

Appendix H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 1
Parent Dose Report
Title : RESRAD-OFFSITE Default Parameters
File : AREA 4.2 COLLECTOR AM.ROF

Table of Contents

Part I: Mixture Sums and Single Radionuclide Guidelines

| | |
|--|----|
| Dose Conversion Factor (and Related) Parameter Summary ... | 2 |
| Site-Specific Parameter Summary | 5 |
| Summary of Pathway Selections | 35 |
| Contaminated Zone and Total Dose Summary | 36 |
| Total Dose Components | |
| Time = 0.000E+00 | 37 |
| Time = 1.000E+00 | 38 |
| Time = 3.000E+00 | 39 |
| Time = 6.000E+00 | 40 |
| Time = 1.200E+01 | 41 |
| Time = 3.000E+01 | 42 |
| Time = 7.500E+01 | 43 |
| Time = 1.750E+02 | 44 |
| Time = 4.200E+02 | 45 |
| Time = 9.700E+02 | 46 |
| Dose/Source Ratios Summed Over All Pathways | 47 |
| Single Radionuclide Soil Guidelines | 47 |
| Dose Per Nuclide Summed Over All Pathways | 48 |
| Soil Concentration Per Nuclide | 48 |
| Run Time Information | 49 |

Appendix H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 2

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR AM.ROF

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) |

Appendix H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 3

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR 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 | | | | |

Appendix H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 4

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR 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 | 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) |

Appendix H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 5

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR AM.ROF

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 | 3.070E-01 | 0.000E+00 | --- | S1 (1) |
| CONC | Initial principal radionuclide (pCi/g): Cs-137 | 4.470E-01 | 0.000E+00 | --- | S1 (2) |
| CONC | Initial principal radionuclide (pCi/g): Sr-90 | 2.250E-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 | 8.052E-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 | 5.462E-04 | ALEACH (2) |

Appendix H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 6

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR AM.ROF

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 | 2.990E-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 | 6.329E-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 | 2.598E-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 | 4.357E-03 | ALEACH (6) |

Appendix H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 7

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR AM.ROF

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 | 9.000E+01 | 1.000E+02 | --- | SOURCEXY (1) |
| LYOT | Length of Primary contamination in Y Direction | 1.120E+02 | 1.000E+02 | --- | SOURCEXY (2) |
| LYOT | Smaller X coordinate of Agricultural Area 1 | -3.580E+02 | 3.438E+01 | --- | AGRIXY (1,1) |
| LYOT | Larger X coordinate of Agricultural Area 1 | 5.420E+02 | 6.563E+01 | --- | AGRIXY (2,1) |
| LYOT | Smaller Y coordinate of Agricultural Area 1 | -1.100E+02 | 2.340E+02 | --- | AGRIXY (3,1) |
| LYOT | Larger Y coordinate of Agricultural Area 1 | 3.900E+02 | 2.660E+02 | --- | AGRIXY (4,1) |
| LYOT | Smaller X coordinate of Agricultural Area 2 | -3.580E+02 | 3.438E+01 | --- | AGRIXY (1,2) |
| LYOT | Larger X coordinate of Agricultural Area 2 | 5.420E+02 | 6.563E+01 | --- | AGRIXY (2,2) |
| LYOT | Smaller Y coordinate of Agricultural Area 2 | -1.100E+02 | 2.680E+02 | --- | AGRIXY (3,2) |
| LYOT | Larger Y coordinate of Agricultural Area 2 | 3.900E+02 | 3.000E+02 | --- | AGRIXY (4,2) |
| LYOT | Smaller X coordinate of Agricultural Area 3 | -3.580E+02 | 0.000E+00 | --- | AGRIXY (1,3) |
| LYOT | Larger X coordinate of Agricultural Area 3 | 5.420E+02 | 1.000E+02 | --- | AGRIXY (2,3) |
| LYOT | Smaller Y coordinate of Agricultural Area 3 | -1.100E+02 | 4.500E+02 | --- | AGRIXY (3,3) |
| LYOT | Larger Y coordinate of Agricultural Area 3 | 3.900E+02 | 5.500E+02 | --- | AGRIXY (4,3) |
| LYOT | Smaller X coordinate of Agricultural Area 4 | -3.580E+02 | 0.000E+00 | --- | AGRIXY (1,4) |
| LYOT | Larger X coordinate of Agricultural Area 4 | 5.420E+02 | 1.000E+02 | --- | AGRIXY (2,4) |
| LYOT | Smaller Y coordinate of Agricultural Area 4 | -1.100E+02 | 3.000E+02 | --- | AGRIXY (3,4) |
| LYOT | Larger Y coordinate of Agricultural Area 4 | 3.900E+02 | 4.000E+02 | --- | AGRIXY (4,4) |
| LYOT | Smaller X coordinate of Dwelling Area | 0.000E+00 | 3.438E+01 | --- | DWELLXY (1) |
| LYOT | Larger X coordinate of Dwelling Area | 1.000E+00 | 6.563E+01 | --- | DWELLXY (2) |
| LYOT | Smaller Y coordinate of Dwelling Area | 0.000E+00 | 1.340E+02 | --- | DWELLXY (3) |
| LYOT | Larger Y coordinate of Dwelling Area | 1.000E+00 | 1.660E+02 | --- | DWELLXY (4) |
| LYOT | Smaller X coordinate of Surface water body | -3.580E+02 | -1.000E+02 | --- | SWXY (1) |
| LYOT | Larger X coordinate of Surface water body | 7.420E+02 | 2.000E+02 | --- | SWXY (2) |
| LYOT | Smaller Y coordinate of Surface water body | -2.100E+02 | 5.500E+02 | --- | SWXY (3) |
| LYOT | Larger Y coordinate of Surface water body | -1.100E+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 H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 8

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR 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**2) | 1.008E+04 | 1.000E+04 | --- | AREA |
| PRCZ | Length parallel to aquifer flow (m) | 1.000E+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) | 5.875E-02 | 2.000E-01 | --- | RI |
| PRCZ | Evapotranspiration coefficient | 6.500E-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 | --- | CONVPRACPC |
| 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**3) | 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**3) | 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**2) | 4.500E+05 | 1.000E+03 | --- | AREAO(1) |
| AGRI | Fraction of Agri. Area 1 directly over the c.z. | 2.240E-02 | 0.000E+00 | --- | FAREA_PLANT(1) |
| AGRI | Evapotranspiration coefficient in Agri. Area 1 | 6.500E-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 | --- | DPHMXG(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 | --- | CONVPRAC(1) |
| AGRI | Total porosity of soil in Agri. Area 1 | not used | 4.000E-01 | --- | TPOF(1) |

Appendix H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 9

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR AM.ROF

Site-Specific Parameter Summary (continued)

| Menu | Parameter | User Input | Default | RESRAD computed | Parameter Name |
|------|---|---------------|-----------|--------------------|-------------------|
| AGRI | Areal extent of Agricultural Area 2 (m**2) | 4.500E+05 | 1.000E+03 | --- | AREAO (2) |
| AGRI | Fraction of Agri. Area 2 directly over the c.z. | 2.240E-02 | 0.000E+00 | --- | FAREA_PLANT (2) |
| AGRI | Evapotranspiration coefficient in Agri. Area 2 | 6.500E-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) | 4.500E+05 | 1.000E+04 | --- | AREAO (3) |
| AGRI | Fraction of Agri. Area 3 directly over the c.z. | 2.240E-02 | 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) | 4.500E+05 | 1.000E+04 | --- | AREAO (4) |
| AGRI | Fraction of Agri. Area 4 directly over the c.z. | 2.240E-02 | 0.000E+00 | --- | FAREA_PLANT (4) |
| AGRI | Evapotranspiration coefficient in Agri. Area 4 | 6.200E-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) | 1.000E+00 | 1.000E+03 | --- | AREADWELL |
| 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 H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 10

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR AM.ROF

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 | --- | SLPLENSTDWELL |
| DWEL | Cropping-management factor of Dwelling site | 3.000E-03 | 3.000E-03 | --- | CRPMANGDWELL |
| DWEL | Conservation practice factor of Offsite Dwelling sit | 1.000E+00 | 1.000E+00 | --- | CONVPRACDWELL |
| 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) |

Appendix H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 11

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR 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 H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 12

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR 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 H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 13

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR 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 H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 14

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR 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 H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 15

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR 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 H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 16

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR 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 | 6.540E-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 H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 17

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR 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 H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 18

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR 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 H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 19

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR 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 H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 20

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR 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 H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 21

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR 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 H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 22

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR 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 H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 23

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR 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 H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 24

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR 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 H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 25

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR 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 H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 26

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR 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) | 1.000E+02 | 1.000E+02 | --- | OFFFLPAQW |
| GWTR | Contamination to Well c/c distance normal to flow, m | 0.000E+00 | 0.000E+00 | --- | OFFFLNAQW |
| GWTR | Distance from d/g edge of cz to surface water, (m) | 4.500E+02 | 4.500E+02 | --- | OFFFLPAQS |
| GWTR | Contamination to near edge of swb,c/c normal to flow | -1.500E+02 | -1.500E+02 | --- | OFFFLNAQSN |
| GWTR | Contamination to far edge of swb, c/c normal to flow | 1.500E+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 H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 27

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR AM.ROF

Site-Specific Parameter Summary (continued)

| Menu | Parameter | User Input | Default | RESRAD computed | Parameter Name |
|------|--|------------|-----------|-----------------|----------------|
| GWTR | Retardation factor flag for groundwater transport 0 = (total porosity + distribution coefficient*dry bulk density) / total porosity | 0 | 0 | --- | |
| 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 | --- | DPTHASQW |
| SZNE | Thickness of saturated zone (m) | 1.000E+02 | 1.000E+02 | --- | DPTHASQ |
| 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 | --- | K1Co1 |
| SZNE | Water - Mobile Colloids Distribution coefficient | 0.000E+00 | 0.000E+00 | --- | K3Co1 |
| WTRU | Drinking water intake (L/yr) | 0.000E+00 | 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 | 0.000E+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 | 0.000E+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 | 1.000E+00 | 0.000E+00 | --- | FSWLV(1) |
| WTRU | Fraction of livestock water 1 from well water | 0.000E+00 | 1.000E+00 | --- | FWWLV(1) |
| WTRU | Livestock water intake for milk (L/day) | 0.000E+00 | 1.600E+02 | --- | LWI(2) |

Appendix H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 28

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR 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 | 0.000E+00 | 0.000E+00 | --- | FSWLV(2) |
| WTRU | Fraction of dairy cow water from well water | 0.000E+00 | 1.000E+00 | --- | FWWL(2) |
| WTRU | Irrigation rate in Agricultural Area 1 (m/yr) | 5.875E-02 | 2.000E-01 | --- | RIRRIG(1) |
| WTRU | Fraction of irrigation water 1 from surface water | 5.000E-01 | 0.000E+00 | --- | FSWIR(1) |
| WTRU | Fraction of irrigation water 1 from well water | 5.000E-01 | 1.000E+00 | --- | FWWIR(1) |
| WTRU | Irrigation rate in Agricultural Area 2 (m/yr) | 5.875E-02 | 2.000E-01 | --- | RIRRIG(2) |
| WTRU | Fraction of irrigation water 2 from surface water | 5.000E-01 | 0.000E+00 | --- | FSWIR(2) |
| WTRU | Fraction of irrigation water 2 from well water | 5.000E-01 | 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 | 0.000E+00 | 1.000E+00 | --- | FWWIR(3) |
| WTRU | Irrigation rate in Agricultural Area 4 (m/yr) | 0.000E+00 | 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 | 0.000E+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 | 0.000E+00 | 1.000E+00 | --- | FWWIRDWELL |
| WTRU | Well pumping rate (m ³ /yr) | 4.227E+04 | 5.100E+03 | --- | UW |
| SWBY | Sediment delivery ratio | 1.000E+00 | 1.000E+00 | --- | SDR |
| SWBY | Volume of surface water body | 1.100E+05 | 1.500E+05 | --- | VLAKE |
| SWBY | Mean residence time of water in surface water body | 2.740E-03 | 1.000E+00 | --- | TLAKE |
| SWBY | Surface area of water in surface water body | 1.100E+05 | 9.000E+04 | --- | ALAKE |
| INGE | Fish consumption (kg/yr) | 1.630E+01 | 5.400E+00 | --- | DFI(1) |
| INGE | Fraction of Fish from affected area | 1.000E+00 | 5.000E-01 | --- | FFISH(1) |
| INGE | Other Aquatic food consumption (kg/yr) | 0.000E+00 | 9.000E-01 | --- | DFI(2) |
| INGE | Fraction of Aquatic food from affected area | 1.000E+00 | 5.000E-01 | --- | FFISH(2) |
| INGE | Non-Leafy vegetables consumption (kg/yr) | 8.260E+01 | 1.600E+02 | --- | DVI(1) |
| INGE | Fraction of vegetable 1 from affected area | 1.000E+00 | 5.000E-01 | --- | FVEG(1) |
| INGE | Leafy vegetable consumption (kg/yr) | 5.900E+01 | 1.400E+01 | --- | DVI(2) |
| INGE | Fraction of vegetable 2 from affected area | 1.000E+00 | 5.000E-01 | --- | FVEG(2) |
| INGE | Meat 1 consumption (kg/yr) | 5.220E+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) | 0.000E+00 | 9.200E+01 | --- | DMI(2) |
| INGE | Fraction of milk from affected area | 1.000E+00 | 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 ²) | 1.750E+00 | 7.000E-01 | --- | YIELD(1) |
| VEGE | Growing Season for Non-Leafy (years) | 1.700E-01 | 1.700E-01 | --- | GROWTIME(1) |
| VEGE | Translocation Factor for Non-Leafy | 1.000E-01 | 1.000E-01 | --- | FOLI_F(1) |
| VEGE | Weathering Removal Constant for Non-Leafy | 1.800E+01 | 2.000E+01 | --- | RWEATHER(1) |
| VEGE | Foliar Interception Fraction for dust Non-Leafy | 2.500E-01 | 2.500E-01 | --- | FINTCEPT(1,1) |
| VEGE | Foliar Interception-n Fract-n for irrigation Non-Leafy | 2.500E-01 | 2.500E-01 | --- | FINTCEPT(1,2) |
| VEGE | Depth of roots for Non-Leafy (m) | 9.000E-01 | 1.200E+00 | --- | DROOT(1) |
| VEGE | Wet weight crop yield for Leafy (kg/m ²) | 1.500E+00 | 1.500E+00 | --- | YIELD(2) |
| VEGE | Growing Season for Leafy (years) | 2.500E-01 | 2.500E-01 | --- | GROWTIME(2) |

Appendix H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 29

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR AM.ROF

Site-Specific Parameter Summary (continued)

| Menu | Parameter | User Input | Default | RESRAD computed | Parameter Name |
|------|--|------------|-----------|-----------------|----------------|
| VEGE | Translocation Factor for Leafy | 1.000E+00 | 1.000E+00 | --- | FOLI_F(2) |
| VEGE | Weathering Removal Constant for Leafy | 1.800E+01 | 2.000E+01 | --- | RWEATHER(2) |
| VEGE | Foliar Interception Fraction for Leafy | 2.500E-01 | 2.500E-01 | --- | FINTCEPT(2,1) |
| VEGE | Foliar Interception-n Fract-n for irrigation Leafy | 6.700E-01 | 2.500E-01 | --- | FINTCEPT(2,2) |
| VEGE | Depth of roots for Leafy (m) | 9.000E-01 | 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 Interception-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 Interception-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) | 2.250E+00 | 1.400E+01 | --- | LFI(1,1) |
| LINT | Soil intake with feed 1 by livestock 1 (kg/day) | 5.000E-01 | 1.000E-01 | --- | LSI(1,1) |
| LINT | Feed 1 intake by dairy cow (kg/day) | 0.000E+00 | 4.400E+01 | --- | LFI(2,1) |
| LINT | Soil intake with feed 1 by dairy cow (kg/day) | 0.000E+00 | 4.000E-01 | --- | LSI(2,1) |
| LINT | Feed 2 intake by livestock 1 (kg/day) | 0.000E+00 | 5.400E+01 | --- | LFI(1,2) |
| LINT | Soil intake with feed 2 by livestock 1 (kg/day) | 0.000E+00 | 4.000E-01 | --- | LSI(1,2) |
| LINT | Feed 2 intake by dairy cow (kg/day) | 0.000E+00 | 1.100E+01 | --- | LFI(2,2) |
| LINT | Soil intake with feed 2 by dairy cow (kg/day) | 0.000E+00 | 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 H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 30

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR 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: | 6.167E+00 | 6.000E+00 | --- | RAD_SHAPE (1) |
| SEXT | Outer annular radius (m), ring 2: | 1.233E+01 | 1.200E+01 | --- | RAD_SHAPE (2) |
| SEXT | Outer annular radius (m), ring 3: | 1.850E+01 | 1.800E+01 | --- | RAD_SHAPE (3) |
| SEXT | Outer annular radius (m), ring 4: | 2.467E+01 | 2.400E+01 | --- | RAD_SHAPE (4) |
| SEXT | Outer annular radius (m), ring 5: | 3.083E+01 | 3.000E+01 | --- | RAD_SHAPE (5) |
| SEXT | Outer annular radius (m), ring 6: | 3.700E+01 | 3.600E+01 | --- | RAD_SHAPE (6) |
| SEXT | Outer annular radius (m), ring 7: | 4.317E+01 | 4.200E+01 | --- | RAD_SHAPE (7) |
| SEXT | Outer annular radius (m), ring 8: | 4.933E+01 | 4.800E+01 | --- | RAD_SHAPE (8) |
| SEXT | Outer annular radius (m), ring 9: | 5.550E+01 | 5.400E+01 | --- | RAD_SHAPE (9) |
| SEXT | Outer annular radius (m), ring 10: | 6.167E+01 | 6.000E+01 | --- | RAD_SHAPE (10) |
| SEXT | Outer annular radius (m), ring 11: | 6.783E+01 | 6.600E+01 | --- | RAD_SHAPE (11) |
| SEXT | Outer annular radius (m), ring 12: | 7.400E+01 | 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 | 9.700E-01 | 1.000E+00 | --- | FRACA (6) |
| SEXT | Ring 7 | 1.000E+00 | 1.000E+00 | --- | FRACA (7) |
| SEXT | Ring 8 | 8.600E-01 | 1.000E+00 | --- | FRACA (8) |
| SEXT | Ring 9 | 6.500E-01 | 7.700E-01 | --- | FRACA (9) |
| SEXT | Ring 10 | 4.000E-01 | 3.700E-01 | --- | FRACA (10) |
| SEXT | Ring 11 | 1.600E-01 | 1.700E-01 | --- | FRACA (11) |
| SEXT | Ring 12 | 2.700E-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: | 1.200E+01 | 1.325E+01 | --- | RAD_SHAPE (13) |
| SEXT | Outer annular radius (m), ring 14: | 2.400E+01 | 2.650E+01 | --- | RAD_SHAPE (14) |
| SEXT | Outer annular radius (m), ring 15: | 3.600E+01 | 3.975E+01 | --- | RAD_SHAPE (15) |
| SEXT | Outer annular radius (m), ring 16: | 4.800E+01 | 5.300E+01 | --- | RAD_SHAPE (16) |
| SEXT | Outer annular radius (m), ring 17: | 6.000E+01 | 6.625E+01 | --- | RAD_SHAPE (17) |
| SEXT | Outer annular radius (m), ring 18: | 7.200E+01 | 7.950E+01 | --- | RAD_SHAPE (18) |
| SEXT | Outer annular radius (m), ring 19: | 8.400E+01 | 9.275E+01 | --- | RAD_SHAPE (19) |
| SEXT | Outer annular radius (m), ring 20: | 9.600E+01 | 1.060E+02 | --- | RAD_SHAPE (20) |
| SEXT | Outer annular radius (m), ring 21: | 1.080E+02 | 1.193E+02 | --- | RAD_SHAPE (21) |
| SEXT | Outer annular radius (m), ring 22: | 1.200E+02 | 1.325E+02 | --- | RAD_SHAPE (22) |
| SEXT | Outer annular radius (m), ring 23: | 1.320E+02 | 1.458E+02 | --- | RAD_SHAPE (23) |
| SEXT | Outer annular radius (m), ring 24: | 1.440E+02 | 1.590E+02 | --- | RAD_SHAPE (24) |

Appendix H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 31

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR 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 13 | 3.000E-01 | 0.000E+00 | --- | FRACA (13) |
| SEXT | Ring 14 | 3.000E-01 | 0.000E+00 | --- | FRACA (14) |
| SEXT | Ring 15 | 3.000E-01 | 0.000E+00 | --- | FRACA (15) |
| SEXT | Ring 16 | 2.600E-01 | 2.400E-02 | --- | FRACA (16) |
| SEXT | Ring 17 | 2.500E-01 | 1.900E-01 | --- | FRACA (17) |
| SEXT | Ring 18 | 2.500E-01 | 2.400E-01 | --- | FRACA (18) |
| SEXT | Ring 19 | 2.500E-01 | 2.000E-01 | --- | FRACA (19) |
| SEXT | Ring 20 | 2.200E-01 | 1.700E-01 | --- | FRACA (20) |
| SEXT | Ring 21 | 1.700E-01 | 1.500E-01 | --- | FRACA (21) |
| SEXT | Ring 22 | 1.200E-01 | 1.300E-01 | --- | FRACA (22) |
| SEXT | Ring 23 | 4.900E-02 | 1.200E-01 | --- | FRACA (23) |
| SEXT | Ring 24 | 1.200E-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: | 2.807E+01 | 2.807E+01 | --- | RAD_SHAPE (25) |
| SEXT | Outer annular radius (m), ring 26: | 4.169E+01 | 4.169E+01 | --- | RAD_SHAPE (26) |
| SEXT | Outer annular radius (m), ring 27: | 5.531E+01 | 5.531E+01 | --- | RAD_SHAPE (27) |
| SEXT | Outer annular radius (m), ring 28: | 6.893E+01 | 6.893E+01 | --- | RAD_SHAPE (28) |
| SEXT | Outer annular radius (m), ring 29: | 8.255E+01 | 8.255E+01 | --- | RAD_SHAPE (29) |
| SEXT | Outer annular radius (m), ring 30: | 9.617E+01 | 9.617E+01 | --- | RAD_SHAPE (30) |
| SEXT | Outer annular radius (m), ring 31: | 1.071E+02 | 1.071E+02 | --- | RAD_SHAPE (31) |
| SEXT | Outer annular radius (m), ring 32: | 1.181E+02 | 1.181E+02 | --- | RAD_SHAPE (32) |
| SEXT | Outer annular radius (m), ring 33: | 1.291E+02 | 1.291E+02 | --- | RAD_SHAPE (33) |
| SEXT | Outer annular radius (m), ring 34: | 1.400E+02 | 1.400E+02 | --- | RAD_SHAPE (34) |
| SEXT | Outer annular radius (m), ring 35: | 1.538E+02 | 1.538E+02 | --- | RAD_SHAPE (35) |
| SEXT | Outer annular radius (m), ring 36: | 1.675E+02 | 1.675E+02 | --- | RAD_SHAPE (36) |
| SEXT | Fractions of annular areas within AREA: | | | | |
| SEXT | Ring 25 | 0.000E+00 | 0.000E+00 | --- | FRACA (25) |
| SEXT | Ring 26 | 7.480E-02 | 7.480E-02 | --- | FRACA (26) |
| SEXT | Ring 27 | 1.449E-01 | 1.449E-01 | --- | FRACA (27) |
| SEXT | Ring 28 | 1.703E-01 | 1.703E-01 | --- | FRACA (28) |
| SEXT | Ring 29 | 1.855E-01 | 1.855E-01 | --- | FRACA (29) |
| SEXT | Ring 30 | 1.957E-01 | 1.957E-01 | --- | FRACA (30) |
| SEXT | Ring 31 | 1.795E-01 | 1.795E-01 | --- | FRACA (31) |
| SEXT | Ring 32 | 1.499E-01 | 1.499E-01 | --- | FRACA (32) |
| SEXT | Ring 33 | 1.313E-01 | 1.313E-01 | --- | FRACA (33) |
| SEXT | Ring 34 | 1.176E-01 | 1.176E-01 | --- | FRACA (34) |
| SEXT | Ring 35 | 7.121E-02 | 7.121E-02 | --- | FRACA (35) |
| SEXT | Ring 36 | 1.637E-02 | 1.637E-02 | --- | FRACA (36) |

Appendix H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 32

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR AM.ROF

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: | 2.807E+01 | 2.807E+01 | --- | RAD_SHAPE (37) |
| SEXT | Outer annular radius (m), ring 38: | 4.169E+01 | 4.169E+01 | --- | RAD_SHAPE (38) |
| SEXT | Outer annular radius (m), ring 39: | 5.531E+01 | 5.531E+01 | --- | RAD_SHAPE (39) |
| SEXT | Outer annular radius (m), ring 40: | 6.893E+01 | 6.893E+01 | --- | RAD_SHAPE (40) |
| SEXT | Outer annular radius (m), ring 41: | 8.255E+01 | 8.255E+01 | --- | RAD_SHAPE (41) |
| SEXT | Outer annular radius (m), ring 42: | 9.617E+01 | 9.617E+01 | --- | RAD_SHAPE (42) |
| SEXT | Outer annular radius (m), ring 43: | 1.071E+02 | 1.071E+02 | --- | RAD_SHAPE (43) |
| SEXT | Outer annular radius (m), ring 44: | 1.181E+02 | 1.181E+02 | --- | RAD_SHAPE (44) |
| SEXT | Outer annular radius (m), ring 45: | 1.291E+02 | 1.291E+02 | --- | RAD_SHAPE (45) |
| SEXT | Outer annular radius (m), ring 46: | 1.400E+02 | 1.400E+02 | --- | RAD_SHAPE (46) |
| SEXT | Outer annular radius (m), ring 47: | 1.538E+02 | 1.538E+02 | --- | RAD_SHAPE (47) |
| SEXT | Outer annular radius (m), ring 48: | 1.675E+02 | 1.675E+02 | --- | RAD_SHAPE (48) |
| SEXT | Fractions of annular areas within AREA: | | | | |
| SEXT | Ring 37 | 0.000E+00 | 0.000E+00 | --- | FRACA (37) |
| SEXT | Ring 38 | 7.480E-02 | 7.480E-02 | --- | FRACA (38) |
| SEXT | Ring 39 | 1.449E-01 | 1.449E-01 | --- | FRACA (39) |
| SEXT | Ring 40 | 1.703E-01 | 1.703E-01 | --- | FRACA (40) |
| SEXT | Ring 41 | 1.855E-01 | 1.855E-01 | --- | FRACA (41) |
| SEXT | Ring 42 | 1.957E-01 | 1.957E-01 | --- | FRACA (42) |
| SEXT | Ring 43 | 1.795E-01 | 1.795E-01 | --- | FRACA (43) |
| SEXT | Ring 44 | 1.499E-01 | 1.499E-01 | --- | FRACA (44) |
| SEXT | Ring 45 | 1.313E-01 | 1.313E-01 | --- | FRACA (45) |
| SEXT | Ring 46 | 1.176E-01 | 1.176E-01 | --- | FRACA (46) |
| SEXT | Ring 47 | 7.121E-02 | 7.121E-02 | --- | FRACA (47) |
| SEXT | Ring 48 | 1.637E-02 | 1.637E-02 | --- | 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: | 1.000E+01 | 1.000E+01 | --- | RAD_SHAPE (49) |
| SEXT | Outer annular radius (m), ring 50: | 1.000E+01 | 1.000E+01 | --- | RAD_SHAPE (50) |
| SEXT | Outer annular radius (m), ring 51: | 1.000E+01 | 1.000E+01 | --- | RAD_SHAPE (51) |
| SEXT | Outer annular radius (m), ring 52: | 1.000E+01 | 1.000E+01 | --- | RAD_SHAPE (52) |
| SEXT | Outer annular radius (m), ring 53: | 1.000E+01 | 1.000E+01 | --- | RAD_SHAPE (53) |
| SEXT | Outer annular radius (m), ring 54: | 1.000E+01 | 1.000E+01 | --- | RAD_SHAPE (54) |
| SEXT | Outer annular radius (m), ring 55: | 1.000E+01 | 1.000E+01 | --- | RAD_SHAPE (55) |
| SEXT | Outer annular radius (m), ring 56: | 1.000E+01 | 1.000E+01 | --- | RAD_SHAPE (56) |
| SEXT | Outer annular radius (m), ring 57: | 1.000E+01 | 1.000E+01 | --- | RAD_SHAPE (57) |
| SEXT | Outer annular radius (m), ring 58: | 1.000E+01 | 1.000E+01 | --- | RAD_SHAPE (58) |
| SEXT | Outer annular radius (m), ring 59: | 1.000E+01 | 1.000E+01 | --- | RAD_SHAPE (59) |
| SEXT | Outer annular radius (m), ring 60: | 1.000E+01 | 1.000E+01 | --- | RAD_SHAPE (60) |

Appendix H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 33

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR 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 | 0.000E+00 | 0.000E+00 | --- | FRACA (50) |
| SEXT | Ring 51 | 0.000E+00 | 0.000E+00 | --- | FRACA (51) |
| SEXT | Ring 52 | 0.000E+00 | 0.000E+00 | --- | FRACA (52) |
| SEXT | Ring 53 | 0.000E+00 | 0.000E+00 | --- | FRACA (53) |
| SEXT | Ring 54 | 0.000E+00 | 0.000E+00 | --- | FRACA (54) |
| SEXT | Ring 55 | 0.000E+00 | 0.000E+00 | --- | FRACA (55) |
| SEXT | Ring 56 | 0.000E+00 | 0.000E+00 | --- | FRACA (56) |
| SEXT | Ring 57 | 0.000E+00 | 0.000E+00 | --- | FRACA (57) |
| SEXT | Ring 58 | 0.000E+00 | 0.000E+00 | --- | FRACA (58) |
| SEXT | Ring 59 | 0.000E+00 | 0.000E+00 | --- | FRACA (59) |
| SEXT | Ring 60 | 0.000E+00 | 0.000E+00 | --- | 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: | 1.000E+01 | 1.000E+01 | --- | RAD_SHAPE (61) |
| SEXT | Outer annular radius (m), ring 62: | 1.000E+01 | 1.000E+01 | --- | RAD_SHAPE (62) |
| SEXT | Outer annular radius (m), ring 63: | 1.000E+01 | 1.000E+01 | --- | RAD_SHAPE (63) |
| SEXT | Outer annular radius (m), ring 64: | 1.000E+01 | 1.000E+01 | --- | RAD_SHAPE (64) |
| SEXT | Outer annular radius (m), ring 65: | 1.000E+01 | 1.000E+01 | --- | RAD_SHAPE (65) |
| SEXT | Outer annular radius (m), ring 66: | 1.000E+01 | 1.000E+01 | --- | RAD_SHAPE (66) |
| SEXT | Outer annular radius (m), ring 67: | 1.000E+01 | 1.000E+01 | --- | RAD_SHAPE (67) |
| SEXT | Outer annular radius (m), ring 68: | 1.000E+01 | 1.000E+01 | --- | RAD_SHAPE (68) |
| SEXT | Outer annular radius (m), ring 69: | 1.000E+01 | 1.000E+01 | --- | RAD_SHAPE (69) |
| SEXT | Outer annular radius (m), ring 70: | 1.000E+01 | 1.000E+01 | --- | RAD_SHAPE (70) |
| SEXT | Outer annular radius (m), ring 71: | 1.000E+01 | 1.000E+01 | --- | RAD_SHAPE (71) |
| SEXT | Outer annular radius (m), ring 72: | 1.000E+01 | 1.000E+01 | --- | RAD_SHAPE (72) |
| SEXT | Fractions of annular areas within AREA: | | | | |
| SEXT | Ring 61 | 0.000E+00 | 0.000E+00 | --- | FRACA (61) |
| SEXT | Ring 62 | 0.000E+00 | 0.000E+00 | --- | FRACA (62) |
| SEXT | Ring 63 | 0.000E+00 | 0.000E+00 | --- | FRACA (63) |
| SEXT | Ring 64 | 0.000E+00 | 0.000E+00 | --- | FRACA (64) |
| SEXT | Ring 65 | 0.000E+00 | 0.000E+00 | --- | FRACA (65) |
| SEXT | Ring 66 | 0.000E+00 | 0.000E+00 | --- | FRACA (66) |
| SEXT | Ring 67 | 0.000E+00 | 0.000E+00 | --- | FRACA (67) |
| SEXT | Ring 68 | 0.000E+00 | 0.000E+00 | --- | FRACA (68) |
| SEXT | Ring 69 | 0.000E+00 | 0.000E+00 | --- | FRACA (69) |
| SEXT | Ring 70 | 0.000E+00 | 0.000E+00 | --- | FRACA (70) |
| SEXT | Ring 71 | 0.000E+00 | 0.000E+00 | --- | FRACA (71) |
| SEXT | Ring 72 | 0.000E+00 | 0.000E+00 | --- | 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 | 1.358E-01 | 0.000E+00 | --- | FOTD |
| OCCU | Fraction of time spent indoors in Offsite Dwelling | 0.000E+00 | 5.000E-01 | --- | FINDDWELL |
| OCCU | Fraction of time spent outdoors in Offsite Dwelling | 0.000E+00 | 1.000E-01 | --- | FOTDDWELL |
| OCCU | Fraction of time spent outdoors in agri. area 1 | 1.045E-01 | 1.000E-01 | --- | OCCUPANCY (1) |
| OCCU | Fraction of time spent outdoors in agri. area 2 | 8.330E-02 | 1.000E-01 | --- | OCCUPANCY (2) |

Appendix H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 34

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR 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 | 0.000E+00 | 1.000E-01 | --- | OCCUPANCY (3) |
| OCCU | Fraction of time spent outdoors in agri. area 4 | 0.000E+00 | 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 zone 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 pature | 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 H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 35

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR 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 | active |
| 4 -- meat ingestion | active |
| 5 -- milk ingestion | active |
| 6 -- aquatic foods | active |
| 7 -- drinking water | active |
| 8 -- soil ingestion | active |
| 9 -- radon | suppressed |

Appendix H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 36

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR AM.ROF

| Contaminated Zone Dimensions | Initial Soil Concentrations, pCi/g |
|------------------------------|------------------------------------|
| Area: 10080.00 square meters | Am-241 3.070E-01 |
| Thickness: 1.00 meters | Cs-137 4.470E-01 |
| Cover Depth: 0.00 meters | Sr-90 2.250E-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)

| | 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 |
|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 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): | 2.384E-01 | 2.321E-01 | 2.200E-01 | 2.032E-01 | 1.739E-01 | 1.118E-01 | 4.828E-02 | 9.545E-03 | 4.225E-03 | 1.670E-03 |
| M(t): | 9.537E-03 | 9.283E-03 | 8.799E-03 | 8.128E-03 | 6.957E-03 | 4.471E-03 | 1.931E-03 | 3.818E-04 | 1.690E-04 | 6.679E-05 |

Maximum TDOSE(t): 2.384E-01 mrem/yr at t = 0 years

Appendix H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 37

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR 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 | 1.43E-17 | 0 | 7.14E-11 | 0 | 0.00E+00 | 0 | 2.66E-11 | 0 | 1.85E-14 | 0 | 0.00E+00 | 0 | 2.18E-17 | 0 | 0.00E+00 | 0 |
| Cs-137 | 1.46E-15 | 0 | 9.39E-11 | 0 | 0.00E+00 | 0 | 5.26E-13 | 0 | 2.19E-13 | 0 | 0.00E+00 | 0 | 4.27E-19 | 0 | 0.00E+00 | 0 |
| Sr-90 | 5.12E-18 | 0 | 4.25E-12 | 0 | 0.00E+00 | 0 | 8.00E-13 | 0 | 8.81E-14 | 0 | 0.00E+00 | 0 | 6.10E-19 | 0 | 0.00E+00 | 0 |
| Total | 1.48E-15 | 0 | 1.70E-10 | 0 | 0.00E+00 | 0 | 2.80E-11 | 0 | 3.25E-13 | 0 | 0.00E+00 | 0 | 2.28E-17 | 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 | 1.78E-03 | 1 | 3.87E-04 | 0 | 0.00E+00 | 0 | 3.54E-03 | 1 | 3.28E-05 | 0 | 0.00E+00 | 0 | 2.77E-03 | 1 | 8.52E-03 | 4 |
| Cs-137 | 1.94E-01 | 81 | 4.01E-08 | 0 | 0.00E+00 | 0 | 2.80E-03 | 1 | 4.57E-04 | 0 | 0.00E+00 | 0 | 5.49E-05 | 0 | 1.97E-01 | 83 |
| Sr-90 | 6.95E-04 | 0 | 8.15E-07 | 0 | 0.00E+00 | 0 | 3.19E-02 | 13 | 3.68E-04 | 0 | 0.00E+00 | 0 | 8.32E-05 | 0 | 3.30E-02 | 14 |
| Total | 1.96E-01 | 82 | 3.88E-04 | 0 | 0.00E+00 | 0 | 3.82E-02 | 16 | 8.58E-04 | 0 | 0.00E+00 | 0 | 2.91E-03 | 1 | 2.38E-01 | 100 |

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

Appendix H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 38

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR 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 | 5.65E-17 | 0 | 9.47E-11 | 0 | 0.00E+00 | 0 | 3.51E-11 | 0 | 2.53E-14 | 0 | 0.00E+00 | 0 | 8.62E-17 | 0 | 0.00E+00 | 0 |
| Cs-137 | 5.66E-15 | 0 | 1.22E-10 | 0 | 0.00E+00 | 0 | 6.81E-13 | 0 | 2.94E-13 | 0 | 0.00E+00 | 0 | 1.66E-18 | 0 | 0.00E+00 | 0 |
| Sr-90 | 1.83E-17 | 0 | 5.40E-12 | 0 | 0.00E+00 | 0 | 1.02E-12 | 0 | 1.15E-13 | 0 | 0.00E+00 | 0 | 2.18E-18 | 0 | 0.00E+00 | 0 |
| Total | 5.73E-15 | 0 | 2.22E-10 | 0 | 0.00E+00 | 0 | 3.68E-11 | 0 | 4.34E-13 | 0 | 0.00E+00 | 0 | 9.01E-17 | 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 | 1.78E-03 | 1 | 3.87E-04 | 0 | 0.00E+00 | 0 | 3.54E-03 | 2 | 3.27E-05 | 0 | 0.00E+00 | 0 | 2.77E-03 | 1 | 8.50E-03 | 4 |
| Cs-137 | 1.89E-01 | 81 | 3.91E-08 | 0 | 0.00E+00 | 0 | 2.74E-03 | 1 | 4.46E-04 | 0 | 0.00E+00 | 0 | 5.36E-05 | 0 | 1.92E-01 | 83 |
| Sr-90 | 6.58E-04 | 0 | 7.72E-07 | 0 | 0.00E+00 | 0 | 3.02E-02 | 13 | 3.49E-04 | 0 | 0.00E+00 | 0 | 7.88E-05 | 0 | 3.13E-02 | 13 |
| Total | 1.91E-01 | 83 | 3.87E-04 | 0 | 0.00E+00 | 0 | 3.65E-02 | 16 | 8.29E-04 | 0 | 0.00E+00 | 0 | 2.90E-03 | 1 | 2.32E-01 | 100 |

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

Appendix H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 39

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR 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 | 1.46E-16 | 0 | 9.44E-11 | 0 | 0.00E+00 | 0 | 3.49E-11 | 0 | 2.52E-14 | 0 | 0.00E+00 | 0 | 2.22E-16 | 0 | 0.00E+00 | 0 |
| Cs-137 | 1.39E-14 | 0 | 1.17E-10 | 0 | 0.00E+00 | 0 | 6.54E-13 | 0 | 2.80E-13 | 0 | 0.00E+00 | 0 | 4.09E-18 | 0 | 0.00E+00 | 0 |
| Sr-90 | 3.66E-17 | 0 | 4.85E-12 | 0 | 0.00E+00 | 0 | 9.50E-13 | 0 | 1.04E-13 | 0 | 0.00E+00 | 0 | 4.37E-18 | 0 | 0.00E+00 | 0 |
| Total | 1.41E-14 | 0 | 2.16E-10 | 0 | 0.00E+00 | 0 | 3.65E-11 | 0 | 4.09E-13 | 0 | 0.00E+00 | 0 | 2.31E-16 | 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 | 1.77E-03 | 1 | 3.85E-04 | 0 | 0.00E+00 | 0 | 3.52E-03 | 2 | 3.26E-05 | 0 | 0.00E+00 | 0 | 2.76E-03 | 1 | 8.47E-03 | 4 |
| Cs-137 | 1.80E-01 | 82 | 3.73E-08 | 0 | 0.00E+00 | 0 | 2.61E-03 | 1 | 4.26E-04 | 0 | 0.00E+00 | 0 | 5.11E-05 | 0 | 1.83E-01 | 83 |
| Sr-90 | 5.91E-04 | 0 | 6.94E-07 | 0 | 0.00E+00 | 0 | 2.71E-02 | 12 | 3.14E-04 | 0 | 0.00E+00 | 0 | 7.08E-05 | 0 | 2.81E-02 | 13 |
| Total | 1.83E-01 | 83 | 3.86E-04 | 0 | 0.00E+00 | 0 | 3.33E-02 | 15 | 7.72E-04 | 0 | 0.00E+00 | 0 | 2.88E-03 | 1 | 2.20E-01 | 100 |

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

Appendix H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 40

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR 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 | 2.78E-16 | 0 | 9.40E-11 | 0 | 0.00E+00 | 0 | 3.48E-11 | 0 | 2.51E-14 | 0 | 0.00E+00 | 0 | 4.24E-16 | 0 | 0.00E+00 | 0 |
| Cs-137 | 2.48E-14 | 0 | 1.09E-10 | 0 | 0.00E+00 | 0 | 6.15E-13 | 0 | 2.61E-13 | 0 | 0.00E+00 | 0 | 7.28E-18 | 0 | 0.00E+00 | 0 |
| Sr-90 | 4.83E-17 | 0 | 4.13E-12 | 0 | 0.00E+00 | 0 | 8.34E-13 | 0 | 8.82E-14 | 0 | 0.00E+00 | 0 | 5.76E-18 | 0 | 0.00E+00 | 0 |
| Total | 2.52E-14 | 0 | 2.07E-10 | 0 | 0.00E+00 | 0 | 3.62E-11 | 0 | 3.74E-13 | 0 | 0.00E+00 | 0 | 4.37E-16 | 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 = 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 | 1.76E-03 | 1 | 3.83E-04 | 0 | 0.00E+00 | 0 | 3.51E-03 | 2 | 3.25E-05 | 0 | 0.00E+00 | 0 | 2.75E-03 | 1 | 8.43E-03 | 4 |
| Cs-137 | 1.68E-01 | 83 | 3.48E-08 | 0 | 0.00E+00 | 0 | 2.43E-03 | 1 | 3.97E-04 | 0 | 0.00E+00 | 0 | 4.76E-05 | 0 | 1.71E-01 | 84 |
| Sr-90 | 5.03E-04 | 0 | 5.90E-07 | 0 | 0.00E+00 | 0 | 2.31E-02 | 11 | 2.67E-04 | 0 | 0.00E+00 | 0 | 6.03E-05 | 0 | 2.39E-02 | 12 |
| Total | 1.70E-01 | 84 | 3.84E-04 | 0 | 0.00E+00 | 0 | 2.90E-02 | 14 | 6.96E-04 | 0 | 0.00E+00 | 0 | 2.85E-03 | 1 | 2.03E-01 | 100 |

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

Appendix H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 41

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR 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 | 1.61E-14 | 0 | 9.30E-11 | 0 | 0.00E+00 | 0 | 1.21E-09 | 0 | 2.48E-14 | 0 | 0.00E+00 | 0 | 2.03E-15 | 0 | 0.00E+00 | 0 |
| Cs-137 | 4.18E-14 | 0 | 9.42E-11 | 0 | 0.00E+00 | 0 | 5.43E-13 | 0 | 2.26E-13 | 0 | 0.00E+00 | 0 | 1.23E-17 | 0 | 0.00E+00 | 0 |
| Sr-90 | 4.71E-17 | 0 | 2.99E-12 | 0 | 0.00E+00 | 0 | 6.22E-13 | 0 | 6.39E-14 | 0 | 0.00E+00 | 0 | 5.62E-18 | 0 | 0.00E+00 | 0 |
| Total | 5.79E-14 | 0 | 1.90E-10 | 0 | 0.00E+00 | 0 | 1.21E-09 | 0 | 3.15E-13 | 0 | 0.00E+00 | 0 | 2.04E-15 | 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 = 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 | 1.74E-03 | 1 | 3.79E-04 | 0 | 0.00E+00 | 0 | 3.47E-03 | 2 | 3.21E-05 | 0 | 0.00E+00 | 0 | 2.72E-03 | 2 | 8.35E-03 | 5 |
| Cs-137 | 1.46E-01 | 84 | 3.02E-08 | 0 | 0.00E+00 | 0 | 2.11E-03 | 1 | 3.44E-04 | 0 | 0.00E+00 | 0 | 4.13E-05 | 0 | 1.48E-01 | 85 |
| Sr-90 | 3.65E-04 | 0 | 4.28E-07 | 0 | 0.00E+00 | 0 | 1.67E-02 | 10 | 1.94E-04 | 0 | 0.00E+00 | 0 | 4.37E-05 | 0 | 1.73E-02 | 10 |
| Total | 1.48E-01 | 85 | 3.80E-04 | 0 | 0.00E+00 | 0 | 2.23E-02 | 13 | 5.70E-04 | 0 | 0.00E+00 | 0 | 2.80E-03 | 2 | 1.74E-01 | 100 |

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

Appendix H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 42

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR 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 | 4.00E-10 | 0 | 1.05E-10 | 0 | 0.00E+00 | 0 | 9.03E-06 | 0 | 1.03E-13 | 0 | 0.00E+00 | 0 | 3.10E-11 | 0 | 0.00E+00 | 0 |
| Cs-137 | 6.56E-14 | 0 | 6.16E-11 | 0 | 0.00E+00 | 0 | 3.73E-13 | 0 | 1.48E-13 | 0 | 0.00E+00 | 0 | 1.93E-17 | 0 | 0.00E+00 | 0 |
| Sr-90 | 5.76E-09 | 0 | 1.14E-12 | 0 | 0.00E+00 | 0 | 2.44E-04 | 0 | 2.43E-14 | 0 | 0.00E+00 | 0 | 6.87E-10 | 0 | 0.00E+00 | 0 |
| Total | 6.16E-09 | 0 | 1.68E-10 | 0 | 0.00E+00 | 0 | 2.54E-04 | 0 | 2.75E-13 | 0 | 0.00E+00 | 0 | 7.18E-10 | 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 = 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 | 1.69E-03 | 2 | 3.68E-04 | 0 | 0.00E+00 | 0 | 3.37E-03 | 3 | 3.12E-05 | 0 | 0.00E+00 | 0 | 2.64E-03 | 2 | 8.11E-03 | 7 |
| Cs-137 | 9.52E-02 | 85 | 1.97E-08 | 0 | 0.00E+00 | 0 | 1.38E-03 | 1 | 2.25E-04 | 0 | 0.00E+00 | 0 | 2.70E-05 | 0 | 9.68E-02 | 87 |
| Sr-90 | 1.39E-04 | 0 | 1.63E-07 | 0 | 0.00E+00 | 0 | 6.37E-03 | 6 | 7.36E-05 | 0 | 0.00E+00 | 0 | 1.66E-05 | 0 | 6.84E-03 | 6 |
| Total | 9.70E-02 | 87 | 3.68E-04 | 0 | 0.00E+00 | 0 | 1.11E-02 | 10 | 3.30E-04 | 0 | 0.00E+00 | 0 | 2.68E-03 | 2 | 1.12E-01 | 100 |

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

Appendix H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 43

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR 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 | 1.75E-09 | 0 | 4.51E-08 | 0 | 0.00E+00 | 0 | 2.89E-05 | 0 | 2.40E-10 | 0 | 0.00E+00 | 0 | 1.36E-10 | 0 | 0.00E+00 | 0 |
| Cs-137 | 5.26E-14 | 0 | 2.12E-11 | 0 | 0.00E+00 | 0 | 1.43E-13 | 0 | 5.10E-14 | 0 | 0.00E+00 | 0 | 1.54E-17 | 0 | 0.00E+00 | 0 |
| Sr-90 | 5.24E-07 | 0 | 1.14E-06 | 0 | 0.00E+00 | 0 | 6.75E-03 | 14 | 2.41E-08 | 0 | 0.00E+00 | 0 | 6.25E-08 | 0 | 0.00E+00 | 0 |
| Total | 5.26E-07 | 0 | 1.18E-06 | 0 | 0.00E+00 | 0 | 6.78E-03 | 14 | 2.44E-08 | 0 | 0.00E+00 | 0 | 6.26E-08 | 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 = 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 | 1.57E-03 | 3 | 3.41E-04 | 1 | 0.00E+00 | 0 | 3.12E-03 | 6 | 2.89E-05 | 0 | 0.00E+00 | 0 | 2.45E-03 | 5 | 7.54E-03 | 16 |
| Cs-137 | 3.28E-02 | 68 | 6.80E-09 | 0 | 0.00E+00 | 0 | 4.76E-04 | 1 | 7.76E-05 | 0 | 0.00E+00 | 0 | 9.31E-06 | 0 | 3.34E-02 | 69 |
| Sr-90 | 1.24E-05 | 0 | 1.45E-08 | 0 | 0.00E+00 | 0 | 5.68E-04 | 1 | 6.57E-06 | 0 | 0.00E+00 | 0 | 1.48E-06 | 0 | 7.34E-03 | 15 |
| Total | 3.44E-02 | 71 | 3.41E-04 | 1 | 0.00E+00 | 0 | 4.17E-03 | 9 | 1.13E-04 | 0 | 0.00E+00 | 0 | 2.46E-03 | 5 | 4.83E-02 | 100 |

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

Appendix H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 44

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR 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 | 1.58E-09 | 0 | 5.09E-08 | 0 | 0.00E+00 | 0 | 2.59E-05 | 0 | 2.71E-10 | 0 | 0.00E+00 | 0 | 1.23E-10 | 0 | 0.00E+00 | 0 |
| Cs-137 | 9.96E-15 | 0 | 2.00E-12 | 0 | 0.00E+00 | 0 | 1.59E-14 | 0 | 4.79E-15 | 0 | 0.00E+00 | 0 | 2.92E-18 | 0 | 0.00E+00 | 0 |
| Sr-90 | 2.99E-09 | 0 | 4.71E-07 | 0 | 0.00E+00 | 0 | 3.49E-05 | 0 | 1.01E-08 | 0 | 0.00E+00 | 0 | 3.56E-10 | 0 | 0.00E+00 | 0 |
| Total | 4.57E-09 | 0 | 5.22E-07 | 0 | 0.00E+00 | 0 | 6.08E-05 | 1 | 1.03E-08 | 0 | 0.00E+00 | 0 | 4.79E-10 | 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 = 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 | 1.33E-03 | 14 | 2.88E-04 | 3 | 0.00E+00 | 0 | 2.64E-03 | 28 | 2.44E-05 | 0 | 0.00E+00 | 0 | 2.07E-03 | 22 | 6.37E-03 | 67 |
| Cs-137 | 3.09E-03 | 32 | 6.39E-10 | 0 | 0.00E+00 | 0 | 4.47E-05 | 0 | 7.29E-06 | 0 | 0.00E+00 | 0 | 8.75E-07 | 0 | 3.14E-03 | 33 |
| Sr-90 | 5.76E-08 | 0 | 6.76E-11 | 0 | 0.00E+00 | 0 | 2.64E-06 | 0 | 3.06E-08 | 0 | 0.00E+00 | 0 | 6.90E-09 | 0 | 3.82E-05 | 0 |
| Total | 4.41E-03 | 46 | 2.88E-04 | 3 | 0.00E+00 | 0 | 2.69E-03 | 28 | 3.17E-05 | 0 | 0.00E+00 | 0 | 2.07E-03 | 22 | 9.54E-03 | 100 |

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

Appendix H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 45

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR 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 | 1.07E-09 | 0 | 3.44E-08 | 0 | 0.00E+00 | 0 | 1.75E-05 | 0 | 1.83E-10 | 0 | 0.00E+00 | 0 | 8.28E-11 | 0 | 0.00E+00 | 0 |
| Cs-137 | 5.27E-17 | 0 | 6.07E-15 | 0 | 0.00E+00 | 0 | 5.92E-17 | 0 | 1.46E-17 | 0 | 0.00E+00 | 0 | 1.55E-20 | 0 | 0.00E+00 | 0 |
| Sr-90 | 5.77E-15 | 0 | 9.19E-13 | 0 | 0.00E+00 | 0 | 6.75E-11 | 0 | 1.96E-14 | 0 | 0.00E+00 | 0 | 6.88E-16 | 0 | 0.00E+00 | 0 |
| Total | 1.07E-09 | 0 | 3.44E-08 | 0 | 0.00E+00 | 0 | 1.75E-05 | 0 | 1.83E-10 | 0 | 0.00E+00 | 0 | 8.28E-11 | 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 = 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 | 8.77E-04 | 21 | 1.91E-04 | 5 | 0.00E+00 | 0 | 1.75E-03 | 41 | 1.62E-05 | 0 | 0.00E+00 | 0 | 1.37E-03 | 32 | 4.22E-03 | 100 |
| Cs-137 | 9.39E-06 | 0 | 1.94E-12 | 0 | 0.00E+00 | 0 | 1.36E-07 | 0 | 2.22E-08 | 0 | 0.00E+00 | 0 | 2.66E-09 | 0 | 9.55E-06 | 0 |
| Sr-90 | 1.11E-13 | 0 | 1.31E-16 | 0 | 0.00E+00 | 0 | 5.11E-12 | 0 | 5.91E-14 | 0 | 0.00E+00 | 0 | 1.33E-14 | 0 | 7.38E-11 | 0 |
| Total | 8.87E-04 | 21 | 1.91E-04 | 5 | 0.00E+00 | 0 | 1.75E-03 | 41 | 1.62E-05 | 0 | 0.00E+00 | 0 | 1.37E-03 | 32 | 4.23E-03 | 100 |

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

Appendix H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 46

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR 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 | 4.41E-10 | 0 | 1.42E-08 | 0 | 0.00E+00 | 0 | 7.23E-06 | 0 | 7.58E-11 | 0 | 0.00E+00 | 0 | 3.42E-11 | 0 | 0.00E+00 | 0 |
| Cs-137 | 2.36E-21 | 0 | 1.36E-20 | 0 | 0.00E+00 | 0 | 1.55E-20 | 0 | 3.27E-23 | 0 | 0.00E+00 | 0 | 6.93E-25 | 0 | 0.00E+00 | 0 |
| Sr-90 | 8.60E-28 | 0 | 1.37E-25 | 0 | 0.00E+00 | 0 | 1.01E-23 | 0 | 2.92E-27 | 0 | 0.00E+00 | 0 | 1.03E-28 | 0 | 0.00E+00 | 0 |
| Total | 4.41E-10 | 0 | 1.42E-08 | 0 | 0.00E+00 | 0 | 7.23E-06 | 0 | 7.58E-11 | 0 | 0.00E+00 | 0 | 3.42E-11 | 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 = 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 | 3.47E-04 | 21 | 7.56E-05 | 5 | 0.00E+00 | 0 | 6.91E-04 | 41 | 6.40E-06 | 0 | 0.00E+00 | 0 | 5.42E-04 | 32 | 1.67E-03 | 100 |
| Cs-137 | 2.11E-11 | 0 | 4.36E-18 | 0 | 0.00E+00 | 0 | 3.05E-13 | 0 | 4.97E-14 | 0 | 0.00E+00 | 0 | 5.97E-15 | 0 | 2.14E-11 | 0 |
| Sr-90 | 1.66E-26 | 0 | 1.95E-29 | 0 | 0.00E+00 | 0 | 7.61E-25 | 0 | 8.80E-27 | 0 | 0.00E+00 | 0 | 1.99E-27 | 0 | 1.10E-23 | 0 |
| Total | 3.47E-04 | 21 | 7.56E-05 | 5 | 0.00E+00 | 0 | 6.91E-04 | 41 | 6.40E-06 | 0 | 0.00E+00 | 0 | 5.42E-04 | 32 | 1.67E-03 | 100 |

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

Appendix H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 47

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR 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 | 2.774E-02 | 2.769E-02 | 2.760E-02 | 2.746E-02 | 2.718E-02 | 2.637E-02 | 2.445E-02 | 2.066E-02 | 1.367E-02 | 5.415E-03 |
| Am-241 | Np-237+D | 1.000E+00 | 6.804E-08 | 2.012E-07 | 4.437E-07 | 7.530E-07 | 1.219E-06 | 3.126E-05 | 9.645E-05 | 8.624E-05 | 5.818E-05 | 2.403E-05 |
| Am-241 | U-233 | 1.000E+00 | 1.183E-15 | 6.679E-15 | 3.114E-14 | 9.712E-14 | 3.107E-13 | 4.546E-12 | 8.306E-11 | 2.878E-10 | 6.227E-10 | 4.504E-10 |
| Am-241 | Th-229+D | 1.000E+00 | 1.586E-18 | 2.062E-17 | 2.215E-16 | 1.312E-15 | 8.397E-15 | 9.358E-14 | 8.547E-13 | 4.914E-12 | 2.070E-11 | 4.979E-11 |
| Am-241 | ΣDSR(j) | | 2.774E-02 | 2.769E-02 | 2.760E-02 | 2.746E-02 | 2.719E-02 | 2.640E-02 | 2.454E-02 | 2.074E-02 | 1.373E-02 | 5.439E-03 |
| Cs-137+D | Cs-137+D | 1.000E+00 | 4.404E-01 | 4.302E-01 | 4.103E-01 | 3.822E-01 | 3.316E-01 | 2.166E-01 | 7.474E-02 | 7.021E-03 | 2.137E-05 | 4.792E-11 |
| Sr-90+D | Sr-90+D | 1.000E+00 | 1.467E-01 | 1.391E-01 | 1.249E-01 | 1.063E-01 | 7.706E-02 | 3.040E-02 | 3.262E-02 | 1.696E-04 | 3.278E-10 | 4.884E-23 |

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 | 9.012E+02 | 9.027E+02 | 9.058E+02 | 9.104E+02 | 9.196E+02 | 9.468E+02 | 1.019E+03 | 1.205E+03 | 1.821E+03 | 4.597E+03 |
| Cs-137 | 5.676E+01 | 5.812E+01 | 6.093E+01 | 6.541E+01 | 7.539E+01 | 1.154E+02 | 3.345E+02 | 3.561E+03 | 1.170E+06 | 5.217E+11 |
| Sr-90 | 1.704E+02 | 1.797E+02 | 2.001E+02 | 2.351E+02 | 3.244E+02 | 8.225E+02 | 7.665E+02 | 1.474E+05 | 7.626E+10 | *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 | 3.070E-01 | 0 | 2.774E-02 | 9.012E+02 | 2.774E-02 | 9.012E+02 |
| Cs-137 | 4.470E-01 | 0 | 4.404E-01 | 5.676E+01 | 4.404E-01 | 5.676E+01 |
| Sr-90 | 2.250E-01 | 0 | 1.467E-01 | 1.704E+02 | 1.467E-01 | 1.704E+02 |

Appendix H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 48

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR 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 | 8.516E-03 | 8.502E-03 | 8.473E-03 | 8.430E-03 | 8.346E-03 | 8.096E-03 | 7.505E-03 | 6.342E-03 | 4.198E-03 | 1.662E-03 |
| Np-237 | Am-241 | 1.000E+00 | 2.089E-08 | 6.176E-08 | 1.362E-07 | 2.312E-07 | 3.742E-07 | 9.597E-06 | 2.961E-05 | 2.648E-05 | 1.786E-05 | 7.378E-06 |
| U-233 | Am-241 | 1.000E+00 | 3.633E-16 | 2.050E-15 | 9.560E-15 | 2.982E-14 | 9.540E-14 | 1.396E-12 | 2.550E-11 | 8.834E-11 | 1.912E-10 | 1.383E-10 |
| Th-229 | Am-241 | 1.000E+00 | 4.868E-19 | 6.332E-18 | 6.799E-17 | 4.026E-16 | 2.578E-15 | 2.873E-14 | 2.624E-13 | 1.509E-12 | 6.354E-12 | 1.529E-11 |
| Cs-137 | Cs-137 | 1.000E+00 | 1.969E-01 | 1.923E-01 | 1.834E-01 | 1.708E-01 | 1.482E-01 | 9.684E-02 | 3.341E-02 | 3.138E-03 | 9.553E-06 | 2.142E-11 |
| Sr-90 | Sr-90 | 1.000E+00 | 3.302E-02 | 3.130E-02 | 2.811E-02 | 2.393E-02 | 1.734E-02 | 6.839E-03 | 7.339E-03 | 3.816E-05 | 7.376E-11 | 1.099E-23 |

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 | 3.070E-01 | 3.065E-01 | 3.055E-01 | 3.039E-01 | 3.009E-01 | 2.919E-01 | 2.706E-01 | 2.286E-01 | 1.513E-01 | 5.992E-02 |
| Np-237 | Am-241 | 1.000E+00 | 0.000E+00 | 9.621E-08 | 2.709E-07 | 4.937E-07 | 8.265E-07 | 1.293E-06 | 1.409E-06 | 1.202E-06 | 7.957E-07 | 3.151E-07 |
| U-233 | Am-241 | 1.000E+00 | 0.000E+00 | 2.169E-13 | 1.836E-12 | 6.846E-12 | 2.407E-11 | 1.063E-10 | 3.374E-10 | 6.787E-10 | 8.584E-10 | 4.746E-10 |
| Th-229 | Am-241 | 1.000E+00 | 0.000E+00 | 7.212E-18 | 1.783E-16 | 1.340E-15 | 9.704E-15 | 1.162E-13 | 1.066E-12 | 6.014E-12 | 2.453E-11 | 5.703E-11 |
| Cs-137 | Cs-137 | 1.000E+00 | 4.470E-01 | 4.366E-01 | 4.164E-01 | 3.879E-01 | 3.366E-01 | 2.199E-01 | 7.585E-02 | 7.125E-03 | 2.169E-05 | 4.863E-11 |
| Sr-90 | Sr-90 | 1.000E+00 | 2.250E-01 | 2.132E-01 | 1.915E-01 | 1.630E-01 | 1.181E-01 | 4.493E-02 | 4.009E-03 | 1.866E-05 | 3.607E-11 | 5.373E-24 |

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

Appendix H20 – RESRAD-Offsite 3.1 Output for AREA 4.2 COLLECTOR AM

RESRAD-OFFSITE, Version 3.1 T½ Limit = 30 days 10/26/2016 16:18 Page 49

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

File : AREA 4.2 COLLECTOR AM.ROF

Run Time Information

ResOCalc.EXE execution began at 16:18 on 10/26/2016

ResOCalc.EXE execution ended at 16:18 on 10/26/2016

ResOCalc.EXE execution time 3.087 seconds

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