency in SW Sector				
AIRT	for wind speed class 3 and stability class A	2.400E-04	0.000E+00	---	DFREQ(3,1,11)
AIRT	for wind speed class 3 and stability class B	2.400E-04	0.000E+00	---	DFREQ(3,2,11)
AIRT	for wind speed class 3 and stability class C	2.700E-04	0.000E+00	---	DFREQ(3,3,11)
AIRT	for wind speed class 3 and stability class D	7.100E-04	0.000E+00	---	DFREQ(3,4,11)
AIRT	for wind speed class 3 and stability class E	0.000E+00	0.000E+00	---	DFREQ(3,5,11)
AIRT	for wind speed class 3 and stability class F	0.000E+00	0.000E+00	---	DFREQ(3,6,11)
AIRT	Joint Frequency in SW Sector				
AIRT	for wind speed class 4 and stability class A	0.000E+00	0.000E+00	---	DFREQ(4,1,11)
AIRT	for wind speed class 4 and stability class B	0.000E+00	0.000E+00	---	DFREQ(4,2,11)
AIRT	for wind speed class 4 and stability class C	0.000E+00	0.000E+00	---	DFREQ(4,3,11)
AIRT	for wind speed class 4 and stability class D	0.000E+00	0.000E+00	---	DFREQ(4,4,11)
AIRT	for wind speed class 4 and stability class E	0.000E+00	0.000E+00	---	DFREQ(4,5,11)
AIRT	for wind speed class 4 and stability class F	0.000E+00	0.000E+00	---	DFREQ(4,6,11)
AIRT	Joint Frequency in SW Sector				
AIRT	for wind speed class 5 and stability class A	0.000E+00	0.000E+00	---	DFREQ(5,1,11)
AIRT	for wind speed class 5 and stability class B	0.000E+00	0.000E+00	---	DFREQ(5,2,11)
AIRT	for wind speed class 5 and stability class C	0.000E+00	0.000E+00	---	DFREQ(5,3,11)
AIRT	for wind speed class 5 and stability class D	0.000E+00	0.000E+00	---	DFREQ(5,4,11)
AIRT	for wind speed class 5 and stability class E	0.000E+00	0.000E+00	---	DFREQ(5,5,11)
AIRT	for wind speed class 5 and stability class F	0.000E+00	0.000E+00	---	DFREQ(5,6,11)
AIRT	Joint Frequency in SW Sector				
AIRT	for wind speed class 6 and stability class A	0.000E+00	0.000E+00	---	DFREQ(6,1,11)
AIRT	for wind speed class 6 and stability class B	0.000E+00	0.000E+00	---	DFREQ(6,2,11)
AIRT	for wind speed class 6 and stability class C	0.000E+00	0.000E+00	---	DFREQ(6,3,11)
AIRT	for wind speed class 6 and stability class D	0.000E+00	0.000E+00	---	DFREQ(6,4,11)
AIRT	for wind speed class 6 and stability class E	0.000E+00	0.000E+00	---	DFREQ(6,5,11)
AIRT	for wind speed class 6 and stability class F	0.000E+00	0.000E+00	---	DFREQ(6,6,11)
AIRT	Joint Frequency in WSW Sector				
AIRT	for wind speed class 1 and stability class A	0.000E+00	0.000E+00	---	DFREQ(1,1,12)
AIRT	for wind speed class 1 and stability class B	5.000E-05	0.000E+00	---	DFREQ(1,2,12)
AIRT	for wind speed class 1 and stability class C	7.000E-05	0.000E+00	---	DFREQ(1,3,12)
AIRT	for wind speed class 1 and stability class D	2.200E-03	0.000E+00	---	DFREQ(1,4,12)
AIRT	for wind speed class 1 and stability class E	1.320E-03	0.000E+00	---	DFREQ(1,5,12)
AIRT	for wind speed class 1 and stability class F	4.200E-04	0.000E+00	---	DFREQ(1,6,12)
AIRT	Joint Frequency in WSW Sector				
AIRT	for wind speed class 2 and stability class A	2.700E-04	0.000E+00	---	DFREQ(2,1,12)
AIRT	for wind speed class 2 and stability class B	3.200E-04	0.000E+00	---	DFREQ(2,2,12)
AIRT	for wind speed class 2 and stability class C	4.400E-04	0.000E+00	---	DFREQ(2,3,12)
AIRT	for wind speed class 2 and stability class D	3.480E-03	0.000E+00	---	DFREQ(2,4,12)
AIRT	for wind speed class 2 and stability class E	2.000E-04	0.000E+00	---	DFREQ(2,5,12)
AIRT	for wind speed class 2 and stability class F	0.000E+00	0.000E+00	---	DFREQ(2,6,12)

# Appendix H12: RESRAD-Offsite 3.1 Output for Area 3.1 Am-241

RESRAD-OFFSITE, Version 3.1      T4 Limit = 30 days      05/04/2016 13:17 Page 22  
 Parent Dose Report  
 Title : RESRAD-OFFSITE Default Parameters  
 File : AREA 3.1 FARMER AM.ROF

## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	RESRAD computed	Parameter Name
AIRT	Joint Frequency in WSW Sector				
AIRT	for wind speed class 3 and stability class A	2.900E-04	0.000E+00	---	DFREQ(3,1,12)
AIRT	for wind speed class 3 and stability class B	1.000E-04	0.000E+00	---	DFREQ(3,2,12)
AIRT	for wind speed class 3 and stability class C	1.500E-04	0.000E+00	---	DFREQ(3,3,12)
AIRT	for wind speed class 3 and stability class D	2.860E-03	0.000E+00	---	DFREQ(3,4,12)
AIRT	for wind speed class 3 and stability class E	0.000E+00	0.000E+00	---	DFREQ(3,5,12)
AIRT	for wind speed class 3 and stability class F	0.000E+00	0.000E+00	---	DFREQ(3,6,12)
AIRT	Joint Frequency in WSW Sector				
AIRT	for wind speed class 4 and stability class A	0.000E+00	0.000E+00	---	DFREQ(4,1,12)
AIRT	for wind speed class 4 and stability class B	0.000E+00	0.000E+00	---	DFREQ(4,2,12)
AIRT	for wind speed class 4 and stability class C	0.000E+00	0.000E+00	---	DFREQ(4,3,12)
AIRT	for wind speed class 4 and stability class D	2.000E-04	0.000E+00	---	DFREQ(4,4,12)
AIRT	for wind speed class 4 and stability class E	0.000E+00	0.000E+00	---	DFREQ(4,5,12)
AIRT	for wind speed class 4 and stability class F	0.000E+00	0.000E+00	---	DFREQ(4,6,12)
AIRT	Joint Frequency in WSW Sector				
AIRT	for wind speed class 5 and stability class A	0.000E+00	0.000E+00	---	DFREQ(5,1,12)
AIRT	for wind speed class 5 and stability class B	0.000E+00	0.000E+00	---	DFREQ(5,2,12)
AIRT	for wind speed class 5 and stability class C	0.000E+00	0.000E+00	---	DFREQ(5,3,12)
AIRT	for wind speed class 5 and stability class D	0.000E+00	0.000E+00	---	DFREQ(5,4,12)
AIRT	for wind speed class 5 and stability class E	0.000E+00	0.000E+00	---	DFREQ(5,5,12)
AIRT	for wind speed class 5 and stability class F	0.000E+00	0.000E+00	---	DFREQ(5,6,12)
AIRT	Joint Frequency in WSW Sector				
AIRT	for wind speed class 6 and stability class A	0.000E+00	0.000E+00	---	DFREQ(6,1,12)
AIRT	for wind speed class 6 and stability class B	0.000E+00	0.000E+00	---	DFREQ(6,2,12)
AIRT	for wind speed class 6 and stability class C	0.000E+00	0.000E+00	---	DFREQ(6,3,12)
AIRT	for wind speed class 6 and stability class D	0.000E+00	0.000E+00	---	DFREQ(6,4,12)
AIRT	for wind speed class 6 and stability class E	0.000E+00	0.000E+00	---	DFREQ(6,5,12)
AIRT	for wind speed class 6 and stability class F	0.000E+00	0.000E+00	---	DFREQ(6,6,12)
AIRT	Joint Frequency in W Sector				
AIRT	for wind speed class 1 and stability class A	0.000E+00	0.000E+00	---	DFREQ(1,1,13)
AIRT	for wind speed class 1 and stability class B	0.000E+00	0.000E+00	---	DFREQ(1,2,13)
AIRT	for wind speed class 1 and stability class C	5.000E-05	0.000E+00	---	DFREQ(1,3,13)
AIRT	for wind speed class 1 and stability class D	2.520E-03	0.000E+00	---	DFREQ(1,4,13)
AIRT	for wind speed class 1 and stability class E	2.330E-03	0.000E+00	---	DFREQ(1,5,13)
AIRT	for wind speed class 1 and stability class F	1.030E-03	0.000E+00	---	DFREQ(1,6,13)
AIRT	Joint Frequency in W Sector				
AIRT	for wind speed class 2 and stability class A	3.900E-04	0.000E+00	---	DFREQ(2,1,13)
AIRT	for wind speed class 2 and stability class B	3.700E-04	0.000E+00	---	DFREQ(2,2,13)
AIRT	for wind speed class 2 and stability class C	4.200E-04	0.000E+00	---	DFREQ(2,3,13)
AIRT	for wind speed class 2 and stability class D	3.940E-03	0.000E+00	---	DFREQ(2,4,13)
AIRT	for wind speed class 2 and stability class E	3.700E-04	0.000E+00	---	DFREQ(2,5,13)
AIRT	for wind speed class 2 and stability class F	2.000E-05	0.000E+00	---	DFREQ(2,6,13)

# Appendix H12: RESRAD-Offsite 3.1 Output for Area 3.1 Am-241

RESRAD-OFFSITE, Version 3.1      TM Limit = 30 days      05/04/2016 13:17 Page 23  
 Parent Dose Report  
 Title : RESRAD-OFFSITE Default Parameters  
 File : AREA 3.1 FARMER AM.ROF

## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	RESRAD computed	Parameter Name
AIRT	Joint Frequency in W Sector				
AIRT	for wind speed class 3 and stability class A	2.200E-04	0.000E+00	---	DFREQ(3,1,13)
AIRT	for wind speed class 3 and stability class B	1.700E-04	0.000E+00	---	DFREQ(3,2,13)
AIRT	for wind speed class 3 and stability class C	4.900E-04	0.000E+00	---	DFREQ(3,3,13)
AIRT	for wind speed class 3 and stability class D	3.130E-03	0.000E+00	---	DFREQ(3,4,13)
AIRT	for wind speed class 3 and stability class E	1.000E-04	0.000E+00	---	DFREQ(3,5,13)
AIRT	for wind speed class 3 and stability class F	0.000E+00	0.000E+00	---	DFREQ(3,6,13)
AIRT	Joint Frequency in W Sector				
AIRT	for wind speed class 4 and stability class A	0.000E+00	0.000E+00	---	DFREQ(4,1,13)
AIRT	for wind speed class 4 and stability class B	0.000E+00	0.000E+00	---	DFREQ(4,2,13)
AIRT	for wind speed class 4 and stability class C	1.000E-04	0.000E+00	---	DFREQ(4,3,13)
AIRT	for wind speed class 4 and stability class D	2.000E-05	0.000E+00	---	DFREQ(4,4,13)
AIRT	for wind speed class 4 and stability class E	0.000E+00	0.000E+00	---	DFREQ(4,5,13)
AIRT	for wind speed class 4 and stability class F	0.000E+00	0.000E+00	---	DFREQ(4,6,13)
AIRT	Joint Frequency in W Sector				
AIRT	for wind speed class 5 and stability class A	0.000E+00	0.000E+00	---	DFREQ(5,1,13)
AIRT	for wind speed class 5 and stability class B	0.000E+00	0.000E+00	---	DFREQ(5,2,13)
AIRT	for wind speed class 5 and stability class C	0.000E+00	0.000E+00	---	DFREQ(5,3,13)
AIRT	for wind speed class 5 and stability class D	0.000E+00	0.000E+00	---	DFREQ(5,4,13)
AIRT	for wind speed class 5 and stability class E	0.000E+00	0.000E+00	---	DFREQ(5,5,13)
AIRT	for wind speed class 5 and stability class F	0.000E+00	0.000E+00	---	DFREQ(5,6,13)
AIRT	Joint Frequency in W Sector				
AIRT	for wind speed class 6 and stability class A	0.000E+00	0.000E+00	---	DFREQ(6,1,13)
AIRT	for wind speed class 6 and stability class B	0.000E+00	0.000E+00	---	DFREQ(6,2,13)
AIRT	for wind speed class 6 and stability class C	0.000E+00	0.000E+00	---	DFREQ(6,3,13)
AIRT	for wind speed class 6 and stability class D	0.000E+00	0.000E+00	---	DFREQ(6,4,13)
AIRT	for wind speed class 6 and stability class E	0.000E+00	0.000E+00	---	DFREQ(6,5,13)
AIRT	for wind speed class 6 and stability class F	0.000E+00	0.000E+00	---	DFREQ(6,6,13)
AIRT	Joint Frequency in WNW Sector				
AIRT	for wind speed class 1 and stability class A	0.000E+00	0.000E+00	---	DFREQ(1,1,14)
AIRT	for wind speed class 1 and stability class B	0.000E+00	0.000E+00	---	DFREQ(1,2,14)
AIRT	for wind speed class 1 and stability class C	7.000E-05	0.000E+00	---	DFREQ(1,3,14)
AIRT	for wind speed class 1 and stability class D	3.430E-03	0.000E+00	---	DFREQ(1,4,14)
AIRT	for wind speed class 1 and stability class E	2.790E-03	0.000E+00	---	DFREQ(1,5,14)
AIRT	for wind speed class 1 and stability class F	2.350E-03	0.000E+00	---	DFREQ(1,6,14)
AIRT	Joint Frequency in WNW Sector				
AIRT	for wind speed class 2 and stability class A	1.700E-04	0.000E+00	---	DFREQ(2,1,14)
AIRT	for wind speed class 2 and stability class B	2.400E-04	0.000E+00	---	DFREQ(2,2,14)
AIRT	for wind speed class 2 and stability class C	5.400E-04	0.000E+00	---	DFREQ(2,3,14)
AIRT	for wind speed class 2 and stability class D	7.690E-03	0.000E+00	---	DFREQ(2,4,14)
AIRT	for wind speed class 2 and stability class E	1.790E-03	0.000E+00	---	DFREQ(2,5,14)
AIRT	for wind speed class 2 and stability class F	3.400E-04	0.000E+00	---	DFREQ(2,6,14)

# Appendix H12: RESRAD-Offsite 3.1 Output for Area 3.1 Am-241

RESRAD-OFFSITE, Version 3.1      TM Limit = 30 days      05/04/2016 13:17 Page 24  
 Parent Dose Report  
 Title : RESRAD-OFFSITE Default Parameters  
 File : AREA 3.1 FARMER AM.ROF

## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	RESRAD computed	Parameter Name
AIRT	Joint Frequency in WNW Sector				
AIRT	for wind speed class 3 and stability class A	1.500E-04	0.000E+00	---	DFREQ(3,1,14)
AIRT	for wind speed class 3 and stability class B	1.000E-04	0.000E+00	---	DFREQ(3,2,14)
AIRT	for wind speed class 3 and stability class C	3.400E-04	0.000E+00	---	DFREQ(3,3,14)
AIRT	for wind speed class 3 and stability class D	4.950E-03	0.000E+00	---	DFREQ(3,4,14)
AIRT	for wind speed class 3 and stability class E	1.700E-04	0.000E+00	---	DFREQ(3,5,14)
AIRT	for wind speed class 3 and stability class F	2.000E-05	0.000E+00	---	DFREQ(3,6,14)
AIRT	Joint Frequency in WNW Sector				
AIRT	for wind speed class 4 and stability class A	0.000E+00	0.000E+00	---	DFREQ(4,1,14)
AIRT	for wind speed class 4 and stability class B	0.000E+00	0.000E+00	---	DFREQ(4,2,14)
AIRT	for wind speed class 4 and stability class C	0.000E+00	0.000E+00	---	DFREQ(4,3,14)
AIRT	for wind speed class 4 and stability class D	5.000E-05	0.000E+00	---	DFREQ(4,4,14)
AIRT	for wind speed class 4 and stability class E	0.000E+00	0.000E+00	---	DFREQ(4,5,14)
AIRT	for wind speed class 4 and stability class F	0.000E+00	0.000E+00	---	DFREQ(4,6,14)
AIRT	Joint Frequency in WNW Sector				
AIRT	for wind speed class 5 and stability class A	0.000E+00	0.000E+00	---	DFREQ(5,1,14)
AIRT	for wind speed class 5 and stability class B	0.000E+00	0.000E+00	---	DFREQ(5,2,14)
AIRT	for wind speed class 5 and stability class C	0.000E+00	0.000E+00	---	DFREQ(5,3,14)
AIRT	for wind speed class 5 and stability class D	0.000E+00	0.000E+00	---	DFREQ(5,4,14)
AIRT	for wind speed class 5 and stability class E	0.000E+00	0.000E+00	---	DFREQ(5,5,14)
AIRT	for wind speed class 5 and stability class F	0.000E+00	0.000E+00	---	DFREQ(5,6,14)
AIRT	Joint Frequency in WNW Sector				
AIRT	for wind speed class 6 and stability class A	0.000E+00	0.000E+00	---	DFREQ(6,1,14)
AIRT	for wind speed class 6 and stability class B	0.000E+00	0.000E+00	---	DFREQ(6,2,14)
AIRT	for wind speed class 6 and stability class C	0.000E+00	0.000E+00	---	DFREQ(6,3,14)
AIRT	for wind speed class 6 and stability class D	0.000E+00	0.000E+00	---	DFREQ(6,4,14)
AIRT	for wind speed class 6 and stability class E	0.000E+00	0.000E+00	---	DFREQ(6,5,14)
AIRT	for wind speed class 6 and stability class F	0.000E+00	0.000E+00	---	DFREQ(6,6,14)
AIRT	Joint Frequency in NW Sector				
AIRT	for wind speed class 1 and stability class A	0.000E+00	0.000E+00	---	DFREQ(1,1,15)
AIRT	for wind speed class 1 and stability class B	2.000E-05	0.000E+00	---	DFREQ(1,2,15)
AIRT	for wind speed class 1 and stability class C	1.200E-04	0.000E+00	---	DFREQ(1,3,15)
AIRT	for wind speed class 1 and stability class D	4.680E-03	0.000E+00	---	DFREQ(1,4,15)
AIRT	for wind speed class 1 and stability class E	6.730E-03	0.000E+00	---	DFREQ(1,5,15)
AIRT	for wind speed class 1 and stability class F	5.460E-03	0.000E+00	---	DFREQ(1,6,15)
AIRT	Joint Frequency in NW Sector				
AIRT	for wind speed class 2 and stability class A	2.200E-04	0.000E+00	---	DFREQ(2,1,15)
AIRT	for wind speed class 2 and stability class B	3.700E-04	0.000E+00	---	DFREQ(2,2,15)
AIRT	for wind speed class 2 and stability class C	9.500E-04	0.000E+00	---	DFREQ(2,3,15)
AIRT	for wind speed class 2 and stability class D	1.616E-02	0.000E+00	---	DFREQ(2,4,15)
AIRT	for wind speed class 2 and stability class E	1.060E-02	0.000E+00	---	DFREQ(2,5,15)
AIRT	for wind speed class 2 and stability class F	1.760E-03	0.000E+00	---	DFREQ(2,6,15)

# Appendix H12: RESRAD-Offsite 3.1 Output for Area 3.1 Am-241

RESRAD-OFFSITE, Version 3.1 T4 Limit = 30 days 05/04/2016 13:17 Page 25  
 Parent Dose Report  
 Title : RESRAD-OFFSITE Default Parameters  
 File : AREA 3.1 FARMER AM.ROF

## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	RESRAD computed	Parameter Name
AIRT	Joint Frequency in NW Sector				
AIRT	for wind speed class 3 and stability class A	2.400E-04	0.000E+00	---	DFREQ(3,1,15)
AIRT	for wind speed class 3 and stability class B	3.900E-04	0.000E+00	---	DFREQ(3,2,15)
AIRT	for wind speed class 3 and stability class C	1.080E-03	0.000E+00	---	DFREQ(3,3,15)
AIRT	for wind speed class 3 and stability class D	1.709E-02	0.000E+00	---	DFREQ(3,4,15)
AIRT	for wind speed class 3 and stability class E	4.870E-03	0.000E+00	---	DFREQ(3,5,15)
AIRT	for wind speed class 3 and stability class F	7.000E-05	0.000E+00	---	DFREQ(3,6,15)
AIRT	Joint Frequency in NW Sector				
AIRT	for wind speed class 4 and stability class A	0.000E+00	0.000E+00	---	DFREQ(4,1,15)
AIRT	for wind speed class 4 and stability class B	5.000E-05	0.000E+00	---	DFREQ(4,2,15)
AIRT	for wind speed class 4 and stability class C	5.000E-05	0.000E+00	---	DFREQ(4,3,15)
AIRT	for wind speed class 4 and stability class D	2.790E-03	0.000E+00	---	DFREQ(4,4,15)
AIRT	for wind speed class 4 and stability class E	7.000E-05	0.000E+00	---	DFREQ(4,5,15)
AIRT	for wind speed class 4 and stability class F	0.000E+00	0.000E+00	---	DFREQ(4,6,15)
AIRT	Joint Frequency in NW Sector				
AIRT	for wind speed class 5 and stability class A	0.000E+00	0.000E+00	---	DFREQ(5,1,15)
AIRT	for wind speed class 5 and stability class B	0.000E+00	0.000E+00	---	DFREQ(5,2,15)
AIRT	for wind speed class 5 and stability class C	0.000E+00	0.000E+00	---	DFREQ(5,3,15)
AIRT	for wind speed class 5 and stability class D	1.000E-04	0.000E+00	---	DFREQ(5,4,15)
AIRT	for wind speed class 5 and stability class E	0.000E+00	0.000E+00	---	DFREQ(5,5,15)
AIRT	for wind speed class 5 and stability class F	0.000E+00	0.000E+00	---	DFREQ(5,6,15)
AIRT	Joint Frequency in NW Sector				
AIRT	for wind speed class 6 and stability class A	0.000E+00	0.000E+00	---	DFREQ(6,1,15)
AIRT	for wind speed class 6 and stability class B	0.000E+00	0.000E+00	---	DFREQ(6,2,15)
AIRT	for wind speed class 6 and stability class C	0.000E+00	0.000E+00	---	DFREQ(6,3,15)
AIRT	for wind speed class 6 and stability class D	0.000E+00	0.000E+00	---	DFREQ(6,4,15)
AIRT	for wind speed class 6 and stability class E	0.000E+00	0.000E+00	---	DFREQ(6,5,15)
AIRT	for wind speed class 6 and stability class F	0.000E+00	0.000E+00	---	DFREQ(6,6,15)
AIRT	Joint Frequency in NNW Sector				
AIRT	for wind speed class 1 and stability class A	5.000E-05	0.000E+00	---	DFREQ(1,1,16)
AIRT	for wind speed class 1 and stability class B	5.000E-05	0.000E+00	---	DFREQ(1,2,16)
AIRT	for wind speed class 1 and stability class C	5.000E-05	0.000E+00	---	DFREQ(1,3,16)
AIRT	for wind speed class 1 and stability class D	4.410E-03	0.000E+00	---	DFREQ(1,4,16)
AIRT	for wind speed class 1 and stability class E	1.408E-02	0.000E+00	---	DFREQ(1,5,16)
AIRT	for wind speed class 1 and stability class F	1.741E-02	0.000E+00	---	DFREQ(1,6,16)
AIRT	Joint Frequency in NNW Sector				
AIRT	for wind speed class 2 and stability class A	1.500E-04	0.000E+00	---	DFREQ(2,1,16)
AIRT	for wind speed class 2 and stability class B	4.700E-04	0.000E+00	---	DFREQ(2,2,16)
AIRT	for wind speed class 2 and stability class C	9.500E-04	0.000E+00	---	DFREQ(2,3,16)
AIRT	for wind speed class 2 and stability class D	1.307E-02	0.000E+00	---	DFREQ(2,4,16)
AIRT	for wind speed class 2 and stability class E	1.694E-02	0.000E+00	---	DFREQ(2,5,16)
AIRT	for wind speed class 2 and stability class F	3.330E-03	0.000E+00	---	DFREQ(2,6,16)

# Appendix H12: RESRAD-Offsite 3.1 Output for Area 3.1 Am-241

RESRAD-OFFSITE, Version 3.1 T4 Limit = 30 days 05/04/2016 13:17 Page 26  
 Parent Dose Report  
 Title : RESRAD-OFFSITE Default Parameters  
 File : AREA 3.1 FARMER AM.ROF

## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	RESRAD computed	Parameter Name
AIRT	Joint Frequency in NNW Sector				
AIRT	for wind speed class 3 and stability class A	2.400E-04	0.000E+00	---	DFREQ(3,1,16)
AIRT	for wind speed class 3 and stability class B	9.800E-04	0.000E+00	---	DFREQ(3,2,16)
AIRT	for wind speed class 3 and stability class C	1.030E-03	0.000E+00	---	DFREQ(3,3,16)
AIRT	for wind speed class 3 and stability class D	1.951E-02	0.000E+00	---	DFREQ(3,4,16)
AIRT	for wind speed class 3 and stability class E	1.165E-02	0.000E+00	---	DFREQ(3,5,16)
AIRT	for wind speed class 3 and stability class F	2.400E-04	0.000E+00	---	DFREQ(3,6,16)
AIRT	Joint Frequency in NNW Sector				
AIRT	for wind speed class 4 and stability class A	0.000E+00	0.000E+00	---	DFREQ(4,1,16)
AIRT	for wind speed class 4 and stability class B	0.000E+00	0.000E+00	---	DFREQ(4,2,16)
AIRT	for wind speed class 4 and stability class C	2.200E-04	0.000E+00	---	DFREQ(4,3,16)
AIRT	for wind speed class 4 and stability class D	6.610E-03	0.000E+00	---	DFREQ(4,4,16)
AIRT	for wind speed class 4 and stability class E	2.300E-03	0.000E+00	---	DFREQ(4,5,16)
AIRT	for wind speed class 4 and stability class F	0.000E+00	0.000E+00	---	DFREQ(4,6,16)
AIRT	Joint Frequency in NNW Sector				
AIRT	for wind speed class 5 and stability class A	0.000E+00	0.000E+00	---	DFREQ(5,1,16)
AIRT	for wind speed class 5 and stability class B	0.000E+00	0.000E+00	---	DFREQ(5,2,16)
AIRT	for wind speed class 5 and stability class C	0.000E+00	0.000E+00	---	DFREQ(5,3,16)
AIRT	for wind speed class 5 and stability class D	7.100E-04	0.000E+00	---	DFREQ(5,4,16)
AIRT	for wind speed class 5 and stability class E	2.700E-04	0.000E+00	---	DFREQ(5,5,16)
AIRT	for wind speed class 5 and stability class F	0.000E+00	0.000E+00	---	DFREQ(5,6,16)
AIRT	Joint Frequency in NNW Sector				
AIRT	for wind speed class 6 and stability class A	0.000E+00	0.000E+00	---	DFREQ(6,1,16)
AIRT	for wind speed class 6 and stability class B	0.000E+00	0.000E+00	---	DFREQ(6,2,16)
AIRT	for wind speed class 6 and stability class C	0.000E+00	0.000E+00	---	DFREQ(6,3,16)
AIRT	for wind speed class 6 and stability class D	7.000E-05	0.000E+00	---	DFREQ(6,4,16)
AIRT	for wind speed class 6 and stability class E	0.000E+00	0.000E+00	---	DFREQ(6,5,16)
AIRT	for wind speed class 6 and stability class F	0.000E+00	0.000E+00	---	DFREQ(6,6,16)
AIRT	Spacing of points used for areal integration, (m)	1.000E+01	1.000E+01	---	ATGRID
GWTR	fractional accuracy desired - convergence criteria	1.000E-03	1.000E-03	---	EPS
GWTR	Distance from d/g edge of contamination to Well, (m)	4.100E+01	1.000E+02	---	OFFFLPAQW
GWTR	Contamination to Well c/c distance normal to flow, m	-2.798E-01	0.000E+00	---	OFFFLNAQW
GWTR	Distance from d/g edge of cz to surface water, (m)	-2.166E+02	4.500E+02	---	OFFFLPAQS
GWTR	Contamination to near edge of swb,c/c normal to flow	-2.917E+02	-1.500E+02	---	OFFFLNAQSN
GWTR	Contamination to far edge of swb, c/c normal to flow	-2.412E+02	1.500E+02	---	OFFFLNAQSF
GWTR	Number of main sub zones in primary contamination	1	1	---	NPCZ
GWTR	Number of minor sub zones in last main PC sub zone	1	1	---	NPCZF
GWTR	Number of main sub zones in each unsaturated stratum	1	1	---	NPSS
GWTR	Number of minor sub zones in last main UZ sub zone	1	1	---	NPSSF
GWTR	Number of main sub zones in saturated stratum	1	1	---	NAQS
GWTR	Number of minor sub zones in last main SZ sub zone	1	1	---	NAQSF
GWTR	Distribution coefficient and longitudinal dispersion	1	1	---	

1 = Nuclide specific distribution coefficients in all subzones. Longitudinal dispersion in all but the subzone of transformation.

# Appendix H12: RESRAD-Offsite 3.1 Output for Area 3.1 Am-241

RESRAD-OFFSITE, Version 3.1      T<sub>1/2</sub> Limit = 30 days      05/04/2016 13:17 Page 27  
 Parent Dose Report  
 Title : RESRAD-OFFSITE Default Parameters  
 File : AREA 3.1 FARMER AM.ROF

## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	RESRAD computed	Parameter Name
GWTR	Retardation factor flag for groundwater transport	0	0	---	
	0 = (total porosity + distribution coefficient*dry bulk density) / total porosity				
USZN	Number of unsaturated zone strata	1	1	---	NS
USZN	Unsat. zone 1, thickness (m)	2.000E+00	4.000E+00	---	H(1)
USZN	Unsat. zone 1, soil density (g/cm**3)	1.700E+00	1.500E+00	---	DENSUZ(1)
USZN	Unsat. zone 1, total porosity	3.600E-01	4.000E-01	---	TPUZ(1)
USZN	Unsat. zone 1, effective porosity	2.500E-01	2.000E-01	---	EPUZ(1)
USZN	Unsat. zone 1, field capacity	2.000E-01	3.000E-01	---	FCUZ(1)
USZN	Unsat. zone 1, hydraulic conductivity (m/yr)	1.400E+02	1.000E+01	---	HCUZ(1)
USZN	Unsat. zone 1, soil-specific b parameter	1.400E+00	5.300E+00	---	BUZ(1)
USZN	Unsat. zone 1, longitudinal dispersivity (m)	1.000E-01	1.000E-01	---	ALPHALU(1)
SZNE	Well pump intake depth (m below water table)	5.000E+00	1.000E+01	---	DWIBWT
SZNE	Depth of aquifer contributing to surface water body	5.000E+00	1.000E+01	---	DPTHAQSW
SZNE	Thickness of saturated zone (m)	1.000E+02	1.000E+02	---	DPTHAQ
SZNE	Density of saturated zone (g/cm**3)	1.700E+00	1.500E+00	---	DENSAQ
SZNE	Saturated zone total porosity	3.600E-01	4.000E-01	---	TPSZ
SZNE	Saturated zone effective porosity	2.500E-01	2.000E-01	---	EPSZ
SZNE	Saturated zone hydraulic conductivity (m/yr)	1.400E+03	1.000E+02	---	HCSZ
SZNE	Saturated zone hydraulic gradient to well	3.000E-02	2.000E-02	---	HGW
SZNE	Satur. zone hydraulic gradient to surface water body	3.000E-02	2.000E-02	---	HGSW
SZNE	longitudinal dispersivity to well (m)	3.000E+00	3.000E+00	---	ALPHALOW
SZNE	longitudinal dispersivity to SWB (m)	1.000E+01	1.000E+01	---	ALPHALOSW
SZNE	lateral (horizontal) dispersivity to well (m)	4.000E-01	4.000E-01	---	ALPHATW
SZNE	lateral (horizontal) dispersivity to SWB (m)	1.000E+00	1.000E+00	---	ALPHATSW
SZNE	lateral (vertical) dispersivity to well (m)	2.000E-02	2.000E-02	---	ALPHAVW
SZNE	lateral (vertical) dispersivity to SWB (m)	6.000E-02	6.000E-02	---	ALPHAVSW
SZNE	Irrigation rate over aquifer to well (m/yr)	not used	0.000E+00	---	RIAQW
SZNE	Irrigation rate over aquifer to SWB (m/yr)	not used	0.000E+00	---	RIAQSW
SZNE	Evapotranspiration coefficient over aquifer to well	not used	1.000E+00	---	EVAPTRAQW
SZNE	Evapotranspiration coefficient over aquifer to SWB	not used	1.000E+00	---	EVAPTRAQSW
SZNE	Runoff coefficient over aquifer to well	not used	1.000E+00	---	RUNOFFAQW
SZNE	Runoff coefficient over aquifer to SWB	not used	1.000E+00	---	RUNOFFAQSW
SZNE	Concentration of mobile colloids in the aquifer	0.000E+00	0.000E+00	---	CCOL
SZNE	Water - Soil Distribution coefficient of colloids	0.000E+00	0.000E+00	---	K1Col
SZNE	Water - Mobile Colloids Distribution coefficient	0.000E+00	0.000E+00	---	K3Col
WTRU	Drinking water intake (L/yr)	7.300E+02	5.100E+02	---	DWI
WTRU	Fraction of drinking water from surface water	0.000E+00	0.000E+00	---	FSWD
WTRU	Fraction of drinking water from well water	1.000E+00	1.000E+00	---	FWWD
WTRU	Fraction of household water from surface water	0.000E+00	0.000E+00	---	FSWHH
WTRU	Fraction of household water from well water	1.000E+00	1.000E+00	---	FWWHH
WTRU	Livestock water intake for meat 1 (L/day)	5.000E+01	5.000E+01	---	LWI(1)
WTRU	Fraction of livestock water 1 from surface water	0.000E+00	0.000E+00	---	FSWL1V(1)
WTRU	Fraction of livestock water 1 from well water	1.000E+00	1.000E+00	---	FWWL1V(1)
WTRU	Livestock water intake for milk (L/day)	not used	1.600E+02	---	LWI(2)

# Appendix H12: RESRAD-Offsite 3.1 Output for Area 3.1 Am-241

RESRAD-OFFSITE, Version 3.1      T4 Limit = 30 days      05/04/2016 13:17 Page 28  
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 Title : RESRAD-OFFSITE Default Parameters  
 File : AREA 3.1 FARMER AM.ROF

## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	RESRAD computed	Parameter Name
WTRU	Fraction of dairy cow water from surface water	not used	0.000E+00	---	FSWL(2)
WTRU	Fraction of dairy cow water from well water	not used	1.000E+00	---	FWWL(2)
WTRU	Irrigation rate in Agricultural Area 1 (m/yr)	0.000E+00	2.000E-01	---	RIRRIG(1)
WTRU	Fraction of irrigation water 1 from surface water	0.000E+00	0.000E+00	---	FSWIR(1)
WTRU	Fraction of irrigation water 1 from well water	1.000E+00	1.000E+00	---	FWWIR(1)
WTRU	Irrigation rate in Agricultural Area 2 (m/yr)	0.000E+00	2.000E-01	---	RIRRIG(2)
WTRU	Fraction of irrigation water 2 from surface water	0.000E+00	0.000E+00	---	FSWIR(2)
WTRU	Fraction of irrigation water 2 from well water	1.000E+00	1.000E+00	---	FWWIR(2)
WTRU	Irrigation rate in Agricultural Area 3 (m/yr)	0.000E+00	2.000E-01	---	RIRRIG(3)
WTRU	Fraction of irrigation water 3 from surface water	0.000E+00	0.000E+00	---	FSWIR(3)
WTRU	Fraction of irrigation water 3 from well water	1.000E+00	1.000E+00	---	FWWIR(3)
WTRU	Irrigation rate in Agricultural Area 4 (m/yr)	4.700E-01	2.000E-01	---	RIRRIG(4)
WTRU	Fraction of irrigation water 4 from surface water	0.000E+00	0.000E+00	---	FSWIR(4)
WTRU	Fraction of irrigation water 4 from well water	1.000E+00	1.000E+00	---	FWWIR(4)
WTRU	Irrigation rate in Offsite dwelling site (m/yr)	0.000E+00	2.000E-01	---	RIRRIGDWELL
WTRU	Fraction of irrigation water from surface water	0.000E+00	0.000E+00	---	FSWIRDWELL
WTRU	Fraction of irrigation water from well water	1.000E+00	1.000E+00	---	FWWIRDWELL
WTRU	Well pumping rate (m <sup>3</sup> /yr)	3.190E+04	5.100E+03	---	UW
SWBY	Sediment delivery ratio	1.000E+00	1.000E+00	---	SDR
SWBY	Volume of surface water body	1.500E+04	1.500E+05	---	VLAKE
SWBY	Mean residence time of water in surface water body	1.000E+00	1.000E+00	---	TLAKE
SWBY	Surface area of water in surface water body	1.270E+04	9.000E+04	---	ALAKE
INGE	Fish consumption (kg/yr)	not used	5.400E+00	---	DFI(1)
INGE	Fraction of Fish from affected area	not used	5.000E-01	---	FFISH(1)
INGE	Other Aquatic food consumption (kg/yr)	not used	9.000E-01	---	DFI(2)
INGE	Fraction of Aquatic food from affected area	not used	5.000E-01	---	FFISH(2)
INGE	Non-Leafy vegetables consumption (kg/yr)	not used	1.600E+02	---	DVI(1)
INGE	Fraction of vegetable 1 from affected area	not used	5.000E-01	---	FVEG(1)
INGE	Leafy vegetable consumption (kg/yr)	not used	1.400E+01	---	DVI(2)
INGE	Fraction of vegetable 2 from affected area	not used	5.000E-01	---	FVEG(2)
INGE	Meat 1 consumption (kg/yr)	6.500E+01	6.300E+01	---	DMI(1)
INGE	Fraction of meat 1 from affected area	1.000E+00	1.000E+00	---	FMEMI(1)
INGE	Milk consumption (L/yr)	not used	9.200E+01	---	DMI(2)
INGE	Fraction of milk from affected area	not used	1.000E+00	---	FMEMI(2)
INGE	Soil ingestion rate (g/yr)	1.830E+01	3.650E+01	---	SOIL
VEGE	Wet weight crop yield for Non-Leafy (kg/m <sup>2</sup> )	not used	7.000E-01	---	YIELD(1)
VEGE	Growing Season for Non-Leafy (years)	not used	1.700E-01	---	GROWTIME(1)
VEGE	Translocation Factor for Non-Leafy	not used	1.000E-01	---	FOLI_F(1)
VEGE	Weathering Removal Constant for Non-Leafy	not used	2.000E+01	---	RWEATHER(1)
VEGE	Foliar Interception Fraction for dust Non-Leafy	not used	2.500E-01	---	FINTCEPT(1,1)
VEGE	Foliar Interception-n Fract-n for irrigation Non-Leafy	not used	2.500E-01	---	FINTCEPT(1,2)
VEGE	Depth of roots for Non-Leafy (m)	not used	1.200E+00	---	DROOT(1)
VEGE	Wet weight crop yield for Leafy (kg/m <sup>2</sup> )	not used	1.500E+00	---	YIELD(2)
VEGE	Growing Season for Leafy (years)	not used	2.500E-01	---	GROWTIME(2)

# Appendix H12: RESRAD-Offsite 3.1 Output for Area 3.1 Am-241

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 Title : RESRAD-OFFSITE Default Parameters  
 File : AREA 3.1 FARMER AM.ROF

## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	RESRAD computed	Parameter Name
VEGE	Translocation Factor for Leafy	not used	1.000E+00	---	FOLI_F(2)
VEGE	Weathering Removal Constant for Leafy	not used	2.000E+01	---	RWEATHER(2)
VEGE	Foliar Interception Fraction for dust Leafy	not used	2.500E-01	---	FINTCEPT(2,1)
VEGE	Foliar Intercept-n Fract-n for irrigation Leafy	not used	2.500E-01	---	FINTCEPT(2,2)
VEGE	Depth of roots for Leafy (m)	not used	9.000E-01	---	DROOT(2)
VEGE	Wet weight crop yield for Pasture (kg/m**2)	1.100E+00	1.100E+00	---	YIELD(3)
VEGE	Growing Season for Pasture (years)	8.000E-02	8.000E-02	---	GROWTIME(3)
VEGE	Translocation Factor for Pasture	1.000E+00	1.000E+00	---	FOLI_F(3)
VEGE	Weathering Removal Constant for Pasture	1.800E+01	2.000E+01	---	RWEATHER(3)
VEGE	Foliar Interception Fraction for dust Pasture	2.500E-01	2.500E-01	---	FINTCEPT(3,1)
VEGE	Foliar Intercept-n Fract-n for irrigation Pasture	2.500E-01	2.500E-01	---	FINTCEPT(3,2)
VEGE	Depth of roots for Pasture (m)	9.000E-01	9.000E-01	---	DROOT(3)
VEGE	Wet weight crop yield for Grain (kg/m**2)	7.000E-01	7.000E-01	---	YIELD(4)
VEGE	Growing Season for Grain (years)	1.700E-01	1.700E-01	---	GROWTIME(4)
VEGE	Translocation Factor for Grain	1.000E-01	1.000E-01	---	FOLI_F(4)
VEGE	Weathering Removal Constant for Grain	1.800E+01	2.000E+01	---	RWEATHER(4)
VEGE	Foliar Interception Fraction for dust Grain	2.500E-01	2.500E-01	---	FINTCEPT(4,1)
VEGE	Foliar Intercept-n Fract-n for irrigation Grain	2.500E-01	2.500E-01	---	FINTCEPT(4,2)
VEGE	Depth of roots for Grain (m)	9.000E-01	1.200E+00	---	DROOT(4)
LINT	Feed 1 intake by livestock 1 (kg/day)	5.600E+00	1.400E+01	---	LFI(1,1)
LINT	Soil intake with feed 1 by livestock 1 (kg/day)	1.000E-01	1.000E-01	---	LSI(1,1)
LINT	Feed 1 intake by dairy cow (kg/day)	not used	4.400E+01	---	LFI(2,1)
LINT	Soil intake with feed 1 by dairy cow (kg/day)	not used	4.000E-01	---	LSI(2,1)
LINT	Feed 2 intake by livestock 1 (kg/day)	2.170E+01	5.400E+01	---	LFI(1,2)
LINT	Soil intake with feed 2 by livestock 1 (kg/day)	4.000E-01	4.000E-01	---	LSI(1,2)
LINT	Feed 2 intake by dairy cow (kg/day)	not used	1.100E+01	---	LFI(2,2)
LINT	Soil intake with feed 2 by dairy cow (kg/day)	not used	1.000E-01	---	LSI(2,2)
INHE	Inhalation rate (m**3/yr)	8.400E+03	8.400E+03	---	INHALR
INHE	Mass loading above primary contamination (g/m**3)	1.480E-05	1.000E-04	---	MLFD
INHE	Mass loading for inhalation (g/m**3)	1.480E-05	1.000E-04	---	MLINH
INHE	Indoor dust filtration factor, inhalation	1.000E+00	4.000E-01	---	SHF3
INHE	Shielding factor, external gamma	2.730E-01	7.000E-01	---	SHF1
INHE	Shape factor flag, external gamma	-1.000E+00	1.000E+00	noncircular	FS

# Appendix H12: RESRAD-Offsite 3.1 Output for Area 3.1 Am-241

RESRAD-OFFSITE, Version 3.1      T½ Limit = 30 days      05/04/2016 13:17 Page 30  
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Title : RESRAD-OFFSITE Default Parameters  
File : AREA 3.1 FARMER AM.ROF

## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	RESRAD computed	Parameter Name
SEXT	Onsite shape factor array (used if non-circular):				
SEXT	Radii of shape factor array (used if non-circular):				
SEXT	Outer annular radius (m), ring 1:	1.508E+01	6.000E+00	---	RAD_SHAPE( 1)
SEXT	Outer annular radius (m), ring 2:	3.017E+01	1.200E+01	---	RAD_SHAPE( 2)
SEXT	Outer annular radius (m), ring 3:	4.525E+01	1.800E+01	---	RAD_SHAPE( 3)
SEXT	Outer annular radius (m), ring 4:	6.033E+01	2.400E+01	---	RAD_SHAPE( 4)
SEXT	Outer annular radius (m), ring 5:	7.542E+01	3.000E+01	---	RAD_SHAPE( 5)
SEXT	Outer annular radius (m), ring 6:	9.050E+01	3.600E+01	---	RAD_SHAPE( 6)
SEXT	Outer annular radius (m), ring 7:	1.056E+02	4.200E+01	---	RAD_SHAPE( 7)
SEXT	Outer annular radius (m), ring 8:	1.207E+02	4.800E+01	---	RAD_SHAPE( 8)
SEXT	Outer annular radius (m), ring 9:	1.358E+02	5.400E+01	---	RAD_SHAPE( 9)
SEXT	Outer annular radius (m), ring 10:	1.508E+02	6.000E+01	---	RAD_SHAPE(10)
SEXT	Outer annular radius (m), ring 11:	1.659E+02	6.600E+01	---	RAD_SHAPE(11)
SEXT	Outer annular radius (m), ring 12:	1.810E+02	7.200E+01	---	RAD_SHAPE(12)
SEXT	Fractions of annular areas within AREA:				
SEXT	Ring 1	1.000E+00	1.000E+00	---	FRACA( 1)
SEXT	Ring 2	1.000E+00	1.000E+00	---	FRACA( 2)
SEXT	Ring 3	1.000E+00	1.000E+00	---	FRACA( 3)
SEXT	Ring 4	1.000E+00	1.000E+00	---	FRACA( 4)
SEXT	Ring 5	1.000E+00	1.000E+00	---	FRACA( 5)
SEXT	Ring 6	1.000E+00	1.000E+00	---	FRACA( 6)
SEXT	Ring 7	1.000E+00	1.000E+00	---	FRACA( 7)
SEXT	Ring 8	1.000E+00	1.000E+00	---	FRACA( 8)
SEXT	Ring 9	8.000E-01	7.700E-01	---	FRACA( 9)
SEXT	Ring 10	3.800E-01	3.700E-01	---	FRACA(10)
SEXT	Ring 11	1.800E-01	1.700E-01	---	FRACA(11)
SEXT	Ring 12	4.600E-02	3.100E-02	---	FRACA(12)
SEXT	Shape factor array from offsite dwelling:				
SEXT	Radii of shape factor array (used if non-circular):				
SEXT	Outer annular radius (m), ring 13:	5.200E+01	1.325E+01	---	RAD_SHAPE(13)
SEXT	Outer annular radius (m), ring 14:	1.040E+02	2.650E+01	---	RAD_SHAPE(14)
SEXT	Outer annular radius (m), ring 15:	1.560E+02	3.975E+01	---	RAD_SHAPE(15)
SEXT	Outer annular radius (m), ring 16:	2.080E+02	5.300E+01	---	RAD_SHAPE(16)
SEXT	Outer annular radius (m), ring 17:	2.600E+02	6.625E+01	---	RAD_SHAPE(17)
SEXT	Outer annular radius (m), ring 18:	3.120E+02	7.950E+01	---	RAD_SHAPE(18)
SEXT	Outer annular radius (m), ring 19:	3.640E+02	9.275E+01	---	RAD_SHAPE(19)
SEXT	Outer annular radius (m), ring 20:	4.160E+02	1.060E+02	---	RAD_SHAPE(20)
SEXT	Outer annular radius (m), ring 21:	4.680E+02	1.193E+02	---	RAD_SHAPE(21)
SEXT	Outer annular radius (m), ring 22:	5.200E+02	1.325E+02	---	RAD_SHAPE(22)
SEXT	Outer annular radius (m), ring 23:	5.720E+02	1.458E+02	---	RAD_SHAPE(23)
SEXT	Outer annular radius (m), ring 24:	6.240E+02	1.590E+02	---	RAD_SHAPE(24)

# Appendix H12: RESRAD-Offsite 3.1 Output for Area 3.1 Am-241

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 Title : RESRAD-OFFSITE Default Parameters  
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## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	RESRAD computed	Parameter Name
SEXT	Fractions of annular areas within AREA:				
SEXT	Ring 13	0.000E+00	0.000E+00	---	FRACA(13)
SEXT	Ring 14	0.000E+00	0.000E+00	---	FRACA(14)
SEXT	Ring 15	0.000E+00	0.000E+00	---	FRACA(15)
SEXT	Ring 16	0.000E+00	2.400E-02	---	FRACA(16)
SEXT	Ring 17	0.000E+00	1.900E-01	---	FRACA(17)
SEXT	Ring 18	0.000E+00	2.400E-01	---	FRACA(18)
SEXT	Ring 19	4.900E-02	2.000E-01	---	FRACA(19)
SEXT	Ring 20	9.700E-02	1.700E-01	---	FRACA(20)
SEXT	Ring 21	9.700E-02	1.500E-01	---	FRACA(21)
SEXT	Ring 22	8.600E-02	1.300E-01	---	FRACA(22)
SEXT	Ring 23	7.700E-02	1.200E-01	---	FRACA(23)
SEXT	Ring 24	2.400E-02	5.200E-02	---	FRACA(24)
SEXT	Shape factor array from offsite area 1:				
SEXT	Radii of shape factor array (used if non-circular):				
SEXT	Outer annular radius (m), ring 25:	1.000E+01	1.000E+01	---	RAD_SHAPE(25)
SEXT	Outer annular radius (m), ring 26:	1.000E+01	1.000E+01	---	RAD_SHAPE(26)
SEXT	Outer annular radius (m), ring 27:	1.000E+01	1.000E+01	---	RAD_SHAPE(27)
SEXT	Outer annular radius (m), ring 28:	1.000E+01	1.000E+01	---	RAD_SHAPE(28)
SEXT	Outer annular radius (m), ring 29:	1.000E+01	1.000E+01	---	RAD_SHAPE(29)
SEXT	Outer annular radius (m), ring 30:	1.000E+01	1.000E+01	---	RAD_SHAPE(30)
SEXT	Outer annular radius (m), ring 31:	1.000E+01	1.000E+01	---	RAD_SHAPE(31)
SEXT	Outer annular radius (m), ring 32:	1.000E+01	1.000E+01	---	RAD_SHAPE(32)
SEXT	Outer annular radius (m), ring 33:	1.000E+01	1.000E+01	---	RAD_SHAPE(33)
SEXT	Outer annular radius (m), ring 34:	1.000E+01	1.000E+01	---	RAD_SHAPE(34)
SEXT	Outer annular radius (m), ring 35:	1.000E+01	1.000E+01	---	RAD_SHAPE(35)
SEXT	Outer annular radius (m), ring 36:	1.000E+01	1.000E+01	---	RAD_SHAPE(36)
SEXT	Fractions of annular areas within AREA:				
SEXT	Ring 25	0.000E+00	0.000E+00	---	FRACA(25)
SEXT	Ring 26	0.000E+00	0.000E+00	---	FRACA(26)
SEXT	Ring 27	0.000E+00	0.000E+00	---	FRACA(27)
SEXT	Ring 28	0.000E+00	0.000E+00	---	FRACA(28)
SEXT	Ring 29	0.000E+00	0.000E+00	---	FRACA(29)
SEXT	Ring 30	0.000E+00	0.000E+00	---	FRACA(30)
SEXT	Ring 31	0.000E+00	0.000E+00	---	FRACA(31)
SEXT	Ring 32	0.000E+00	0.000E+00	---	FRACA(32)
SEXT	Ring 33	0.000E+00	0.000E+00	---	FRACA(33)
SEXT	Ring 34	0.000E+00	0.000E+00	---	FRACA(34)
SEXT	Ring 35	0.000E+00	0.000E+00	---	FRACA(35)
SEXT	Ring 36	0.000E+00	0.000E+00	---	FRACA(36)

# Appendix H12: RESRAD-Offsite 3.1 Output for Area 3.1 Am-241

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 Title : RESRAD-OFFSITE Default Parameters  
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## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	RESRAD computed	Parameter Name
SEXT	Shape factor array from offsite area 2:				
SEXT	Radii of shape factor array (used if non-circular):				
SEXT	Outer annular radius (m), ring 37:	1.000E+01	1.000E+01	---	RAD_SHAPE(37)
SEXT	Outer annular radius (m), ring 38:	1.000E+01	1.000E+01	---	RAD_SHAPE(38)
SEXT	Outer annular radius (m), ring 39:	1.000E+01	1.000E+01	---	RAD_SHAPE(39)
SEXT	Outer annular radius (m), ring 40:	1.000E+01	1.000E+01	---	RAD_SHAPE(40)
SEXT	Outer annular radius (m), ring 41:	1.000E+01	1.000E+01	---	RAD_SHAPE(41)
SEXT	Outer annular radius (m), ring 42:	1.000E+01	1.000E+01	---	RAD_SHAPE(42)
SEXT	Outer annular radius (m), ring 43:	1.000E+01	1.000E+01	---	RAD_SHAPE(43)
SEXT	Outer annular radius (m), ring 44:	1.000E+01	1.000E+01	---	RAD_SHAPE(44)
SEXT	Outer annular radius (m), ring 45:	1.000E+01	1.000E+01	---	RAD_SHAPE(45)
SEXT	Outer annular radius (m), ring 46:	1.000E+01	1.000E+01	---	RAD_SHAPE(46)
SEXT	Outer annular radius (m), ring 47:	1.000E+01	1.000E+01	---	RAD_SHAPE(47)
SEXT	Outer annular radius (m), ring 48:	1.000E+01	1.000E+01	---	RAD_SHAPE(48)
SEXT	Fractions of annular areas within AREA:				
SEXT	Ring 37	0.000E+00	0.000E+00	---	FRACA(37)
SEXT	Ring 38	0.000E+00	0.000E+00	---	FRACA(38)
SEXT	Ring 39	0.000E+00	0.000E+00	---	FRACA(39)
SEXT	Ring 40	0.000E+00	0.000E+00	---	FRACA(40)
SEXT	Ring 41	0.000E+00	0.000E+00	---	FRACA(41)
SEXT	Ring 42	0.000E+00	0.000E+00	---	FRACA(42)
SEXT	Ring 43	0.000E+00	0.000E+00	---	FRACA(43)
SEXT	Ring 44	0.000E+00	0.000E+00	---	FRACA(44)
SEXT	Ring 45	0.000E+00	0.000E+00	---	FRACA(45)
SEXT	Ring 46	0.000E+00	0.000E+00	---	FRACA(46)
SEXT	Ring 47	0.000E+00	0.000E+00	---	FRACA(47)
SEXT	Ring 48	0.000E+00	0.000E+00	---	FRACA(48)
SEXT	Shape factor array from offsite area 3:				
SEXT	Radii of shape factor array (used if non-circular):				
SEXT	Outer annular radius (m), ring 49:	2.875E+02	2.875E+02	---	RAD_SHAPE(49)
SEXT	Outer annular radius (m), ring 50:	3.096E+02	3.096E+02	---	RAD_SHAPE(50)
SEXT	Outer annular radius (m), ring 51:	3.193E+02	3.193E+02	---	RAD_SHAPE(51)
SEXT	Outer annular radius (m), ring 52:	3.511E+02	3.511E+02	---	RAD_SHAPE(52)
SEXT	Outer annular radius (m), ring 53:	3.828E+02	3.828E+02	---	RAD_SHAPE(53)
SEXT	Outer annular radius (m), ring 54:	4.146E+02	4.146E+02	---	RAD_SHAPE(54)
SEXT	Outer annular radius (m), ring 55:	4.463E+02	4.463E+02	---	RAD_SHAPE(55)
SEXT	Outer annular radius (m), ring 56:	4.780E+02	4.780E+02	---	RAD_SHAPE(56)
SEXT	Outer annular radius (m), ring 57:	5.098E+02	5.098E+02	---	RAD_SHAPE(57)
SEXT	Outer annular radius (m), ring 58:	5.415E+02	5.415E+02	---	RAD_SHAPE(58)
SEXT	Outer annular radius (m), ring 59:	5.536E+02	5.536E+02	---	RAD_SHAPE(59)
SEXT	Outer annular radius (m), ring 60:	5.591E+02	5.591E+02	---	RAD_SHAPE(60)

# Appendix H12: RESRAD-Offsite 3.1 Output for Area 3.1 Am-241

RESRAD-OFFSITE, Version 3.1      T½ Limit = 30 days      05/04/2016 13:17 Page 33  
 Parent Dose Report  
 Title : RESRAD-OFFSITE Default Parameters  
 File : AREA 3.1 FARMER AM.ROF

## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	RESRAD computed	Parameter Name
SEXT	Fractions of annular areas within AREA:				
SEXT	Ring 49	0.000E+00	0.000E+00	---	FRACA(49)
SEXT	Ring 50	6.281E-02	6.281E-02	---	FRACA(50)
SEXT	Ring 51	1.259E-01	1.258E-01	---	FRACA(51)
SEXT	Ring 52	1.238E-01	1.238E-01	---	FRACA(52)
SEXT	Ring 53	1.126E-01	1.126E-01	---	FRACA(53)
SEXT	Ring 54	1.033E-01	1.033E-01	---	FRACA(54)
SEXT	Ring 55	9.539E-02	9.539E-02	---	FRACA(55)
SEXT	Ring 56	8.865E-02	8.865E-02	---	FRACA(56)
SEXT	Ring 57	8.281E-02	8.281E-02	---	FRACA(57)
SEXT	Ring 58	7.770E-02	7.770E-02	---	FRACA(58)
SEXT	Ring 59	4.086E-02	4.086E-02	---	FRACA(59)
SEXT	Ring 60	3.527E-03	3.527E-03	---	FRACA(60)
SEXT	Shape factor array from offsite area 4:				
SEXT	Radii of shape factor array (used if non-circular):				
SEXT	Outer annular radius (m), ring 61:	1.497E+01	1.497E+01	---	RAD_SHAPE(61)
SEXT	Outer annular radius (m), ring 62:	3.364E+01	3.364E+01	---	RAD_SHAPE(62)
SEXT	Outer annular radius (m), ring 63:	5.231E+01	5.231E+01	---	RAD_SHAPE(63)
SEXT	Outer annular radius (m), ring 64:	7.098E+01	7.098E+01	---	RAD_SHAPE(64)
SEXT	Outer annular radius (m), ring 65:	8.966E+01	8.966E+01	---	RAD_SHAPE(65)
SEXT	Outer annular radius (m), ring 66:	1.083E+02	1.083E+02	---	RAD_SHAPE(66)
SEXT	Outer annular radius (m), ring 67:	1.270E+02	1.270E+02	---	RAD_SHAPE(67)
SEXT	Outer annular radius (m), ring 68:	1.270E+02	1.270E+02	---	RAD_SHAPE(68)
SEXT	Outer annular radius (m), ring 69:	1.445E+02	1.445E+02	---	RAD_SHAPE(69)
SEXT	Outer annular radius (m), ring 70:	1.621E+02	1.621E+02	---	RAD_SHAPE(70)
SEXT	Outer annular radius (m), ring 71:	1.796E+02	1.796E+02	---	RAD_SHAPE(71)
SEXT	Outer annular radius (m), ring 72:	1.796E+02	1.796E+02	---	RAD_SHAPE(72)
SEXT	Fractions of annular areas within AREA:				
SEXT	Ring 61	1.000E+00	1.000E+00	---	FRACA(61)
SEXT	Ring 62	1.000E+00	1.000E+00	---	FRACA(62)
SEXT	Ring 63	1.000E+00	1.000E+00	---	FRACA(63)
SEXT	Ring 64	1.000E+00	1.000E+00	---	FRACA(64)
SEXT	Ring 65	1.000E+00	1.000E+00	---	FRACA(65)
SEXT	Ring 66	1.000E+00	1.000E+00	---	FRACA(66)
SEXT	Ring 67	1.000E+00	1.000E+00	---	FRACA(67)
SEXT	Ring 68	1.000E+00	1.000E+00	---	FRACA(68)
SEXT	Ring 69	6.627E-01	6.627E-01	---	FRACA(69)
SEXT	Ring 70	2.501E-01	2.501E-01	---	FRACA(70)
SEXT	Ring 71	6.949E-02	6.949E-02	---	FRACA(71)
SEXT	Ring 72	9.076E-08	9.076E-08	---	FRACA(72)
OCCU	Fraction of time spent indoors on contaminated site	0.000E+00	0.000E+00	---	FIND
OCCU	Fraction of time spent outdoors on contaminated site	0.000E+00	0.000E+00	---	FOTD
OCCU	Fraction of time spent indoors in Offsite Dwelling	6.600E-01	5.000E-01	---	FINDDWELL
OCCU	Fraction of time spent outdoors in Offsite Dwelling	1.116E-01	1.000E-01	---	FOTDDWELL
OCCU	Fraction of time spent outdoors in agri. area 1	0.000E+00	1.000E-01	---	OCCUPANCY(1)
OCCU	Fraction of time spent outdoors in agri. area 2	0.000E+00	1.000E-01	---	OCCUPANCY(2)

# Appendix H12: RESRAD-Offsite 3.1 Output for Area 3.1 Am-241

RESRAD-OFFSITE, Version 3.1      T<sub>1/2</sub> Limit = 30 days      05/04/2016 13:17 Page 34  
 Parent Dose Report  
 Title : RESRAD-OFFSITE Default Parameters  
 File : AREA 3.1 FARMER AM.ROF

## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	RESRAD computed	Parameter Name
OCCU	Fraction of time spent outdoors in agri. area 3	1.142E-01	1.000E-01	---	OCCUPANCY(3)
OCCU	Fraction of time spent outdoors in agri. area 4	1.142E-01	1.000E-01	---	OCCUPANCY(4)
RADN	Diffusion coefficient for radon gas (m/sec):				
RADN	in cover material	not used	2.000E-06	---	DIFCV
RADN	in contaminated cone soil	not used	2.000E-06	---	DIFCZ
RADN	in fruit, grain and non-leafy vegetable field	not used	2.000E-06	---	DIFOS(1)
RADN	in leafy vegetable field	not used	2.000E-06	---	DIFOS(2)
RADN	in pasture	not used	2.000E-06	---	DIFOS(3)
RADN	in livestock grain field	not used	2.000E-06	---	DIFOS(4)
RADN	in offsite dwelling site	not used	2.000E-06	---	DIFOS(5)
RADN	in foundation material	not used	3.000E-07	---	DIFFL
RADN	Thickness of building foundation (m)	not used	1.500E-01	---	FLOOR1
RADN	Bulk density of building foundation (g/cm**3)	not used	2.400E+00	---	DENSFL
RADN	Total porosity of the building foundation	not used	1.000E-01	---	TPFL
RADN	Volumetric water content of the foundation	not used	3.000E-02	---	PH2OFL
RADN	Building depth below ground surface (m)	not used	-1.000E+00	---	DMFL
RADN	Radon vertical dimension of mixing (m)	not used	2.000E+00	---	HMIX
RADN	Height of the building (room) (m)	not used	2.500E+00	---	HRM
RADN	Average building air exchange rate (1/hr)	not used	5.000E-01	---	REXG
RADN	Building interior area factor	not used	0.000E+00	---	FAI
RADN	Emanating power of Rn-222 gas	not used	2.500E-01	---	EMANA(1)
RADN	Emanating power of Rn-220 gas	not used	1.500E-01	---	EMANA(2)
C14	C-14 evasion layer thickness in soil (m)	not used	3.000E-01	---	DMC
C14	Vertical dimension of mixing for vegetation (m)	not used	1.000E+00	---	HMIXV
C14	C-14 evasion flux rate from soil (1/sec)	not used	7.000E-07	---	C14EVSN
C14	C-12 evasion flux rate from soil (1/sec)	not used	1.000E-10	---	C12EVSN
C14	Fraction of vegetation carbon from air	not used	9.800E-01	---	CAIR
C14	Fraction of vegetation carbon from soil	not used	2.000E-02	---	CSOIL
C12	C-12 concentration in the atmosphere (g/m**3)	not used	1.800E-01	---	C12AIR
C12	C-12 concentration in contaminated soil (g/g)	not used	3.000E-02	---	C12CZ
C12	C-12 concentration in water (g/cm**3)	not used	2.000E-05	---	C12WTR
C12	C-12 concentration in meat 1 (g/g)	not used	2.400E-01	---	C12MEAT_MILK(1)
C12	C-12 concentration in milk (g/g)	not used	7.000E-02	---	C12MEAT_MILK(2)
C12	C-12 concentration in vegetable 1 (g/g)	not used	4.000E-01	---	C12PLANT(1)
C12	C-12 concentration in vegetable 2 (g/g)	not used	9.000E-02	---	C12PLANT(2)
C12	C-12 concentration in livestock feed 1 (g/g)	not used	9.000E-02	---	C12PLANT(3)
C12	C-12 concentration in livestock feed 2 (g/g)	not used	4.000E-01	---	C12PLANT(4)
H3	Humidity in air (g/cm**3)	not used	8.000E+00	---	HUMID
H3	Mass fraction of water in meat 1 (g/g)	not used	6.000E-01	---	H2OMEAT_MILK(1)
H3	Mass fraction of water in milk (g/g)	not used	8.800E-01	---	H2OMEAT_MILK(2)
H3	Mass fraction of water in vegetable 1 (g/g)	not used	8.000E-01	---	H2OPLANT(1)
H3	Mass fraction of water in vegetable 2 (g/g)	not used	8.000E-01	---	H2OPLANT(2)
H3	Mass fraction of water in livestock feed 1 (g/g)	not used	8.000E-01	---	H2OPLANT(3)

# Appendix H12: RESRAD-Offsite 3.1 Output for Area 3.1 Am-241

RESRAD-OFFSITE, Version 3.1      TH Limit = 30 days      05/04/2016 13:17 Page 35  
 Parent Dose Report  
 Title : RESRAD-OFFSITE Default Parameters  
 File : AREA 3.1 FARMER AM.ROF

## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	RESRAD computed	Parameter Name
H3	Mass fraction of water in livestock feed 2 (g/g)	not used	8.000E-01	---	H2OPLANT (4)

## Summary of Pathway Selections

Pathway	User Selection
1 -- external gamma	active
2 -- inhalation (w/o radon)	active
3 -- plant ingestion	suppressed
4 -- meat ingestion	active
5 -- milk ingestion	suppressed
6 -- aquatic foods	suppressed
7 -- drinking water	active
8 -- soil ingestion	active
9 -- radon	suppressed

## Appendix H12: RESRAD-Offsite 3.1 Output for Area 3.1 Am-241

RESRAD-OFFSITE, Version 3.1      T½ Limit = 30 days      05/04/2016 13:17 Page 36  
 Parent Dose Report  
 Title : RESRAD-OFFSITE Default Parameters  
 File : AREA 3.1 FARMER AM.ROF

Contaminated Zone Dimensions	Initial Soil Concentrations, pCi/g	
Area: 64516.00 square meters	Am-241	1.091E+00
Thickness: 1.00 meters	Cs-137	1.016E+00
Cover Depth: 0.00 meters	Sr-90	5.620E-01

Total Dose TDOSE(t), mrem/yr  
 Basic Radiation Dose Limit = 2.500E+01 mrem/yr  
 Total Mixture Sum M(t) = Fraction of Basic Dose Limit Received at Time (t)

t (years):	0.000E+00	1.000E+00	3.000E+00	6.000E+00	1.200E+01	3.000E+01	7.500E+01	1.750E+02	4.200E+02	9.700E+02
TDOSE(t):	8.182E-01	7.911E-01	7.394E-01	6.691E-01	5.510E-01	3.764E-01	3.176E-01	1.860E-02	6.228E-03	2.473E-03
M(t):	3.273E-02	3.165E-02	2.958E-02	2.677E-02	2.204E-02	1.506E-02	1.271E-02	7.440E-04	2.491E-04	9.894E-05

Maximum TDOSE(t): 8.182E-01 mrem/yr at t = 0 years

# Appendix H12: RESRAD-Offsite 3.1 Output for Area 3.1 Am-241

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 05/04/2016 13:17 Page 37  
 Parent Dose Report  
 Title : RESRAD-OFFSITE Default Parameters  
 File : AREA 3.1 FARMER AM.ROF

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)  
 in mrem/yr and as a Percentage of Total Dose at t = 0 years

From releases to ground water and to surface water

Radio- Nuclide	Ground		Fish		Radon		Plant		Meat		Milk		Soil		Water	
	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%
Am-241	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0
Cs-137	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0
Sr-90	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0
Total	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)  
 in mrem/yr and as a Percentage of Total Dose at t = 0 years

Directly from primary contamination and from release to atmosphere (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil		All Pathways*	
	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%
Am-241	5.39E-03	1	4.23E-05	0	0.00E+00	0	0.00E+00	0	5.44E-03	1	0.00E+00	0	4.66E-11	0	1.09E-02	1
Cs-137	3.80E-01	46	2.80E-09	0	0.00E+00	0	0.00E+00	0	1.24E-01	15	0.00E+00	0	5.86E-13	0	5.04E-01	62
Sr-90	1.50E-03	0	6.25E-08	0	0.00E+00	0	0.00E+00	0	3.02E-01	37	0.00E+00	0	9.13E-13	0	3.03E-01	37
Total	3.87E-01	47	4.23E-05	0	0.00E+00	0	0.00E+00	0	4.31E-01	53	0.00E+00	0	4.81E-11	0	8.18E-01	100

\*Sum of dose from all releases and from primary contamination.

# Appendix H12: RESRAD-Offsite 3.1 Output for Area 3.1 Am-241

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 05/04/2016 13:17 Page 38  
 Parent Dose Report  
 Title : RESRAD-OFFSITE Default Parameters  
 File : AREA 3.1 FARMER AM.ROF

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)  
 in mrem/yr and as a Percentage of Total Dose at t = 1 years

From releases to ground water and to surface water

Radio- Nuclide	Ground		Fish		Radon		Plant		Meat		Milk		Soil		Water	
	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%
Am-241	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0
Cs-137	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0
Sr-90	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0
Total	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)  
 in mrem/yr and as a Percentage of Total Dose at t = 1 years

Directly from primary contamination and from release to atmosphere (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil		All Pathways*	
	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%
Am-241	5.39E-03	1	4.22E-05	0	0.00E+00	0	0.00E+00	0	5.43E-03	1	0.00E+00	0	1.40E-10	0	1.09E-02	1
Cs-137	3.71E-01	47	2.73E-09	0	0.00E+00	0	0.00E+00	0	1.21E-01	15	0.00E+00	0	1.72E-12	0	4.92E-01	62
Sr-90	1.42E-03	0	5.93E-08	0	0.00E+00	0	0.00E+00	0	2.87E-01	36	0.00E+00	0	2.44E-12	0	2.88E-01	36
Total	3.78E-01	48	4.22E-05	0	0.00E+00	0	0.00E+00	0	4.13E-01	52	0.00E+00	0	1.44E-10	0	7.91E-01	100

\*Sum of dose from all releases and from primary contamination.

# Appendix H12: RESRAD-Offsite 3.1 Output for Area 3.1 Am-241

RESRAD-OFFSITE, Version 3.1      TW Limit = 30 days      05/04/2016 13:17 Page 39  
 Parent Dose Report  
 Title : RESRAD-OFFSITE Default Parameters  
 File : AREA 3.1 FARMER AM.ROF

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)  
 in mrem/yr and as a Percentage of Total Dose at t = 3 years

From releases to ground water and to surface water

Radio- Nuclide	Ground		Fish		Radon		Plant		Meat		Milk		Soil		Water	
	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%
Am-241	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0
Cs-137	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0
Sr-90	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0
Total	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)  
 in mrem/yr and as a Percentage of Total Dose at t = 3 years

Directly from primary contamination and from release to atmosphere (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil		All Pathways*	
	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%
Am-241	5.37E-03	1	4.20E-05	0	0.00E+00	0	0.00E+00	0	5.41E-03	1	0.00E+00	0	3.24E-10	0	1.08E-02	1
Cs-137	3.54E-01	48	2.61E-09	0	0.00E+00	0	0.00E+00	0	1.16E-01	16	0.00E+00	0	3.82E-12	0	4.70E-01	64
Sr-90	1.28E-03	0	5.33E-08	0	0.00E+00	0	0.00E+00	0	2.58E-01	35	0.00E+00	0	4.42E-12	0	2.59E-01	35
Total	3.61E-01	49	4.21E-05	0	0.00E+00	0	0.00E+00	0	3.79E-01	51	0.00E+00	0	3.33E-10	0	7.39E-01	100

\*Sum of dose from all releases and from primary contamination.

# Appendix H12: RESRAD-Offsite 3.1 Output for Area 3.1 Am-241

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 05/04/2016 13:17 Page 40

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 3.1 FARMER AM.ROF

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)  
in mrem/yr and as a Percentage of Total Dose at t = 6 years

From releases to ground water and to surface water

Radio- Nuclide	Ground		Fish		Radon		Plant		Meat		Milk		Soil		Water	
	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%
Am-241	1.01E-15	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	4.05E-13	0	0.00E+00	0	7.88E-17	0	5.49E-11	0
Cs-137	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0
Sr-90	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0
Total	1.01E-15	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	4.05E-13	0	0.00E+00	0	7.88E-17	0	5.49E-11	0

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)  
in mrem/yr and as a Percentage of Total Dose at t = 6 years

Directly from primary contamination and from release to atmosphere (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil		All Pathways*	
	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%
Am-241	5.34E-03	1	4.18E-05	0	0.00E+00	0	0.00E+00	0	5.38E-03	1	0.00E+00	0	5.99E-10	0	1.08E-02	2
Cs-137	3.30E-01	49	2.43E-09	0	0.00E+00	0	0.00E+00	0	1.08E-01	16	0.00E+00	0	6.59E-12	0	4.37E-01	65
Sr-90	1.09E-03	0	4.55E-09	0	0.00E+00	0	0.00E+00	0	2.20E-01	33	0.00E+00	0	5.65E-12	0	2.21E-01	33
Total	3.36E-01	50	4.19E-05	0	0.00E+00	0	0.00E+00	0	3.33E-01	50	0.00E+00	0	6.11E-10	0	6.69E-01	100

\*Sum of dose from all releases and from primary contamination.

# Appendix H12: RESRAD-Offsite 3.1 Output for Area 3.1 Am-241

RESRAD-OFFSITE, Version 3.1 T4 Limit = 30 days 05/04/2016 13:17 Page 41  
 Parent Dose Report  
 Title : RESRAD-OFFSITE Default Parameters  
 File : AREA 3.1 FARMER AM.ROF

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)  
 in mrem/yr and as a Percentage of Total Dose at t = 12 years

From releases to ground water and to surface water

Radio- Nuclide	Ground		Fish		Radon		Plant		Meat		Milk		Soil		Water	
	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%
Am-241	6.69E-11	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	1.89E-08	0	0.00E+00	0	5.24E-12	0	1.46E-06	0
Cs-137	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0
Sr-90	2.47E-12	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	1.28E-08	0	0.00E+00	0	2.96E-13	0	1.59E-07	0
Total	6.94E-11	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	3.17E-08	0	0.00E+00	0	5.53E-12	0	1.62E-06	0

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)  
 in mrem/yr and as a Percentage of Total Dose at t = 12 years

Directly from primary contamination and from release to atmosphere (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil		All Pathways*	
	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%
Am-241	5.29E-03	1	4.14E-05	0	0.00E+00	0	0.00E+00	0	5.33E-03	1	0.00E+00	0	1.14E-09	0	1.07E-02	2
Cs-137	2.86E-01	52	2.11E-09	0	0.00E+00	0	0.00E+00	0	9.35E-02	17	0.00E+00	0	1.09E-11	0	3.80E-01	69
Sr-90	7.93E-04	0	3.31E-08	0	0.00E+00	0	0.00E+00	0	1.60E-01	29	0.00E+00	0	5.44E-12	0	1.61E-01	29
Total	2.92E-01	53	4.14E-05	0	0.00E+00	0	0.00E+00	0	2.59E-01	47	0.00E+00	0	1.16E-09	0	5.51E-01	100

\*Sum of dose from all releases and from primary contamination.

# Appendix H12: RESRAD-Offsite 3.1 Output for Area 3.1 Am-241

RESRAD-OFFSITE, Version 3.1 T4 Limit = 30 days 05/04/2016 13:17 Page 42  
 Parent Dose Report  
 Title : RESRAD-OFFSITE Default Parameters  
 File : AREA 3.1 FARMER AM.ROF

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)  
 in mrem/yr and as a Percentage of Total Dose at t = 30 years

From releases to ground water and to surface water

Radio- Nuclide	Ground		Fish		Radon		Plant		Meat		Milk		Soil		Water	
	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%
Am-241	5.91E-06	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	7.27E-06	0	0.00E+00	0	4.62E-09	0	4.99E-04	0
Cs-137	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0
Sr-90	4.23E-06	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	6.38E-03	2	0.00E+00	0	5.09E-07	0	4.92E-02	13
Total	4.29E-06	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	6.39E-03	2	0.00E+00	0	5.14E-07	0	4.97E-02	13

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)  
 in mrem/yr and as a Percentage of Total Dose at t = 30 years

Directly from primary contamination and from release to atmosphere (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil		All Pathways*	
	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%
Am-241	5.13E-03	1	4.02E-05	0	0.00E+00	0	0.00E+00	0	5.17E-03	1	0.00E+00	0	2.69E-09	0	1.08E-02	3
Cs-137	1.87E-01	50	1.38E-09	0	0.00E+00	0	0.00E+00	0	6.11E-02	16	0.00E+00	0	1.69E-11	0	2.48E-01	66
Sr-90	3.05E-04	0	1.28E-08	0	0.00E+00	0	0.00E+00	0	6.16E-02	16	0.00E+00	0	2.38E-12	0	1.18E-01	31
Total	1.92E-01	51	4.02E-05	0	0.00E+00	0	0.00E+00	0	1.28E-01	34	0.00E+00	0	2.71E-09	0	3.76E-01	100

\*Sum of dose from all releases and from primary contamination.

# Appendix H12: RESRAD-Offsite 3.1 Output for Area 3.1 Am-241

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 05/04/2016 13:17 Page 43  
 Parent Dose Report  
 Title : RESRAD-OFFSITE Default Parameters  
 File : AREA 3.1 FARMER AM.ROF

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)  
 in mrem/yr and as a Percentage of Total Dose at t = 75 years

From releases to ground water and to surface water

Radio- Nuclide	Ground		Fish		Radon		Plant		Meat		Milk		Soil		Water	
	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%
Am-241	2.10E-07	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	2.03E-05	0	0.00E+00	0	1.65E-08	0	1.37E-03	0
Cs-137	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0
Sr-90	4.16E-05	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	3.02E-02	10	0.00E+00	0	5.00E-06	0	1.85E-01	58
Total	4.18E-05	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	3.02E-02	10	0.00E+00	0	5.01E-06	0	1.86E-01	59

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)  
 in mrem/yr and as a Percentage of Total Dose at t = 75 years

Directly from primary contamination and from release to atmosphere (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil		All Pathways*	
	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%
Am-241	4.76E-03	1	3.72E-05	0	0.00E+00	0	0.00E+00	0	4.79E-03	2	0.00E+00	0	6.10E-09	0	1.10E-02	3
Cs-137	6.45E-02	20	4.75E-10	0	0.00E+00	0	0.00E+00	0	2.11E-02	7	0.00E+00	0	1.35E-11	0	8.56E-02	27
Sr-90	2.81E-05	0	1.17E-09	0	0.00E+00	0	0.00E+00	0	5.68E-03	2	0.00E+00	0	2.20E-13	0	2.21E-01	70
Total	6.93E-02	22	3.73E-05	0	0.00E+00	0	0.00E+00	0	3.16E-02	10	0.00E+00	0	6.11E-09	0	3.18E-01	100

\*Sum of dose from all releases and from primary contamination.

# Appendix H12: RESRAD-Offsite 3.1 Output for Area 3.1 Am-241

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 05/04/2016 13:17 Page 44  
 Parent Dose Report  
 Title : RESRAD-OFFSITE Default Parameters  
 File : AREA 3.1 FARMER AM.ROF

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)  
 in mrem/yr and as a Percentage of Total Dose at t = 175 years

From releases to ground water and to surface water

Radio- Nuclide	Ground		Fish		Radon		Plant		Meat		Milk		Soil		Water	
	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%
Am-241	1.90E-07	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	1.82E-05	0	0.00E+00	0	1.49E-08	0	1.22E-03	7
Cs-137	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0
Sr-90	2.49E-07	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	1.69E-04	1	0.00E+00	0	3.00E-08	0	1.01E-03	5
Total	4.39E-07	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	1.88E-04	1	0.00E+00	0	4.48E-08	0	2.23E-03	12

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)  
 in mrem/yr and as a Percentage of Total Dose at t = 175 years

Directly from primary contamination and from release to atmosphere (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil		All Pathways*	
	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%
Am-241	4.02E-03	22	3.15E-05	0	0.00E+00	0	0.00E+00	0	4.05E-03	22	0.00E+00	0	1.17E-08	0	9.34E-03	50
Cs-137	6.07E-03	33	4.47E-11	0	0.00E+00	0	0.00E+00	0	1.98E-03	11	0.00E+00	0	2.55E-12	0	8.05E-03	43
Sr-90	1.40E-07	0	5.87E-12	0	0.00E+00	0	0.00E+00	0	2.83E-05	0	0.00E+00	0	1.10E-15	0	1.20E-03	6
Total	1.01E-02	54	3.15E-05	0	0.00E+00	0	0.00E+00	0	6.06E-03	33	0.00E+00	0	1.17E-08	0	1.85E-02	100

\*Sum of dose from all releases and from primary contamination.

# Appendix H12: RESRAD-Offsite 3.1 Output for Area 3.1 Am-241

RESRAD-OFFSITE, Version 3.1      T½ Limit = 30 days      05/04/2016 13:17 Page 45  
 Parent Dose Report  
 Title : RESRAD-OFFSITE Default Parameters  
 File : AREA 3.1 FARMER AM.ROF

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)  
 in mrem/yr and as a Percentage of Total Dose at t = 420 years

From releases to ground water and to surface water

Radio- Nuclide	Ground		Fish		Radon		Plant		Meat		Milk		Soil		Water	
	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%
Am-241	1.28E-07	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	1.23E-05	0	0.00E+00	0	1.00E-08	0	8.25E-04	13
Cs-137	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0
Sr-90	5.73E-13	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	3.89E-10	0	0.00E+00	0	6.89E-14	0	2.31E-09	0
Total	1.28E-07	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	1.23E-05	0	0.00E+00	0	1.00E-08	0	8.25E-04	13

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)  
 in mrem/yr and as a Percentage of Total Dose at t = 420 years

Directly from primary contamination and from release to atmosphere (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil		All Pathways*	
	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%
Am-241	2.66E-03	43	2.08E-05	0	0.00E+00	0	0.00E+00	0	2.68E-03	43	0.00E+00	0	1.76E-08	0	6.20E-03	100
Cs-137	1.85E-05	0	1.36E-13	0	0.00E+00	0	0.00E+00	0	6.06E-06	0	0.00E+00	0	1.35E-14	0	2.46E-05	0
Sr-90	3.23E-13	0	1.35E-17	0	0.00E+00	0	0.00E+00	0	6.51E-11	0	0.00E+00	0	2.53E-21	0	2.76E-09	0
Total	2.68E-03	43	2.08E-05	0	0.00E+00	0	0.00E+00	0	2.69E-03	43	0.00E+00	0	1.76E-08	0	6.23E-03	100

\*Sum of dose from all releases and from primary contamination.

# Appendix H12: RESRAD-Offsite 3.1 Output for Area 3.1 Am-241

RESRAD-OFFSITE, Version 3.1 T<sub>1/2</sub> Limit = 30 days 05/04/2016 13:17 Page 46  
 Parent Dose Report  
 Title : RESRAD-OFFSITE Default Parameters  
 File : AREA 3.1 FARMER AM.ROF

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)  
 in mrem/yr and as a Percentage of Total Dose at t = 970 years

From releases to ground water and to surface water

Radio- Nuclide	Ground		Fish		Radon		Plant		Meat		Milk		Soil		Water	
	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%
Am-241	5.30E-08	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	5.07E-06	0	0.00E+00	0	4.15E-09	0	3.41E-04	14
Cs-137	4.58E-16	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	4.24E-16	0	0.00E+00	0	1.36E-19	0	6.06E-16	0
Sr-90	1.26E-25	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	8.54E-23	0	0.00E+00	0	1.51E-26	0	5.07E-22	0
Total	5.30E-08	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	5.07E-06	0	0.00E+00	0	4.15E-09	0	3.41E-04	14

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)  
 in mrem/yr and as a Percentage of Total Dose at t = 970 years

Directly from primary contamination and from release to atmosphere (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil		All Pathways*	
	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%
Am-241	1.06E-03	43	8.26E-06	0	0.00E+00	0	0.00E+00	0	1.06E-03	43	0.00E+00	0	1.43E-08	0	2.47E-03	100
Cs-137	4.19E-11	0	3.08E-19	0	0.00E+00	0	0.00E+00	0	1.37E-11	0	0.00E+00	0	3.98E-20	0	5.55E-11	0
Sr-90	7.08E-26	0	2.96E-30	0	0.00E+00	0	0.00E+00	0	1.43E-23	0	0.00E+00	0	5.54E-34	0	6.07E-22	0
Total	1.06E-03	43	8.26E-06	0	0.00E+00	0	0.00E+00	0	1.06E-03	43	0.00E+00	0	1.43E-08	0	2.47E-03	100

\*Sum of dose from all releases and from primary contamination.

# Appendix H12: RESRAD-Offsite 3.1 Output for Area 3.1 Am-241

RESRAD-OFFSITE, Version 3.1      T½ Limit = 30 days      05/04/2016 13:17 Page 47  
 Parent Dose Report  
 Title : RESRAD-OFFSITE Default Parameters  
 File : AREA 3.1 FARMER AM.ROF

Dose/Source Ratios Summed Over All Pathways  
 Parent and Progeny Principal Radionuclide Contributions Indicated

Parent (i)	Product (j)	Thread Fraction	DSR(j,t) (mrem/yr)/(pCi/g)									
			0.000E+00	1.000E+00	3.000E+00	6.000E+00	1.200E+01	3.000E+01	7.500E+01	1.750E+02	4.200E+02	9.700E+02
Am-241	Am-241	1.000E+00	9.968E-03	9.951E-03	9.918E-03	9.868E-03	9.769E-03	9.477E-03	8.786E-03	7.426E-03	4.917E-03	1.949E-03
Am-241	Np-237+D	1.000E+00	5.125E-08	1.603E-07	3.629E-07	6.222E-07	2.371E-06	4.654E-04	1.274E-03	1.139E-03	7.687E-04	3.178E-04
Am-241	U-233	1.000E+00	1.332E-15	6.844E-15	2.922E-14	8.734E-14	2.952E-13	6.263E-11	1.097E-09	3.677E-09	7.937E-09	5.718E-09
Am-241	Th-229+D	1.000E+00	1.319E-18	1.682E-17	1.790E-16	1.058E-15	6.775E-15	7.878E-14	9.713E-13	7.199E-12	3.845E-11	1.102E-10
Am-241	ΣDSR(j)		9.968E-03	9.951E-03	9.918E-03	9.868E-03	9.771E-03	9.943E-03	1.006E-02	8.565E-03	5.686E-03	2.267E-03
Cs-137+D	Cs-137+D	1.000E+00	4.962E-01	4.846E-01	4.622E-01	4.306E-01	3.736E-01	2.441E-01	8.427E-02	7.927E-03	2.421E-05	5.466E-11
Sr-90+D	Sr-90+D	1.000E+00	5.395E-01	5.124E-01	4.608E-01	3.931E-01	2.860E-01	2.091E-01	3.933E-01	2.141E-03	4.919E-09	1.080E-21

The DSR includes contributions from associated (half-life ≤ 30 days) daughters.

Single Radionuclide Soil Guidelines G(i,t) in pCi/g  
 Basic Radiation Dose Limit = 2.500E+01 mrem/yr

Nuclide (i)	t =	0.000E+00	1.000E+00	3.000E+00	6.000E+00	1.200E+01	3.000E+01	7.500E+01	1.750E+02	4.200E+02	9.700E+02
Am-241	2.508E+03	2.512E+03	2.521E+03	2.533E+03	2.559E+03	2.514E+03	2.485E+03	2.919E+03	4.397E+03	1.103E+04	
Cs-137	5.039E+01	5.159E+01	5.409E+01	5.806E+01	6.691E+01	1.024E+02	2.967E+02	3.154E+03	1.033E+06	4.574E+11	
Sr-90	4.634E+01	4.879E+01	5.425E+01	6.360E+01	8.740E+01	1.195E+02	6.356E+01	1.168E+04	5.082E+09	*1.365E+14	

\*At specific activity limit

Summed Dose/Source Ratios DSR(i,t) in (mrem/yr)/(pCi/g)  
 and Single Radionuclide Soil Guidelines G(i,t) in pCi/g  
 at tmin = time of minimum single radionuclide soil guideline  
 and at tmax = time of maximum total dose = 0 years

Nuclide (i)	Initial (pCi/g)	tmin (years)	DSR(i,tmin)	G(i,tmin) (pCi/g)	DSR(i,tmax)	G(i,tmax) (pCi/g)
Am-241	1.091E+00	50.7	1.026E-02	2.437E+03	9.968E-03	2.508E+03
Cs-137	1.016E+00	0	4.962E-01	5.039E+01	4.962E-01	5.039E+01
Sr-90	5.620E-01	54.5	6.802E-01	3.676E+01	5.395E-01	4.634E+01

# Appendix H12: RESRAD-Offsite 3.1 Output for Area 3.1 Am-241

RESRAD-OFFSITE, Version 3.1      T<sub>1/2</sub> Limit = 30 days      05/04/2016 13:17 Page 48  
 Parent Dose Report  
 Title : RESRAD-OFFSITE Default Parameters  
 File : AREA 3.1 FARMER AM.ROF

## Individual Nuclide Dose Summed Over All Pathways Parent Nuclide and Thread Fraction Indicated

Nuclide (j)	Parent (i)	THF(i)	DOSE(j,t), mrem/yr										
			t =	0.000E+00	1.000E+00	3.000E+00	6.000E+00	1.200E+01	3.000E+01	7.500E+01	1.750E+02	4.200E+02	9.700E+02
Am-241	Am-241	1.000E+00		1.088E-02	1.086E-02	1.082E-02	1.077E-02	1.066E-02	1.034E-02	9.586E-03	8.102E-03	5.365E-03	2.127E-03
Np-237	Am-241	1.000E+00		5.591E-08	1.749E-07	3.959E-07	6.788E-07	2.587E-06	5.078E-04	1.390E-03	1.243E-03	8.386E-04	3.467E-04
U-233	Am-241	1.000E+00		1.453E-15	7.467E-15	3.188E-14	9.529E-14	3.221E-13	6.833E-11	1.197E-09	4.011E-09	8.659E-09	6.238E-09
Th-229	Am-241	1.000E+00		1.440E-18	1.835E-17	1.953E-16	1.154E-15	7.392E-15	8.594E-14	1.060E-12	7.854E-12	4.195E-11	1.202E-10
Cs-137	Cs-137	1.000E+00		5.041E-01	4.923E-01	4.696E-01	4.375E-01	3.796E-01	2.481E-01	8.562E-02	8.053E-03	2.459E-05	5.554E-11
Sr-90	Sr-90	1.000E+00		3.032E-01	2.879E-01	2.590E-01	2.209E-01	1.608E-01	1.175E-01	2.210E-01	1.203E-03	2.764E-09	6.070E-22

THF(i) is the thread fraction of the parent nuclide.

## Individual Nuclide Soil Concentration Parent Nuclide and Thread Fraction Indicated

Nuclide (j)	Parent (i)	THF(i)	S(j,t), pCi/g										
			t =	0.000E+00	1.000E+00	3.000E+00	6.000E+00	1.200E+01	3.000E+01	7.500E+01	1.750E+02	4.200E+02	9.700E+02
Am-241	Am-241	1.000E+00		1.091E+00	1.089E+00	1.086E+00	1.080E+00	1.069E+00	1.037E+00	9.617E-01	8.128E-01	5.382E-01	2.133E-01
Np-237	Am-241	1.000E+00		0.000E+00	3.422E-07	9.647E-07	1.762E-06	2.960E-06	4.668E-06	5.125E-06	4.379E-06	2.900E-06	1.150E-06
U-233	Am-241	1.000E+00		0.000E+00	7.712E-13	6.535E-12	2.440E-11	8.602E-11	3.824E-10	1.225E-09	2.486E-09	3.180E-09	1.784E-09
Th-229	Am-241	1.000E+00		0.000E+00	2.564E-17	6.345E-16	4.775E-15	3.464E-14	4.170E-13	3.855E-12	2.192E-11	9.019E-11	2.116E-10
Cs-137	Cs-137	1.000E+00		1.016E+00	9.923E-01	9.465E-01	8.817E-01	7.651E-01	4.999E-01	1.726E-01	1.623E-02	4.957E-05	1.119E-10
Sr-90	Sr-90	1.000E+00		5.620E-01	5.330E-01	4.794E-01	4.090E-01	2.976E-01	1.146E-01	1.056E-02	5.273E-05	1.211E-10	2.660E-23

THF(i) is the thread fraction of the parent nuclide.

## Appendix H12: RESRAD-Offsite 3.1 Output for Area 3.1 Am-241

RESRAD-OFFSITE, Version 3.1      T½ Limit = 30 days      05/04/2016 13:17 Page 49

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 3.1 FARMER AM.ROF

### Run Time Information

ResOCalc.EXE execution began at 13:17 on 05/04/2016

ResOCalc.EXE execution ended at 13:17 on 05/04/2016

ResOCalc.EXE execution time 3.767 seconds

1 Ground water transport numerical integrations did not converge to specified criteria.  
Check file QRFAIL.LOG for details.