

Concent : RESRAD Default Parameters

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Part IV: Concentration of Radionuclides

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Concentration of radionuclides in different media

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Time= 1.000E+01 .....	8
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## Concentration of radionuclides in environmental media

at t = 0.000E+00 years

Radio- Nuclide	Contaminat- ed Zone	Surface Soil*	Air Par- ticulate	Well Water	Surface Water
	pCi/g	pCi/g	pCi/m**3	pCi/L	pCi/L
Ac-227	0.000E+00	0.000E+00	0.000E+00	1.490E-18	0.000E+00
Am-241	1.000E+00	0.000E+00	0.000E+00	9.283E-01	0.000E+00
Am-243	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
C-14	1.000E+00	0.000E+00	0.000E+00	1.600E+02	0.000E+00
Ce-144	1.000E+00	0.000E+00	0.000E+00	6.261E-01	0.000E+00
Cm-243	1.000E+00	0.000E+00	0.000E+00	4.368E-01	0.000E+00
Cm-244	1.000E+00	0.000E+00	0.000E+00	4.368E-01	0.000E+00
Co-58	1.000E+00	0.000E+00	0.000E+00	6.702E+00	0.000E+00
Co-60	1.000E+00	0.000E+00	0.000E+00	6.702E+00	0.000E+00
Cs-134	1.000E+00	0.000E+00	0.000E+00	1.579E+00	0.000E+00
Cs-137	1.000E+00	0.000E+00	0.000E+00	1.579E+00	0.000E+00
Eu-152	1.000E+00	0.000E+00	0.000E+00	2.637E+00	0.000E+00
Eu-154	1.000E+00	0.000E+00	0.000E+00	2.637E+00	0.000E+00
Eu-155	1.000E+00	0.000E+00	0.000E+00	2.637E+00	0.000E+00
Fe-55	1.000E+00	0.000E+00	0.000E+00	7.781E-01	0.000E+00
Gd-152	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
H-3	1.000E+00	0.000E+00	0.000E+00	7.246E+02	0.000E+00
Ni-59	1.000E+00	0.000E+00	0.000E+00	8.960E+00	0.000E+00
Ni-63	1.000E+00	0.000E+00	0.000E+00	8.960E+00	0.000E+00
Np-237	1.000E+00	0.000E+00	0.000E+00	4.316E+01	0.000E+00
Pa-231	0.000E+00	0.000E+00	0.000E+00	5.782E-18	0.000E+00
Pb-210	0.000E+00	0.000E+00	0.000E+00	4.091E-13	0.000E+00
Po-210	0.000E+00	0.000E+00	0.000E+00	1.473E-14	0.000E+00
Pu-238	1.000E+00	0.000E+00	0.000E+00	1.599E+00	0.000E+00
Pu-239	1.000E+00	0.000E+00	0.000E+00	1.599E+00	0.000E+00
Pu-240	1.000E+00	0.000E+00	0.000E+00	1.599E+00	0.000E+00
Pu-241	1.000E+00	0.000E+00	0.000E+00	1.599E+00	0.000E+00
Ra-226	0.000E+00	0.000E+00	0.000E+00	1.003E-15	0.000E+00
Ra-228	0.000E+00	0.000E+00	0.000E+00	1.028E-22	0.000E+00
Sb-125	1.000E+00	0.000E+00	0.000E+00	4.654E+01	0.000E+00
Sr-90	1.000E+00	0.000E+00	0.000E+00	3.638E+01	0.000E+00
Tc-99	1.000E+00	0.000E+00	0.000E+00	7.788E+02	0.000E+00
Te-125m	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Th-228	0.000E+00	0.000E+00	0.000E+00	1.809E-19	0.000E+00
Th-229	0.000E+00	0.000E+00	0.000E+00	1.724E-16	0.000E+00
Th-230	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Th-232	0.000E+00	0.000E+00	0.000E+00	1.325E-22	0.000E+00
U-233	0.000E+00	0.000E+00	0.000E+00	9.436E-17	0.000E+00
U-234	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
U-235	0.000E+00	0.000E+00	0.000E+00	7.706E-16	0.000E+00
U-236	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

\*The Surface Soil is the top layer of soil within the user specified mixing zone/depth.

Concentrations in the media occurring in pathways that are suppressed are calculated using the current input parameters, i.e. using parameters appearing in the input screen when the pathways are active.

Concentration of H-3 in soil moisture = 0.000E+00 pCi/ml

Concentration of gaseous H-3 in air = 0.000E+00 pCi/m\*\*3

Concentration of gaseous C-14 in air = 0.000E+00 pCi/m\*\*3

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Concentration of radionuclides in foodstuff media  
at t = 0.000E+00 years\*

Radio- Nuclide	Drinking Water	Nonleafy Vegetable	Leafy Vegetable	Fodder Meat	Fodder Milk	Meat	Milk	Fish	Crustacea
	pCi/L	pCi/kg	pCi/kg	pCi/kg	pCi/kg	pCi/kg	pCi/L	pCi/kg	pCi/kg
Ac-227	1.490E-18	3.616E-19	2.963E-18	2.021E-18	2.021E-18	2.603E-21	4.343E-21	0.000E+00	0.000E+00
Am-241	9.283E-01	2.252E-01	1.846E+00	1.259E+00	1.259E+00	4.654E-03	4.410E-04	0.000E+00	0.000E+00
Am-243	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
C-14	1.600E+02	4.330E+02	4.888E+01	4.274E+01	3.600E+01	6.906E+02	1.320E+02	0.000E+00	0.000E+00
Ce-144	6.261E-01	1.520E-01	1.245E+00	8.490E-01	8.490E-01	2.073E-03	4.415E-03	0.000E+00	0.000E+00
Cm-243	4.368E-01	1.060E-01	8.686E-01	5.923E-01	5.923E-01	1.557E-03	2.419E-04	0.000E+00	0.000E+00
Cm-244	4.368E-01	1.060E-01	8.686E-01	5.923E-01	5.923E-01	1.557E-03	2.419E-04	0.000E+00	0.000E+00
Co-58	6.702E+00	1.756E+00	1.336E+01	9.131E+00	9.131E+00	3.508E+01	3.153E+00	0.000E+00	0.000E+00
Co-60	6.702E+00	1.756E+00	1.336E+01	9.131E+00	9.131E+00	3.508E+01	3.153E+00	0.000E+00	0.000E+00
Cs-134	1.579E+00	3.994E-01	3.144E+00	2.147E+00	2.147E+00	9.059E+00	3.157E+00	0.000E+00	0.000E+00
Cs-137	1.579E+00	3.994E-01	3.144E+00	2.147E+00	2.147E+00	9.059E+00	3.157E+00	0.000E+00	0.000E+00
Eu-152	2.637E+00	6.405E-01	5.244E+00	3.576E+00	3.576E+00	9.260E-01	4.304E-02	0.000E+00	0.000E+00
Eu-154	2.637E+00	6.405E-01	5.244E+00	3.576E+00	3.576E+00	9.260E-01	4.304E-02	0.000E+00	0.000E+00
Eu-155	2.637E+00	6.405E-01	5.244E+00	3.576E+00	3.576E+00	9.260E-01	4.304E-02	0.000E+00	0.000E+00
Fe-55	7.781E-01	1.887E-01	1.547E+00	1.055E+00	1.055E+00	2.678E+00	5.419E-02	0.000E+00	0.000E+00
Gd-152	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
H-3	7.246E+02	3.376E+02	1.715E+02	1.150E+02	1.150E+02	3.291E+02	4.030E+02	0.000E+00	0.000E+00
Ni-59	8.960E+00	2.282E+00	1.784E+01	1.218E+01	1.218E+01	7.256E+00	4.172E+01	0.000E+00	0.000E+00
Ni-63	8.960E+00	2.282E+00	1.784E+01	1.218E+01	1.218E+01	7.256E+00	4.172E+01	0.000E+00	0.000E+00
Np-237	4.316E+01	1.067E+01	8.588E+01	5.859E+01	5.859E+01	5.997E+00	1.013E-01	0.000E+00	0.000E+00
Pa-231	5.782E-18	1.409E-18	1.150E-17	7.842E-18	7.842E-18	2.526E-18	4.213E-21	0.000E+00	0.000E+00
Pb-210	4.091E-13	9.967E-14	8.135E-13	5.548E-13	5.548E-13	2.859E-14	1.788E-14	0.000E+00	0.000E+00
Po-210	1.473E-14	3.570E-15	2.928E-14	1.997E-14	1.997E-14	6.431E-15	7.295E-16	0.000E+00	0.000E+00
Pu-238	1.599E+00	3.880E-01	3.181E+00	2.169E+00	2.169E+00	1.593E-02	3.239E-04	0.000E+00	0.000E+00
Pu-239	1.599E+00	3.880E-01	3.181E+00	2.169E+00	2.169E+00	1.593E-02	3.239E-04	0.000E+00	0.000E+00
Pu-240	1.599E+00	3.880E-01	3.181E+00	2.169E+00	2.169E+00	1.593E-02	3.239E-04	0.000E+00	0.000E+00
Pu-241	1.599E+00	3.880E-01	3.181E+00	2.169E+00	2.169E+00	1.593E-02	3.239E-04	0.000E+00	0.000E+00
Ra-226	1.003E-15	2.484E-16	1.995E-15	1.361E-15	1.361E-15	8.763E-17	1.462E-16	0.000E+00	0.000E+00
Ra-228	1.028E-22	2.546E-23	2.045E-22	1.395E-22	1.395E-22	8.981E-24	1.499E-23	0.000E+00	0.000E+00
Sb-125	4.654E+01	1.140E+01	9.257E+01	6.314E+01	6.314E+01	7.522E+00	7.597E-01	0.000E+00	0.000E+00
Sr-90	3.638E+01	1.171E+01	7.301E+01	5.029E+01	5.029E+01	4.197E+01	1.480E+01	0.000E+00	0.000E+00
Tc-99	7.788E+02	1.120E+03	1.767E+03	1.374E+03	1.374E+03	1.218E+01	2.123E+02	0.000E+00	0.000E+00
Te-125m	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Th-228	1.809E-19	4.385E-20	3.597E-19	2.452E-19	2.452E-19	1.580E-21	1.318E-22	0.000E+00	0.000E+00
Th-229	1.724E-16	4.180E-17	3.428E-16	2.338E-16	2.338E-16	1.506E-18	1.256E-19	0.000E+00	0.000E+00
Th-230	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Th-232	1.325E-22	3.212E-23	2.634E-22	1.796E-22	1.796E-22	1.157E-24	9.651E-26	0.000E+00	0.000E+00
U-233	9.436E-17	2.290E-17	1.876E-16	1.279E-16	1.279E-16	2.802E-18	8.250E-18	0.000E+00	0.000E+00
U-234	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
U-235	7.706E-16	1.870E-16	1.532E-15	1.045E-15	1.045E-15	2.289E-17	6.737E-17	0.000E+00	0.000E+00
U-236	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

\*Concentrations are at consumption time and include radioactive decay and ingrowth during storage time.

For livestock fodder, consumption time is t minus meat or milk storage time.

Concentrations in the media occurring in pathways that are suppressed are calculated using the current input parameters, i.e. using parameters appearing in the input screen when the pathways are active.

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Concentration of radionuclides in environmental media  
at t = 1.000E+00 years

Radio- Nuclide	Contaminat- ed Zone	Surface Soil*	Air Par- ticulate	Well Water	Surface Water
	pCi/g	pCi/g	pCi/m**3	pCi/L	pCi/L
Ac-227	1.096E-16	0.000E+00	0.000E+00	2.236E-16	1.305E-17
Am-241	9.996E-01	0.000E+00	0.000E+00	9.285E-01	3.107E-05
Am-243	2.227E-07	0.000E+00	0.000E+00	5.566E-08	6.878E-13
C-14	9.432E-01	0.000E+00	0.000E+00	1.663E+02	8.965E-01
Ce-144	4.104E-01	0.000E+00	0.000E+00	2.570E-01	5.797E-06
Cm-243	9.758E-01	0.000E+00	0.000E+00	4.264E-01	6.710E-06
Cm-244	9.623E-01	0.000E+00	0.000E+00	4.205E-01	6.617E-06
Co-58	2.792E-02	0.000E+00	0.000E+00	1.879E-01	4.525E-05
Co-60	8.746E-01	0.000E+00	0.000E+00	5.886E+00	1.417E-03
Cs-134	7.141E-01	0.000E+00	0.000E+00	1.129E+00	6.420E-05
Cs-137	9.766E-01	0.000E+00	0.000E+00	1.544E+00	8.779E-05
Eu-152	9.484E-01	0.000E+00	0.000E+00	2.505E+00	2.378E-04
Eu-154	9.234E-01	0.000E+00	0.000E+00	2.439E+00	2.315E-04
Eu-155	8.687E-01	0.000E+00	0.000E+00	2.295E+00	2.178E-04
Fe-55	7.734E-01	0.000E+00	0.000E+00	6.020E-01	1.687E-05
Gd-152	1.745E-15	0.000E+00	0.000E+00	5.272E-16	2.767E-20
H-3	7.259E-01	0.000E+00	0.000E+00	7.944E+02	1.572E+01
Ni-59	9.967E-01	0.000E+00	0.000E+00	8.980E+00	2.888E-03
Ni-63	9.896E-01	0.000E+00	0.000E+00	8.915E+00	2.867E-03
Np-237	9.844E-01	0.000E+00	0.000E+00	4.363E+01	6.661E-02
Pa-231	1.041E-14	0.000E+00	0.000E+00	6.184E-15	2.879E-17
Pb-210	1.420E-17	0.000E+00	0.000E+00	7.652E-13	2.800E-16
Po-210	3.951E-18	0.000E+00	0.000E+00	7.934E-13	6.046E-16
Pu-238	9.916E-01	0.000E+00	0.000E+00	1.588E+00	9.143E-05
Pu-239	9.994E-01	0.000E+00	0.000E+00	1.600E+00	9.216E-05
Pu-240	9.994E-01	0.000E+00	0.000E+00	1.600E+00	9.216E-05
Pu-241	9.524E-01	0.000E+00	0.000E+00	1.525E+00	8.783E-05
Ra-226	1.838E-15	0.000E+00	0.000E+00	2.616E-14	1.907E-17
Ra-228	2.847E-20	0.000E+00	0.000E+00	1.983E-22	3.243E-28
Sb-125	7.655E-01	0.000E+00	0.000E+00	3.665E+01	6.025E-02
Sr-90	9.636E-01	0.000E+00	0.000E+00	3.585E+01	4.626E-02
Tc-99	7.528E-01	0.000E+00	0.000E+00	9.111E+02	1.903E+01
Te-125m	1.827E-01	0.000E+00	0.000E+00	1.217E+00	1.617E-03
Th-228	2.416E-21	0.000E+00	0.000E+00	3.327E-19	1.946E-24
Th-229	2.053E-10	0.000E+00	0.000E+00	1.534E-10	4.733E-12
Th-230	1.272E-11	0.000E+00	0.000E+00	4.486E-12	2.646E-16
Th-232	7.298E-19	0.000E+00	0.000E+00	5.626E-22	6.192E-27
U-233	4.337E-06	0.000E+00	0.000E+00	9.968E-06	8.078E-09
U-234	2.822E-06	0.000E+00	0.000E+00	6.403E-06	4.457E-10
U-235	9.842E-10	0.000E+00	0.000E+00	2.233E-09	1.554E-13
U-236	2.958E-08	0.000E+00	0.000E+00	6.711E-08	4.671E-12

\*The Surface Soil is the top layer of soil within the user specified mixing zone/depth.

Concentrations in the media occurring in pathways that are suppressed are calculated using the current input parameters, i.e. using parameters appearing in the input screen when the pathways are active.

Concentration of H-3 in soil moisture = 0.000E+00 pCi/ml

Concentration of gaseous H-3 in air = 0.000E+00 pCi/m\*\*3

Concentration of gaseous C-14 in air = 0.000E+00 pCi/m\*\*3

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## Concentration of radionuclides in foodstuff media

at t = 1.000E+00 years\*

Radio- Nuclide	Drinking Water	Nonleafy Vegetable	Leafy Vegetable	Fodder Meat	Fodder Milk	Meat	Milk	Fish	Crustacea
	pCi/L	pCi/kg	pCi/kg	pCi/kg	pCi/kg	pCi/kg	pCi/L	pCi/kg	pCi/kg
Ac-227	2.246E-16	5.248E-17	4.485E-16	1.734E-15	2.656E-16	1.126E-17	6.068E-19	1.744E-16	1.162E-14
Am-241	9.285E-01	2.252E-01	1.846E+00	1.259E+00	1.259E+00	4.656E-03	4.411E-04	9.141E-04	3.047E-02
Am-243	5.577E-08	1.391E-08	1.111E-07	7.842E-08	8.230E-08	2.940E-10	2.798E-11	2.072E-11	6.906E-10
C-14	1.663E+02	4.491E+02	5.077E+01	4.411E+01	3.722E+01	7.155E+02	1.370E+02	4.399E+04	8.006E+03
Ce-144	2.570E-01	6.242E-02	5.111E-01	3.659E-01	3.494E-01	8.508E-04	1.813E-03	1.705E-04	5.685E-03
Cm-243	4.264E-01	1.034E-01	8.479E-01	5.789E-01	5.782E-01	1.519E-03	2.361E-04	1.975E-04	6.582E-03
Cm-244	4.205E-01	1.020E-01	8.361E-01	5.713E-01	5.702E-01	1.498E-03	2.328E-04	1.947E-04	6.491E-03
Co-58	1.880E-01	4.930E-02	3.749E-01	3.113E-01	2.585E-01	9.833E-01	8.845E-02	1.333E-02	8.885E-03
Co-60	5.886E+00	1.542E+00	1.173E+01	8.075E+00	8.020E+00	3.080E+01	2.769E+00	4.171E-01	2.780E-01
Cs-134	1.129E+00	2.855E-01	2.247E+00	1.563E+00	1.536E+00	6.475E+00	2.257E+00	1.259E-01	6.296E-03
Cs-137	1.544E+00	3.904E-01	3.074E+00	2.101E+00	2.099E+00	8.855E+00	3.086E+00	1.722E-01	8.611E-03
Eu-152	2.505E+00	6.084E-01	4.982E+00	3.406E+00	3.397E+00	8.796E-01	4.088E-02	1.166E-02	2.332E-01
Eu-154	2.439E+00	5.924E-01	4.850E+00	3.321E+00	3.308E+00	8.563E-01	3.980E-02	1.135E-02	2.271E-01
Eu-155	2.295E+00	5.573E-01	4.563E+00	3.135E+00	3.112E+00	8.057E-01	3.745E-02	1.068E-02	2.136E-01
Fe-55	6.020E-01	1.460E-01	1.197E+00	8.278E-01	8.168E-01	2.072E+00	4.193E-02	3.310E-03	5.296E-02
Gd-152	5.381E-16	1.676E-16	1.092E-15	1.360E-15	1.394E-15	2.117E-16	2.607E-18	1.067E-18	3.466E-17
H-3	7.942E+02	3.683E+02	1.879E+02	1.236E+02	1.241E+02	3.579E+02	4.406E+02	1.545E+01	1.545E+01
Ni-59	8.980E+00	2.286E+00	1.788E+01	1.221E+01	1.221E+01	7.270E+00	4.180E+01	2.833E-01	2.833E-01
Ni-63	8.915E+00	2.270E+00	1.775E+01	1.212E+01	1.212E+01	7.218E+00	4.150E+01	2.812E-01	2.812E-01
Np-237	4.363E+01	1.078E+01	8.679E+01	5.911E+01	5.914E+01	6.055E+00	1.023E-01	1.960E+00	2.614E+01
Pa-231	6.567E-15	2.776E-15	1.382E-14	2.355E-14	2.046E-14	5.871E-15	1.954E-17	2.572E-16	2.826E-15
Pb-210	7.713E-13	2.112E-13	1.546E-12	1.133E-12	1.479E-12	6.177E-14	4.203E-14	7.189E-14	2.396E-14
Po-210	8.067E-13	2.441E-13	1.631E-12	1.260E-12	1.934E-12	4.201E-13	5.821E-14	5.260E-14	1.003E-11
Pu-238	1.588E+00	3.851E-01	3.157E+00	2.153E+00	2.152E+00	1.581E-02	3.215E-04	2.690E-03	8.968E-03
Pu-239	1.600E+00	3.881E-01	3.182E+00	2.169E+00	2.169E+00	1.593E-02	3.241E-04	2.712E-03	9.039E-03
Pu-240	1.600E+00	3.881E-01	3.182E+00	2.169E+00	2.169E+00	1.593E-02	3.241E-04	2.712E-03	9.039E-03
Pu-241	1.525E+00	3.699E-01	3.032E+00	2.073E+00	2.068E+00	1.518E-02	3.088E-04	2.584E-03	8.614E-03
Ra-226	2.662E-14	8.348E-15	5.388E-14	4.319E-14	6.767E-14	3.069E-15	5.902E-15	8.045E-16	4.022E-15
Ra-228	1.871E-22	8.701E-23	3.560E-22	1.568E-22	3.974E-21	4.228E-24	2.617E-22	6.558E-26	3.761E-25
Sb-125	3.665E+01	8.974E+00	7.290E+01	5.031E+01	4.969E+01	5.917E+00	5.978E-01	5.910E+00	5.910E-01
Sr-90	3.584E+01	1.153E+01	7.193E+01	4.954E+01	4.950E+01	4.131E+01	1.457E+01	2.723E+00	4.538E+00
Tc-99	9.108E+02	1.304E+03	2.066E+03	1.570E+03	1.581E+03	1.404E+01	2.457E+02	3.742E+02	9.354E+01
Te-125m	1.303E+00	6.753E-01	2.782E+00	5.919E+00	5.852E+00	1.539E+00	2.230E-01	6.918E-01	1.202E-01
Th-228	3.108E-19	1.256E-20	5.746E-19	2.587E-19	2.152E-19	6.875E-22	1.549E-22	1.790E-22	8.951E-22
Th-229	1.498E-10	3.081E-11	2.908E-10	4.794E-10	5.255E-10	8.347E-12	7.412E-13	2.401E-10	1.202E-09
Th-230	4.625E-12	1.576E-12	9.471E-12	1.266E-11	1.367E-11	1.433E-13	1.916E-14	2.460E-14	1.237E-13
Th-232	9.578E-21	3.216E-20	3.691E-20	2.749E-22	5.180E-19	9.692E-25	9.394E-22	4.370E-23	2.598E-22
U-233	1.046E-05	4.253E-06	2.179E-05	4.362E-05	4.434E-05	2.022E-06	2.059E-06	2.420E-07	2.657E-06
U-234	6.398E-06	1.535E-06	1.271E-05	7.887E-06	8.337E-06	1.792E-07	5.459E-07	4.436E-09	2.623E-08
U-235	2.232E-09	5.353E-10	4.434E-09	2.749E-09	2.907E-09	6.247E-11	1.904E-10	1.547E-12	9.146E-12
U-236	6.706E-08	1.609E-08	1.333E-07	8.265E-08	8.739E-08	1.878E-09	5.722E-09	4.649E-11	2.749E-10

\*Concentrations are at consumption time and include radioactive decay and ingrowth during storage time.

For livestock fodder, consumption time is t minus meat or milk storage time.

Concentrations in the media occurring in pathways that are suppressed are calculated using the current input parameters, i.e. using parameters appearing in the input screen when the pathways are active.

Concent : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\EMBEDDED PIPE DSR\FCS EMBEDDED PIPE DSR.RAD

Concentration of radionuclides in environmental media  
at t = 3.000E+00 years

Radio- Nuclide	Contaminat- ed Zone	Surface Soil*	Air Par- ticulate	Well Water	Surface Water
	pCi/g	pCi/g	pCi/m**3	pCi/L	pCi/L
Ac-227	2.911E-15	0.000E+00	0.000E+00	8.847E-16	5.167E-17
Am-241	9.987E-01	0.000E+00	0.000E+00	9.287E-01	9.323E-05
Am-243	6.518E-07	0.000E+00	0.000E+00	1.630E-07	6.028E-12
C-14	8.391E-01	0.000E+00	0.000E+00	1.777E+02	2.539E+00
Ce-144	6.910E-02	0.000E+00	0.000E+00	4.331E-02	2.929E-06
Cm-243	9.292E-01	0.000E+00	0.000E+00	4.062E-01	1.917E-05
Cm-244	8.911E-01	0.000E+00	0.000E+00	3.896E-01	1.839E-05
Co-58	2.177E-05	0.000E+00	0.000E+00	1.477E-04	1.061E-07
Co-60	6.691E-01	0.000E+00	0.000E+00	4.540E+00	3.261E-03
Cs-134	3.642E-01	0.000E+00	0.000E+00	5.768E-01	9.827E-05
Cs-137	9.314E-01	0.000E+00	0.000E+00	1.475E+00	2.513E-04
Eu-152	8.531E-01	0.000E+00	0.000E+00	2.261E+00	6.423E-04
Eu-154	7.873E-01	0.000E+00	0.000E+00	2.086E+00	5.927E-04
Eu-155	6.557E-01	0.000E+00	0.000E+00	1.737E+00	4.936E-04
Fe-55	4.625E-01	0.000E+00	0.000E+00	3.604E-01	3.029E-05
Gd-152	4.970E-15	0.000E+00	0.000E+00	1.504E-15	2.332E-19
H-3	3.825E-01	0.000E+00	0.000E+00	8.427E+02	3.312E+01
Ni-59	9.902E-01	0.000E+00	0.000E+00	9.020E+00	8.636E-03
Ni-63	9.690E-01	0.000E+00	0.000E+00	8.827E+00	8.451E-03
Np-237	9.539E-01	0.000E+00	0.000E+00	4.453E+01	1.967E-01
Pa-231	9.361E-14	0.000E+00	0.000E+00	6.518E-14	1.199E-16
Pb-210	1.131E-15	0.000E+00	0.000E+00	1.160E-14	6.794E-16
Po-210	6.244E-16	0.000E+00	0.000E+00	2.546E-14	1.491E-15
Pu-238	9.749E-01	0.000E+00	0.000E+00	1.564E+00	2.698E-04
Pu-239	9.982E-01	0.000E+00	0.000E+00	1.601E+00	2.763E-04
Pu-240	9.982E-01	0.000E+00	0.000E+00	1.601E+00	2.763E-04
Pu-241	8.640E-01	0.000E+00	0.000E+00	1.386E+00	2.392E-04
Ra-226	4.938E-14	0.000E+00	0.000E+00	7.791E-16	4.563E-17
Ra-228	7.246E-19	0.000E+00	0.000E+00	6.102E-19	3.573E-20
Sb-125	4.486E-01	0.000E+00	0.000E+00	2.272E+01	1.077E-01
Sr-90	8.948E-01	0.000E+00	0.000E+00	3.478E+01	1.306E-01
Tc-99	4.266E-01	0.000E+00	0.000E+00	1.031E+03	4.094E+01
Te-125m	1.089E-01	0.000E+00	0.000E+00	7.669E-01	3.397E-03
Th-228	1.633E-19	0.000E+00	0.000E+00	2.921E-18	1.584E-19
Th-229	1.828E-09	0.000E+00	0.000E+00	8.672E-10	1.253E-11
Th-230	1.138E-10	0.000E+00	0.000E+00	4.078E-11	6.200E-15
Th-232	6.562E-18	0.000E+00	0.000E+00	4.567E-18	1.586E-19
U-233	1.280E-05	0.000E+00	0.000E+00	3.024E-05	7.194E-08
U-234	8.387E-06	0.000E+00	0.000E+00	1.908E-05	3.979E-09
U-235	2.948E-09	0.000E+00	0.000E+00	6.706E-09	1.398E-12
U-236	8.862E-08	0.000E+00	0.000E+00	2.016E-07	4.201E-11

\*The Surface Soil is the top layer of soil within the user specified mixing zone/depth.

Concentrations in the media occurring in pathways that are suppressed are calculated using the current input parameters, i.e. using parameters appearing in the input screen when the pathways are active.

Concentration of H-3 in soil moisture = 0.000E+00 pCi/ml

Concentration of gaseous H-3 in air = 0.000E+00 pCi/m\*\*3

Concentration of gaseous C-14 in air = 0.000E+00 pCi/m\*\*3

Concent : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\EMBEDDED PIPE DSR\FCS EMBEDDED PIPE DSR.RAD

Concentration of radionuclides in foodstuff media  
at t = 3.000E+00 years\*

Radio- Nuclide	Drinking Water	Nonleafy Vegetable	Leafy Vegetable	Fodder Meat	Fodder Milk	Meat	Milk	Fish	Crustacea
	pCi/L	pCi/kg	pCi/kg	pCi/kg	pCi/kg	pCi/kg	pCi/L	pCi/kg	pCi/kg
Ac-227	8.702E-16	1.696E-16	1.702E-15	1.273E-15	1.131E-15	5.189E-17	2.455E-18	6.540E-16	4.357E-14
Am-241	9.287E-01	2.253E-01	1.847E+00	1.259E+00	1.259E+00	4.657E-03	4.411E-04	2.779E-03	9.263E-02
Am-243	1.631E-07	3.993E-08	3.246E-07	2.238E-07	2.275E-07	8.315E-10	7.890E-11	1.811E-10	6.036E-09
C-14	1.776E+02	4.800E+02	5.425E+01	4.718E+01	3.980E+01	7.648E+02	1.464E+02	1.262E+05	2.297E+04
Ce-144	4.331E-02	1.052E-02	8.613E-02	6.166E-02	5.887E-02	1.434E-04	3.055E-04	8.732E-05	2.911E-03
Cm-243	4.062E-01	9.854E-02	8.078E-01	5.515E-01	5.508E-01	1.448E-03	2.249E-04	5.715E-04	1.905E-02
Cm-244	3.896E-01	9.450E-02	7.747E-01	5.293E-01	5.283E-01	1.388E-03	2.157E-04	5.481E-04	1.827E-02
Co-58	1.478E-04	3.875E-05	2.947E-04	2.447E-04	2.032E-04	7.730E-04	6.953E-05	3.168E-05	2.112E-05
Co-60	4.540E+00	1.189E+00	9.048E+00	6.228E+00	6.186E+00	2.376E+01	2.136E+00	9.720E-01	6.480E-01
Cs-134	5.768E-01	1.459E-01	1.148E+00	7.985E-01	7.847E-01	3.308E+00	1.153E+00	1.953E-01	9.764E-03
Cs-137	1.475E+00	3.731E-01	2.937E+00	2.008E+00	2.005E+00	8.462E+00	2.949E+00	4.995E-01	2.497E-02
Eu-152	2.261E+00	5.491E-01	4.495E+00	3.074E+00	3.066E+00	7.937E-01	3.689E-02	3.191E-02	6.382E-01
Eu-154	2.086E+00	5.067E-01	4.149E+00	2.841E+00	2.829E+00	7.325E-01	3.404E-02	2.945E-02	5.889E-01
Eu-155	1.737E+00	4.220E-01	3.455E+00	2.374E+00	2.357E+00	6.100E-01	2.835E-02	2.452E-02	4.905E-01
Fe-55	3.604E-01	8.742E-02	7.167E-01	4.956E-01	4.890E-01	1.240E+00	2.510E-02	6.018E-03	9.629E-02
Gd-152	1.514E-15	4.007E-16	3.030E-15	2.621E-15	2.652E-15	3.707E-16	5.349E-18	6.856E-18	2.523E-16
H-3	8.426E+02	3.917E+02	1.994E+02	1.327E+02	1.327E+02	3.812E+02	4.680E+02	3.298E+01	3.298E+01
Ni-59	9.020E+00	2.297E+00	1.796E+01	1.226E+01	1.226E+01	7.303E+00	4.199E+01	8.581E-01	8.581E-01
Ni-63	8.827E+00	2.247E+00	1.758E+01	1.200E+01	1.200E+01	7.146E+00	4.109E+01	8.397E-01	8.397E-01
Np-237	4.453E+01	1.101E+01	8.859E+01	6.034E+01	6.037E+01	6.181E+00	1.045E-01	5.865E+00	7.820E+01
Pa-231	6.546E-14	1.680E-14	1.307E-13	9.758E-14	9.754E-14	2.919E-14	8.411E-17	1.029E-15	1.129E-14
Pb-210	5.601E-14	1.385E-13	1.993E-13	1.387E-12	4.158E-13	5.608E-14	9.689E-15	1.048E-13	3.495E-14
Po-210	6.606E-14	1.243E-13	2.117E-13	1.755E-12	1.492E-13	3.418E-13	5.401E-15	7.769E-14	1.482E-11
Pu-238	1.564E+00	3.793E-01	3.110E+00	2.121E+00	2.120E+00	1.557E-02	3.167E-04	8.044E-03	2.681E-02
Pu-239	1.601E+00	3.884E-01	3.184E+00	2.171E+00	2.171E+00	1.594E-02	3.243E-04	8.236E-03	2.745E-02
Pu-240	1.601E+00	3.884E-01	3.184E+00	2.171E+00	2.171E+00	1.594E-02	3.243E-04	8.236E-03	2.745E-02
Pu-241	1.386E+00	3.362E-01	2.756E+00	1.884E+00	1.879E+00	1.380E-02	2.807E-04	7.129E-03	2.376E-02
Ra-226	2.476E-15	5.256E-15	8.286E-15	6.829E-14	6.047E-15	2.956E-15	6.292E-16	1.092E-15	5.458E-15
Ra-228	6.144E-19	1.634E-19	1.231E-18	8.003E-19	7.669E-19	5.370E-20	8.548E-20	1.874E-18	9.372E-18
Sb-125	2.272E+01	5.562E+00	4.518E+01	3.118E+01	3.080E+01	3.667E+00	3.705E-01	1.071E+01	1.071E+00
Sr-90	3.478E+01	1.119E+01	6.979E+01	4.807E+01	4.803E+01	4.009E+01	1.414E+01	7.787E+00	1.298E+01
Tc-99	1.032E+03	1.500E+03	2.344E+03	1.894E+03	1.886E+03	1.659E+01	2.881E+02	8.229E+02	2.057E+02
Te-125m	8.198E-01	4.226E-01	1.749E+00	3.690E+00	3.645E+00	9.618E-01	1.391E-01	1.444E+00	2.535E-01
Th-228	2.938E-18	7.480E-19	5.877E-18	3.205E-18	2.949E-18	2.480E-20	1.902E-21	1.622E-17	8.111E-17
Th-229	8.767E-10	2.460E-10	1.762E-09	2.027E-09	1.835E-09	1.991E-11	1.840E-12	1.365E-09	6.828E-09
Th-230	4.118E-11	1.132E-11	8.267E-11	7.682E-11	7.925E-11	6.826E-13	7.814E-14	5.939E-13	2.976E-12
Th-232	4.611E-18	1.242E-18	9.257E-18	6.817E-18	6.574E-18	5.788E-20	5.827E-21	1.634E-17	8.171E-17
U-233	3.074E-05	9.209E-06	6.213E-05	7.173E-05	7.246E-05	2.660E-06	3.855E-06	1.202E-06	1.082E-05
U-234	1.907E-05	4.611E-06	3.792E-05	2.508E-05	2.553E-05	5.557E-07	1.654E-06	3.973E-08	2.372E-07
U-235	6.704E-09	1.621E-09	1.333E-08	8.814E-09	8.972E-09	1.953E-10	5.814E-10	1.396E-11	8.332E-11
U-236	2.015E-07	4.871E-08	4.006E-07	2.649E-07	2.697E-07	5.870E-09	1.748E-08	4.194E-10	2.504E-09

\*Concentrations are at consumption time and include radioactive decay and ingrowth during storage time.

For livestock fodder, consumption time is t minus meat or milk storage time.

Concentrations in the media occurring in pathways that are suppressed are calculated using the current input parameters, i.e. using parameters appearing in the input screen when the pathways are active.

Concent : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\EMBEDDED PIPE DSR\FCS EMBEDDED PIPE DSR.RAD

Concentration of radionuclides in environmental media  
at t = 1.000E+01 years

Radio- Nuclide	Contaminat- ted Zone	Surface Soil*	Air Par- ticulate	Well Water	Surface Water
	pCi/g	pCi/g	pCi/m**3	pCi/L	pCi/L
Ac-227	1.018E-13	0.000E+00	0.000E+00	3.451E-14	2.020E-16
Am-241	9.933E-01	0.000E+00	0.000E+00	9.274E-01	3.103E-04
Am-243	1.998E-06	0.000E+00	0.000E+00	5.003E-07	6.113E-11
C-14	5.572E-01	0.000E+00	0.000E+00	2.084E+02	6.984E+00
Ce-144	1.354E-04	0.000E+00	0.000E+00	8.509E-05	1.915E-08
Cm-243	7.829E-01	0.000E+00	0.000E+00	3.429E-01	5.387E-05
Cm-244	6.809E-01	0.000E+00	0.000E+00	2.982E-01	4.686E-05
Co-58	2.881E-16	0.000E+00	0.000E+00	2.012E-15	4.721E-18
Co-60	2.620E-01	0.000E+00	0.000E+00	1.829E+00	4.293E-03
Cs-134	3.448E-02	0.000E+00	0.000E+00	5.499E-02	3.108E-05
Cs-137	7.891E-01	0.000E+00	0.000E+00	1.258E+00	7.113E-04
Eu-152	5.888E-01	0.000E+00	0.000E+00	1.578E+00	1.483E-03
Eu-154	4.506E-01	0.000E+00	0.000E+00	1.208E+00	1.134E-03
Eu-155	2.449E-01	0.000E+00	0.000E+00	6.562E-01	6.165E-04
Fe-55	7.653E-02	0.000E+00	0.000E+00	5.983E-02	1.672E-05
Gd-152	1.390E-14	0.000E+00	0.000E+00	4.232E-15	2.071E-18
H-3	4.062E-02	0.000E+00	0.000E+00	9.137E+01	3.627E+00
Ni-59	9.678E-01	0.000E+00	0.000E+00	9.157E+00	2.846E-02
Ni-63	9.004E-01	0.000E+00	0.000E+00	8.520E+00	2.648E-02
Np-237	8.544E-01	0.000E+00	0.000E+00	4.748E+01	6.212E-01
Pa-231	1.036E-12	0.000E+00	0.000E+00	6.995E-13	7.415E-16
Pb-210	1.320E-13	0.000E+00	0.000E+00	1.104E-12	3.085E-15
Po-210	1.077E-13	0.000E+00	0.000E+00	1.476E-12	6.723E-15
Pu-238	9.187E-01	0.000E+00	0.000E+00	1.484E+00	8.494E-04
Pu-239	9.942E-01	0.000E+00	0.000E+00	1.606E+00	9.191E-04
Pu-240	9.940E-01	0.000E+00	0.000E+00	1.606E+00	9.187E-04
Pu-241	6.144E-01	0.000E+00	0.000E+00	9.923E-01	5.680E-04
Ra-226	1.798E-12	0.000E+00	0.000E+00	1.853E-13	2.540E-16
Ra-228	2.217E-17	0.000E+00	0.000E+00	4.483E-18	1.626E-19
Sb-125	6.911E-02	0.000E+00	0.000E+00	4.220E+00	5.878E-02
Sr-90	6.903E-01	0.000E+00	0.000E+00	3.112E+01	3.520E-01
Tc-99	5.844E-02	0.000E+00	0.000E+00	1.413E+02	5.608E+00
Te-125m	1.678E-02	0.000E+00	0.000E+00	1.425E-01	1.947E-03
Th-228	1.162E-17	0.000E+00	0.000E+00	1.668E-17	7.194E-19
Th-229	1.954E-08	0.000E+00	0.000E+00	8.137E-09	6.748E-11
Th-230	1.237E-09	0.000E+00	0.000E+00	4.460E-10	2.249E-13
Th-232	7.265E-17	0.000E+00	0.000E+00	3.801E-17	7.285E-19
U-233	4.029E-05	0.000E+00	0.000E+00	1.045E-04	7.708E-07
U-234	2.707E-05	0.000E+00	0.000E+00	6.208E-05	4.298E-08
U-235	9.779E-09	0.000E+00	0.000E+00	2.243E-08	1.549E-11
U-236	2.939E-07	0.000E+00	0.000E+00	6.741E-07	4.656E-10

\*The Surface Soil is the top layer of soil within the user specified mixing zone/depth.

Concentrations in the media occurring in pathways that are suppressed are calculated using the current input parameters, i.e. using parameters appearing in the input screen when the pathways are active.

Concentration of H-3 in soil moisture = 0.000E+00 pCi/ml

Concentration of gaseous H-3 in air = 0.000E+00 pCi/m\*\*3

Concentration of gaseous C-14 in air = 0.000E+00 pCi/m\*\*3



Concent : RESRAD Default Parameters

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Concentration of radionuclides in foodstuff media  
at t = 1.000E+01 years\*

Radio- Nuclide	Drinking Water	Nonleafy Vegetable	Leafy Vegetable	Fodder Meat	Fodder Milk	Meat	Milk	Fish	Crustacea
	pCi/L	pCi/kg	pCi/kg	pCi/kg	pCi/kg	pCi/kg	pCi/L	pCi/kg	pCi/kg
Ac-227	3.431E-14	7.727E-15	6.785E-14	4.842E-14	4.370E-14	5.936E-16	9.616E-17	2.731E-15	1.818E-13
Am-241	9.274E-01	2.250E-01	1.844E+00	1.258E+00	1.258E+00	4.650E-03	4.405E-04	9.291E-03	3.097E-01
Am-243	5.004E-07	1.217E-07	9.951E-07	6.807E-07	6.838E-07	2.520E-09	2.389E-10	1.834E-09	6.114E-08
C-14	2.084E+02	5.635E+02	6.366E+01	5.549E+01	4.678E+01	8.983E+02	1.718E+02	3.487E+05	6.347E+04
Ce-144	8.509E-05	2.067E-05	1.692E-04	1.211E-04	1.157E-04	2.817E-07	6.001E-07	5.733E-07	1.911E-05
Cm-243	3.429E-01	8.317E-02	6.819E-01	4.655E-01	4.650E-01	1.222E-03	1.899E-04	1.613E-03	5.377E-02
Cm-244	2.982E-01	7.234E-02	5.930E-01	4.052E-01	4.044E-01	1.063E-03	1.651E-04	1.403E-03	4.677E-02
Co-58	2.013E-15	5.277E-16	4.013E-15	3.332E-15	2.768E-15	1.053E-14	9.469E-16	1.416E-15	9.443E-16
Co-60	1.829E+00	4.793E-01	3.645E+00	2.509E+00	2.492E+00	9.572E+00	8.605E-01	1.285E+00	8.569E-01
Cs-134	5.499E-02	1.391E-02	1.095E-01	7.613E-02	7.481E-02	3.154E-01	1.099E-01	6.204E-02	3.102E-03
Cs-137	1.258E+00	3.182E-01	2.505E+00	1.713E+00	1.711E+00	7.218E+00	2.516E+00	1.420E+00	7.099E-02
Eu-152	1.578E+00	3.833E-01	3.138E+00	2.146E+00	2.140E+00	5.541E-01	2.575E-02	7.399E-02	1.480E+00
Eu-154	1.208E+00	2.933E-01	2.401E+00	1.644E+00	1.638E+00	4.240E-01	1.971E-02	5.662E-02	1.132E+00
Eu-155	6.562E-01	1.594E-01	1.305E+00	8.966E-01	8.901E-01	2.304E-01	1.071E-02	3.077E-02	6.154E-01
Fe-55	5.983E-02	1.451E-02	1.190E-01	8.227E-02	8.118E-02	2.059E-01	4.167E-03	3.338E-03	5.340E-02
Gd-152	4.239E-15	1.052E-15	8.442E-15	6.144E-15	6.166E-15	8.146E-16	1.301E-17	5.415E-17	2.115E-15
H-3	9.143E+01	4.303E+01	2.166E+01	1.525E+01	1.500E+01	4.224E+01	5.113E+01	3.645E+00	3.645E+00
Ni-59	9.157E+00	2.332E+00	1.823E+01	1.245E+01	1.245E+01	7.414E+00	4.263E+01	2.840E+00	2.840E+00
Ni-63	8.520E+00	2.169E+00	1.697E+01	1.159E+01	1.158E+01	6.898E+00	3.966E+01	2.643E+00	2.643E+00
Np-237	4.748E+01	1.174E+01	9.447E+01	6.436E+01	6.439E+01	6.592E+00	1.114E-01	1.860E+01	2.480E+02
Pa-231	7.000E-13	1.722E-13	1.393E-12	9.953E-13	9.934E-13	3.088E-13	6.370E-16	7.073E-15	7.749E-14
Pb-210	1.037E-12	7.091E-14	1.930E-12	2.642E-13	1.532E-12	1.478E-14	4.653E-14	8.801E-13	2.934E-13
Po-210	1.370E-12	5.151E-14	2.515E-12	1.632E-13	1.978E-12	4.495E-14	6.823E-14	6.482E-13	1.236E-10
Pu-238	1.484E+00	3.599E-01	2.951E+00	2.013E+00	2.012E+00	1.477E-02	3.005E-04	2.543E-02	8.477E-02
Pu-239	1.606E+00	3.895E-01	3.193E+00	2.177E+00	2.177E+00	1.599E-02	3.252E-04	2.752E-02	9.173E-02
Pu-240	1.606E+00	3.894E-01	3.193E+00	2.177E+00	2.177E+00	1.599E-02	3.252E-04	2.751E-02	9.170E-02
Pu-241	9.923E-01	2.407E-01	1.973E+00	1.349E+00	1.346E+00	9.881E-03	2.010E-04	1.701E-02	5.669E-02
Ra-226	1.810E-13	3.321E-14	3.515E-13	1.893E-13	2.826E-13	1.138E-14	2.843E-14	1.209E-14	6.043E-14
Ra-228	4.496E-18	1.162E-18	8.971E-18	7.447E-18	7.269E-18	4.327E-19	7.291E-19	8.406E-18	4.203E-17
Sb-125	4.220E+00	1.033E+00	8.394E+00	5.795E+00	5.723E+00	6.814E-01	6.884E-02	5.868E+00	5.868E-01
Sr-90	3.112E+01	1.001E+01	6.245E+01	4.302E+01	4.298E+01	3.587E+01	1.265E+01	2.108E+01	3.514E+01
Tc-99	1.414E+02	2.056E+02	3.211E+02	2.623E+02	2.584E+02	2.285E+00	3.947E+01	1.128E+02	2.819E+01
Te-125m	1.523E-01	7.851E-02	3.250E-01	6.858E-01	6.772E-01	1.787E-01	2.585E-02	8.261E-01	1.455E-01
Th-228	1.668E-17	4.054E-18	3.317E-17	2.470E-17	2.392E-17	1.587E-19	1.328E-20	7.262E-17	3.631E-16
Th-229	8.149E-09	2.026E-09	1.623E-08	1.242E-08	1.257E-08	9.540E-11	9.108E-12	6.313E-09	3.159E-08
Th-230	4.472E-10	1.128E-10	8.919E-10	6.775E-10	6.840E-10	4.978E-12	4.837E-13	2.241E-11	1.121E-10
Th-232	3.810E-17	9.561E-18	7.595E-17	5.913E-17	5.861E-17	4.076E-19	3.789E-20	7.396E-17	3.698E-16
U-233	1.050E-04	2.735E-05	2.099E-04	1.744E-04	1.752E-04	4.982E-06	1.043E-05	9.238E-06	6.686E-05
U-234	6.208E-05	1.505E-05	1.234E-04	8.342E-05	8.385E-05	1.833E-06	5.414E-06	4.295E-07	2.574E-06
U-235	2.243E-08	5.436E-09	4.459E-08	3.013E-08	3.029E-08	6.622E-10	1.956E-09	1.549E-10	9.277E-10
U-236	6.741E-07	1.634E-07	1.340E-06	9.056E-07	9.104E-07	1.990E-08	5.879E-08	4.654E-09	2.788E-08

\*Concentrations are at consumption time and include radioactive decay and ingrowth during storage time.

For livestock fodder, consumption time is t minus meat or milk storage time.

Concentrations in the media occurring in pathways that are suppressed are calculated using the current input parameters, i.e. using parameters appearing in the input screen when the pathways are active.

Concent : RESRAD Default Parameters

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Concentration of radionuclides in environmental media  
at t = 3.000E+01 years

Radio- Nuclide	Contaminat- ed Zone	Surface Soil*	Air Par- ticulate	Well Water	Surface Water
	pCi/g	pCi/g	pCi/m**3	pCi/L	pCi/L
Ac-227	2.357E-12	0.000E+00	0.000E+00	7.290E-13	1.289E-15
Am-241	9.678E-01	0.000E+00	0.000E+00	9.140E-01	9.126E-04
Am-243	4.775E-06	0.000E+00	0.000E+00	1.201E-06	4.293E-10
C-14	1.730E-01	0.000E+00	0.000E+00	8.595E+01	3.412E+00
Ce-144	2.482E-12	0.000E+00	0.000E+00	1.572E-12	1.055E-15
Cm-243	4.798E-01	0.000E+00	0.000E+00	2.113E-01	9.921E-05
Cm-244	3.157E-01	0.000E+00	0.000E+00	1.390E-01	6.528E-05
Co-58	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Co-60	1.798E-02	0.000E+00	0.000E+00	1.360E-01	9.060E-04
Cs-134	4.100E-05	0.000E+00	0.000E+00	6.666E-05	1.115E-07
Cs-137	4.914E-01	0.000E+00	0.000E+00	7.989E-01	1.337E-03
Eu-152	2.042E-01	0.000E+00	0.000E+00	5.650E-01	1.557E-03
Eu-154	9.146E-02	0.000E+00	0.000E+00	2.531E-01	6.976E-04
Eu-155	1.468E-02	0.000E+00	0.000E+00	4.062E-02	1.120E-04
Fe-55	4.483E-04	0.000E+00	0.000E+00	3.538E-04	2.946E-07
Gd-152	2.687E-14	0.000E+00	0.000E+00	8.287E-15	1.036E-17
H-3	6.703E-05	0.000E+00	0.000E+00	1.508E-01	5.985E-03
Ni-59	9.064E-01	0.000E+00	0.000E+00	9.532E+00	8.265E-02
Ni-63	7.301E-01	0.000E+00	0.000E+00	7.678E+00	6.657E-02
Np-237	6.237E-01	0.000E+00	0.000E+00	5.433E+01	1.605E+00
Pa-231	9.221E-12	0.000E+00	0.000E+00	6.241E-12	1.066E-14
Pb-210	9.141E-12	0.000E+00	0.000E+00	1.075E-11	2.106E-14
Po-210	8.539E-12	0.000E+00	0.000E+00	2.113E-11	4.533E-14
Pu-238	7.753E-01	0.000E+00	0.000E+00	1.277E+00	2.163E-03
Pu-239	9.824E-01	0.000E+00	0.000E+00	1.618E+00	2.740E-03
Pu-240	9.814E-01	0.000E+00	0.000E+00	1.616E+00	2.737E-03
Pu-241	2.319E-01	0.000E+00	0.000E+00	3.819E-01	6.469E-04
Ra-226	4.624E-11	0.000E+00	0.000E+00	3.783E-12	4.936E-15
Ra-228	3.863E-16	0.000E+00	0.000E+00	4.063E-17	5.585E-19
Sb-125	3.301E-04	0.000E+00	0.000E+00	3.257E-02	1.008E-03
Sr-90	3.289E-01	0.000E+00	0.000E+00	2.183E+01	5.779E-01
Tc-99	1.996E-04	0.000E+00	0.000E+00	4.825E-01	1.915E-02
Te-125m	8.013E-05	0.000E+00	0.000E+00	1.096E-03	3.363E-05
Th-228	3.099E-16	0.000E+00	0.000E+00	1.528E-16	2.443E-18
Th-229	1.580E-07	0.000E+00	0.000E+00	7.396E-08	1.023E-09
Th-230	1.046E-08	0.000E+00	0.000E+00	3.839E-09	5.722E-12
Th-232	6.470E-16	0.000E+00	0.000E+00	2.756E-16	2.611E-18
U-233	1.032E-04	0.000E+00	0.000E+00	3.410E-04	6.273E-06
U-234	7.412E-05	0.000E+00	0.000E+00	1.741E-04	3.572E-07
U-235	2.893E-08	0.000E+00	0.000E+00	6.792E-08	1.384E-10
U-236	8.691E-07	0.000E+00	0.000E+00	2.041E-06	4.159E-09

\*The Surface Soil is the top layer of soil within the user specified mixing zone/depth.

Concentrations in the media occurring in pathways that are suppressed are calculated using the current input parameters, i.e. using parameters appearing in the input screen when the pathways are active.

Concentration of H-3 in soil moisture = 0.000E+00 pCi/ml

Concentration of gaseous H-3 in air = 0.000E+00 pCi/m\*\*3

Concentration of gaseous C-14 in air = 0.000E+00 pCi/m\*\*3

Concent : RESRAD Default Parameters

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Concentration of radionuclides in foodstuff media  
at t = 3.000E+01 years\*

Radio- Nuclide	Drinking Water	Nonleafy Vegetable	Leafy Vegetable	Fodder Meat	Fodder Milk	Meat	Milk	Fish	Crustacea
	pCi/L	pCi/kg	pCi/kg	pCi/kg	pCi/kg	pCi/kg	pCi/L	pCi/kg	pCi/kg
Ac-227	7.289E-13	1.766E-13	1.449E-12	1.009E-12	1.007E-12	6.044E-15	2.147E-15	1.608E-14	1.068E-12
Am-241	9.140E-01	2.217E-01	1.818E+00	1.239E+00	1.239E+00	4.583E-03	4.342E-04	2.736E-02	9.121E-01
Am-243	1.201E-06	2.915E-07	2.388E-06	1.630E-06	1.631E-06	6.028E-09	5.711E-10	1.288E-08	4.293E-07
C-14	8.596E+01	2.331E+02	2.626E+01	2.320E+01	1.948E+01	3.724E+02	7.101E+01	1.708E+05	3.108E+04
Ce-144	1.572E-12	3.817E-13	3.126E-12	2.238E-12	2.136E-12	5.203E-15	1.108E-14	3.164E-14	1.055E-12
Cm-243	2.113E-01	5.125E-02	4.201E-01	2.869E-01	2.865E-01	7.529E-04	1.170E-04	2.974E-03	9.915E-02
Cm-244	1.390E-01	3.372E-02	2.764E-01	1.889E-01	1.885E-01	4.954E-04	7.697E-05	1.957E-03	6.524E-02
Co-58	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Co-60	1.360E-01	3.563E-02	2.710E-01	1.866E-01	1.853E-01	7.116E-01	6.397E-02	2.716E-01	1.811E-01
Cs-134	6.666E-05	1.686E-05	1.327E-04	9.229E-05	9.069E-05	3.823E-04	1.333E-04	2.229E-04	1.114E-05
Cs-137	7.989E-01	2.020E-01	1.591E+00	1.087E+00	1.086E+00	4.582E+00	1.597E+00	2.671E+00	1.336E-01
Eu-152	5.650E-01	1.372E-01	1.124E+00	7.682E-01	7.662E-01	1.984E-01	9.220E-03	7.781E-02	1.556E+00
Eu-154	2.531E-01	6.147E-02	5.033E-01	3.446E-01	3.432E-01	8.887E-02	4.130E-03	3.486E-02	6.971E-01
Eu-155	4.062E-02	9.867E-03	8.078E-02	5.550E-02	5.510E-02	1.426E-02	6.629E-04	5.595E-03	1.119E-01
Fe-55	3.538E-04	8.582E-05	7.036E-04	4.865E-04	4.801E-04	1.218E-03	2.464E-05	5.889E-05	9.422E-04
Gd-152	8.290E-15	2.020E-15	1.649E-14	1.138E-14	1.139E-14	1.475E-15	2.439E-17	2.614E-16	1.040E-14
H-3	1.509E-01	7.101E-02	3.574E-02	2.517E-02	2.475E-02	6.971E-02	8.437E-02	6.015E-03	6.015E-03
Ni-59	9.532E+00	2.427E+00	1.898E+01	1.296E+01	1.296E+01	7.718E+00	4.438E+01	8.260E+00	8.260E+00
Ni-63	7.678E+00	1.955E+00	1.529E+01	1.044E+01	1.044E+01	6.217E+00	3.574E+01	6.653E+00	6.653E+00
Np-237	5.433E+01	1.343E+01	1.081E+02	7.368E+01	7.370E+01	7.545E+00	1.275E-01	4.814E+01	6.418E+02
Pa-231	6.243E-12	1.527E-12	1.242E-11	8.623E-12	8.633E-12	2.740E-12	4.944E-15	1.017E-13	1.116E-12
Pb-210	1.077E-11	2.680E-12	2.146E-11	1.481E-11	1.511E-11	7.692E-13	4.807E-13	6.371E-12	2.124E-12
Po-210	2.112E-11	5.072E-12	4.197E-11	2.629E-11	2.686E-11	8.289E-12	1.006E-12	4.637E-12	8.836E-10
Pu-238	1.277E+00	3.098E-01	2.539E+00	1.732E+00	1.731E+00	1.272E-02	2.586E-04	6.485E-02	2.162E-01
Pu-239	1.618E+00	3.925E-01	3.218E+00	2.194E+00	2.194E+00	1.611E-02	3.277E-04	8.216E-02	2.739E-01
Pu-240	1.616E+00	3.921E-01	3.214E+00	2.192E+00	2.192E+00	1.609E-02	3.274E-04	8.204E-02	2.735E-01
Pu-241	3.819E-01	9.264E-02	7.595E-01	5.192E-01	5.179E-01	3.803E-03	7.735E-05	1.940E-02	6.465E-02
Ra-226	3.788E-12	9.549E-13	7.547E-12	5.370E-12	5.411E-12	3.383E-13	5.693E-13	2.496E-13	1.248E-12
Ra-228	4.062E-17	1.000E-17	8.078E-17	5.622E-17	5.576E-17	3.483E-18	5.954E-18	2.668E-17	1.334E-16
Sb-125	3.257E-02	7.976E-03	6.478E-02	4.475E-02	4.419E-02	5.261E-03	5.315E-04	1.007E-01	1.007E-02
Sr-90	2.183E+01	7.026E+00	4.381E+01	3.019E+01	3.016E+01	2.517E+01	8.877E+00	3.466E+01	5.776E+01
Tc-99	4.828E-01	7.020E-01	1.097E+00	8.958E-01	8.826E-01	7.805E-03	1.348E-01	3.851E-01	9.628E-02
Te-125m	1.172E-03	6.050E-04	2.501E-03	5.293E-03	5.226E-03	1.379E-03	1.994E-04	1.427E-02	2.514E-03
Th-228	1.523E-16	3.521E-17	3.018E-16	1.852E-16	1.832E-16	1.277E-18	1.093E-19	2.272E-16	1.136E-15
Th-229	7.401E-08	1.817E-08	1.473E-07	1.035E-07	1.064E-07	7.124E-10	6.390E-11	1.015E-07	5.076E-07
Th-230	3.842E-09	9.439E-10	7.648E-09	5.411E-09	5.429E-09	3.658E-11	3.243E-12	5.716E-10	2.859E-09
Th-232	2.754E-16	6.634E-17	5.474E-16	3.736E-16	3.719E-16	2.530E-18	2.241E-19	2.459E-16	1.230E-15
U-233	3.416E-04	8.503E-05	6.805E-04	4.998E-04	5.007E-04	1.228E-05	3.129E-05	6.670E-05	4.298E-04
U-234	1.741E-04	4.223E-05	3.462E-04	2.354E-04	2.358E-04	5.161E-06	1.521E-05	3.571E-06	2.142E-05
U-235	6.792E-08	1.647E-08	1.351E-07	9.181E-08	9.197E-08	2.013E-09	5.933E-09	1.384E-09	8.300E-09
U-236	2.041E-06	4.950E-07	4.058E-06	2.758E-06	2.763E-06	6.049E-08	1.783E-07	4.158E-08	2.494E-07

\*Concentrations are at consumption time and include radioactive decay and ingrowth during storage time.

For livestock fodder, consumption time is t minus meat or milk storage time.

Concentrations in the media occurring in pathways that are suppressed are calculated using the current input parameters, i.e. using parameters appearing in the input screen when the pathways are active.

Concent : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\EMBEDDED PIPE DSR\FCS EMBEDDED PIPE DSR.RAD

Concentration of radionuclides in environmental media  
at t = 1.000E+02 years

Radio- Nuclide	Contaminat- ed Zone	Surface Soil*	Air Par- ticulate	Well Water	Surface Water
	pCi/g	pCi/g	pCi/m**3	pCi/L	pCi/L
Ac-227	5.566E-11	0.000E+00	0.000E+00	1.816E-11	8.138E-14
Am-241	8.514E-01	0.000E+00	0.000E+00	8.366E-01	2.703E-03
Am-243	8.306E-06	0.000E+00	0.000E+00	2.115E-06	2.323E-09
C-14	2.885E-03	0.000E+00	0.000E+00	1.433E+00	5.690E-02
Ce-144	2.069E-39	0.000E+00	0.000E+00	1.327E-39	1.833E-42
Cm-243	8.646E-02	0.000E+00	0.000E+00	3.879E-02	5.993E-05
Cm-244	2.142E-02	0.000E+00	0.000E+00	9.611E-03	1.485E-05
Co-58	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Co-60	1.523E-06	0.000E+00	0.000E+00	1.498E-05	2.793E-07
Cs-134	2.377E-15	0.000E+00	0.000E+00	4.130E-15	2.199E-17
Cs-137	9.366E-02	0.000E+00	0.000E+00	1.627E-01	8.665E-04
Eu-152	5.011E-03	0.000E+00	0.000E+00	1.547E-02	1.318E-04
Eu-154	3.447E-04	0.000E+00	0.000E+00	1.064E-03	9.067E-06
Eu-155	7.746E-07	0.000E+00	0.000E+00	2.391E-06	2.037E-08
Fe-55	6.893E-12	0.000E+00	0.000E+00	5.624E-12	1.525E-14
Gd-152	3.336E-14	0.000E+00	0.000E+00	1.053E-14	2.699E-17
H-3	1.223E-14	0.000E+00	0.000E+00	2.752E-11	1.092E-12
Ni-59	7.206E-01	0.000E+00	0.000E+00	1.067E+01	2.466E-01
Ni-63	3.504E-01	0.000E+00	0.000E+00	5.186E+00	1.199E-01
Np-237	2.072E-01	0.000E+00	0.000E+00	2.777E+01	1.102E+00
Pa-231	9.852E-11	0.000E+00	0.000E+00	7.091E-11	3.607E-13
Pb-210	6.941E-10	0.000E+00	0.000E+00	8.451E-10	3.114E-12
Po-210	6.811E-10	0.000E+00	0.000E+00	1.812E-09	6.677E-12
Pu-238	4.281E-01	0.000E+00	0.000E+00	7.542E-01	4.064E-03
Pu-239	9.417E-01	0.000E+00	0.000E+00	1.659E+00	8.937E-03
Pu-240	9.360E-01	0.000E+00	0.000E+00	1.649E+00	8.881E-03
Pu-241	7.659E-03	0.000E+00	0.000E+00	1.349E-02	7.271E-05
Ra-226	1.455E-09	0.000E+00	0.000E+00	1.251E-10	4.552E-13
Ra-228	5.892E-15	0.000E+00	0.000E+00	5.356E-16	3.548E-18
Sb-125	2.486E-12	0.000E+00	0.000E+00	3.591E-10	1.426E-11
Sr-90	2.455E-02	0.000E+00	0.000E+00	2.773E+00	1.101E-01
Tc-99	4.646E-13	0.000E+00	0.000E+00	1.123E-09	4.458E-11
Te-125m	6.034E-13	0.000E+00	0.000E+00	1.274E-11	5.158E-13
Th-228	5.557E-15	0.000E+00	0.000E+00	2.244E-15	1.510E-17
Th-229	1.252E-06	0.000E+00	0.000E+00	8.719E-07	2.484E-08
Th-230	9.473E-08	0.000E+00	0.000E+00	3.684E-08	1.744E-10
Th-232	6.925E-15	0.000E+00	0.000E+00	2.783E-15	1.802E-17
U-233	2.092E-04	0.000E+00	0.000E+00	1.088E-03	3.596E-05
U-234	1.823E-04	0.000E+00	0.000E+00	4.654E-04	3.051E-06
U-235	9.172E-08	0.000E+00	0.000E+00	2.335E-07	1.500E-09
U-236	2.750E-06	0.000E+00	0.000E+00	7.001E-06	4.496E-08

\*The Surface Soil is the top layer of soil within the user specified mixing zone/depth.

Concentrations in the media occurring in pathways that are suppressed are calculated using the current input parameters, i.e. using parameters appearing in the input screen when the pathways are active.

Concentration of H-3 in soil moisture = 0.000E+00 pCi/ml

Concentration of gaseous H-3 in air = 0.000E+00 pCi/m\*\*3

Concentration of gaseous C-14 in air = 0.000E+00 pCi/m\*\*3

Concent : RESRAD Default Parameters

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Concentration of radionuclides in foodstuff media  
at t = 1.000E+02 years\*

Radio- Nuclide	Drinking Water	Nonleafy Vegetable	Leafy Vegetable	Fodder Meat	Fodder Milk	Meat	Milk	Fish	Crustacea
	pCi/L	pCi/kg	pCi/kg	pCi/kg	pCi/kg	pCi/kg	pCi/L	pCi/kg	pCi/kg
Ac-227	1.817E-11	4.424E-12	3.614E-11	2.482E-11	2.483E-11	8.585E-14	5.320E-14	1.229E-12	8.183E-11
Am-241	8.366E-01	2.029E-01	1.664E+00	1.134E+00	1.134E+00	4.194E-03	3.974E-04	8.107E-02	2.702E+00
Am-243	2.116E-06	5.132E-07	4.207E-06	2.869E-06	2.869E-06	1.061E-08	1.005E-09	6.969E-08	2.323E-06
C-14	1.434E+00	3.887E+00	4.379E-01	3.869E-01	3.248E-01	6.211E+00	1.184E+00	2.848E+03	5.184E+02
Ce-144	1.327E-39	3.223E-40	2.638E-39	1.889E-39	1.803E-39	4.204E-42	9.809E-42	5.501E-41	1.834E-39
Cm-243	3.879E-02	9.410E-03	7.714E-02	5.267E-02	5.260E-02	1.382E-04	2.148E-05	1.798E-03	5.992E-02
Cm-244	9.611E-03	2.331E-03	1.911E-02	1.306E-02	1.303E-02	3.425E-05	5.321E-06	4.454E-04	1.485E-02
Co-58	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Co-60	1.498E-05	3.925E-06	2.985E-05	2.055E-05	2.041E-05	7.839E-05	7.047E-06	8.378E-05	5.585E-05
Cs-134	4.130E-15	1.044E-15	8.222E-15	5.717E-15	5.619E-15	2.369E-14	8.256E-15	4.397E-14	2.199E-15
Cs-137	1.627E-01	4.115E-02	3.239E-01	2.214E-01	2.212E-01	9.333E-01	3.253E-01	1.733E+00	8.663E-02
Eu-152	1.547E-02	3.756E-03	3.076E-02	2.103E-02	2.097E-02	5.430E-03	2.524E-04	6.589E-03	1.318E-01
Eu-154	1.064E-03	2.584E-04	2.115E-03	1.449E-03	1.443E-03	3.735E-04	1.736E-05	4.533E-04	9.065E-03
Eu-155	2.391E-06	5.806E-07	4.754E-06	3.266E-06	3.243E-06	8.394E-07	3.901E-08	1.019E-06	2.037E-05
Fe-55	5.624E-12	1.364E-12	1.118E-11	7.733E-12	7.631E-12	1.935E-11	3.917E-13	3.050E-12	4.880E-11
Gd-152	1.053E-14	2.556E-15	2.094E-14	1.428E-14	1.428E-14	1.840E-15	3.070E-17	6.750E-16	2.700E-14
H-3	2.754E-11	1.296E-11	6.524E-12	4.594E-12	4.518E-12	1.272E-11	1.540E-11	1.098E-12	1.098E-12
Ni-59	1.067E+01	2.716E+00	2.124E+01	1.450E+01	1.450E+01	8.637E+00	4.966E+01	2.465E+01	2.465E+01
Ni-63	5.186E+00	1.321E+00	1.033E+01	7.054E+00	7.052E+00	4.199E+00	2.415E+01	1.199E+01	1.199E+01
Np-237	2.777E+01	6.870E+00	5.525E+01	3.780E+01	3.777E+01	3.865E+00	6.526E-02	3.308E+01	4.410E+02
Pa-231	7.093E-11	1.733E-11	1.411E-10	9.673E-11	9.677E-11	3.105E-11	5.304E-14	3.625E-12	3.985E-11
Pb-210	8.450E-10	2.055E-10	1.680E-09	1.135E-09	1.137E-09	5.868E-11	3.677E-11	9.342E-10	3.114E-10
Po-210	1.807E-09	4.221E-10	3.584E-09	2.173E-09	2.176E-09	6.850E-10	8.341E-11	6.773E-10	1.290E-07
Pu-238	7.542E-01	1.829E-01	1.500E+00	1.023E+00	1.023E+00	7.509E-03	1.527E-04	1.219E-01	4.063E-01
Pu-239	1.659E+00	4.023E-01	3.298E+00	2.249E+00	2.249E+00	1.652E-02	3.359E-04	2.681E-01	8.935E-01
Pu-240	1.649E+00	3.999E-01	3.278E+00	2.235E+00	2.235E+00	1.642E-02	3.339E-04	2.664E-01	8.879E-01
Pu-241	1.349E-02	3.273E-03	2.683E-02	1.834E-02	1.830E-02	1.343E-04	2.733E-06	2.181E-03	7.269E-03
Ra-226	1.251E-10	3.112E-11	2.491E-10	1.717E-10	1.719E-10	1.098E-11	1.838E-11	2.290E-11	1.145E-10
Ra-228	5.362E-16	1.350E-16	1.068E-15	7.723E-16	7.716E-16	4.782E-17	8.091E-17	1.794E-16	8.970E-16
Sb-125	3.592E-10	8.803E-11	7.144E-10	4.955E-10	4.886E-10	5.815E-11	5.871E-12	1.426E-09	1.426E-10
Sr-90	2.773E+00	8.929E-01	5.565E+00	3.847E+00	3.840E+00	3.203E+00	1.129E+00	6.606E+00	1.101E+01
Tc-99	1.124E-09	1.634E-09	2.552E-09	2.085E-09	2.054E-09	1.817E-11	3.138E-10	8.965E-10	2.241E-10
Te-125m	1.357E-11	6.855E-12	2.886E-11	5.915E-11	5.833E-11	1.551E-11	2.240E-12	2.169E-10	3.838E-11
Th-228	2.242E-15	5.366E-16	4.454E-15	2.936E-15	2.933E-15	1.983E-17	1.678E-18	1.487E-15	7.434E-15
Th-229	8.717E-07	2.110E-07	1.733E-06	1.187E-06	1.201E-06	7.771E-09	6.657E-10	2.467E-06	1.234E-05
Th-230	3.685E-08	8.968E-09	7.330E-08	5.051E-08	5.056E-08	3.300E-10	2.804E-11	1.743E-08	8.717E-08
Th-232	2.783E-15	6.764E-16	5.535E-15	3.826E-15	3.824E-15	2.497E-17	2.126E-18	1.785E-15	8.927E-15
U-233	1.089E-03	2.652E-04	2.165E-03	1.495E-03	1.495E-03	3.342E-05	9.589E-05	3.624E-04	2.194E-03
U-234	4.654E-04	1.129E-04	9.254E-04	6.306E-04	6.308E-04	1.381E-05	4.068E-05	3.051E-05	1.830E-04
U-235	2.335E-07	5.665E-08	4.643E-07	3.163E-07	3.165E-07	6.930E-09	2.041E-08	1.500E-08	8.996E-08
U-236	7.001E-06	1.698E-06	1.392E-05	9.483E-06	9.488E-06	2.078E-07	6.118E-07	4.496E-07	2.697E-06

\*Concentrations are at consumption time and include radioactive decay and ingrowth during storage time.

For livestock fodder, consumption time is t minus meat or milk storage time.

Concentrations in the media occurring in pathways that are suppressed are calculated using the current input parameters, i.e. using parameters appearing in the input screen when the pathways are active.

Concent : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\EMBEDDED PIPE DSR\FCS EMBEDDED PIPE DSR.RAD

Concentration of radionuclides in environmental media  
at t = 3.000E+02 years

Radio- Nuclide	Contaminat- ed Zone	Surface Soil*	Air Par- ticulate	Well Water	Surface Water
	pCi/g	pCi/g	pCi/m**3	pCi/L	pCi/L
Ac-227	6.512E-10	0.000E+00	0.000E+00	2.512E-10	3.216E-12
Am-241	5.775E-01	0.000E+00	0.000E+00	6.330E-01	5.673E-03
Am-243	8.771E-06	0.000E+00	0.000E+00	2.305E-06	6.627E-09
C-14	2.402E-08	0.000E+00	0.000E+00	1.193E-05	4.737E-07
Ce-144	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cm-243	6.464E-04	0.000E+00	0.000E+00	3.057E-04	1.366E-06
Cm-244	9.830E-06	0.000E+00	0.000E+00	4.649E-06	2.077E-08
Co-58	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Co-60	3.535E-18	0.000E+00	0.000E+00	6.694E-17	2.533E-18
Cs-134	1.401E-44	0.000E+00	0.000E+00	2.242E-44	0.000E+00
Cs-137	8.216E-04	0.000E+00	0.000E+00	1.710E-03	2.418E-05
Eu-152	1.258E-07	0.000E+00	0.000E+00	5.191E-07	1.097E-08
Eu-154	4.096E-11	0.000E+00	0.000E+00	1.690E-10	3.569E-12
Eu-155	4.648E-19	0.000E+00	0.000E+00	1.917E-18	4.050E-20
Fe-55	3.275E-34	0.000E+00	0.000E+00	2.820E-34	1.592E-36
Gd-152	3.280E-14	0.000E+00	0.000E+00	1.074E-14	4.936E-17
H-3	1.831E-42	0.000E+00	0.000E+00	4.119E-39	1.635E-40
Ni-59	3.742E-01	0.000E+00	0.000E+00	1.041E+01	4.132E-01
Ni-63	4.301E-02	0.000E+00	0.000E+00	1.196E+00	4.749E-02
Np-237	8.913E-03	0.000E+00	0.000E+00	1.194E+00	4.738E-02
Pa-231	7.924E-10	0.000E+00	0.000E+00	6.779E-10	9.195E-12
Pb-210	1.994E-08	0.000E+00	0.000E+00	2.733E-08	2.693E-10
Po-210	1.983E-08	0.000E+00	0.000E+00	5.939E-08	5.833E-10
Pu-238	7.848E-02	0.000E+00	0.000E+00	1.660E-01	2.372E-03
Pu-239	8.333E-01	0.000E+00	0.000E+00	1.763E+00	2.518E-02
Pu-240	8.155E-01	0.000E+00	0.000E+00	1.725E+00	2.464E-02
Pu-241	4.493E-07	0.000E+00	0.000E+00	9.506E-07	1.358E-08
Ra-226	2.601E-08	0.000E+00	0.000E+00	2.516E-09	2.453E-11
Ra-228	5.314E-14	0.000E+00	0.000E+00	5.435E-15	6.733E-17
Sb-125	1.537E-35	0.000E+00	0.000E+00	2.220E-33	8.811E-35
Sr-90	1.481E-05	0.000E+00	0.000E+00	1.672E-03	6.637E-05
Tc-99	1.003E-37	0.000E+00	0.000E+00	2.424E-34	9.621E-36
Te-125m	3.730E-36	0.000E+00	0.000E+00	7.872E-35	3.188E-36
Th-228	5.220E-14	0.000E+00	0.000E+00	2.364E-14	2.915E-16
Th-229	5.450E-06	0.000E+00	0.000E+00	4.746E-06	1.638E-07
Th-230	5.147E-07	0.000E+00	0.000E+00	2.340E-07	2.930E-09
Th-232	5.593E-14	0.000E+00	0.000E+00	2.550E-14	3.224E-16
U-233	2.260E-04	0.000E+00	0.000E+00	1.375E-03	5.054E-05
U-234	2.597E-04	0.000E+00	0.000E+00	8.387E-04	1.464E-05
U-235	2.384E-07	0.000E+00	0.000E+00	7.548E-07	1.256E-08
U-236	7.093E-06	0.000E+00	0.000E+00	2.246E-05	3.740E-07

\*The Surface Soil is the top layer of soil within the user specified mixing zone/depth.

Concentrations in the media occurring in pathways that are suppressed are calculated using the current input parameters, i.e. using parameters appearing in the input screen when the pathways are active.

Concentration of H-3 in soil moisture = 0.000E+00 pCi/ml

Concentration of gaseous H-3 in air = 0.000E+00 pCi/m\*\*3

Concentration of gaseous C-14 in air = 0.000E+00 pCi/m\*\*3

Concent : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\EMBEDDED PIPE DSR\FCS EMBEDDED PIPE DSR.RAD

Concentration of radionuclides in foodstuff media  
at t = 3.000E+02 years\*

Radio- Nuclide	Drinking Water	Nonleafy Vegetable	Leafy Vegetable	Fodder Meat	Fodder Milk	Meat	Milk	Fish	Crustacea
	pCi/L	pCi/kg	pCi/kg	pCi/kg	pCi/kg	pCi/kg	pCi/L	pCi/kg	pCi/kg
Ac-227	2.512E-10	8.011E-11	5.187E-10	3.614E-10	3.617E-10	9.866E-13	7.587E-13	4.822E-11	3.211E-09
Am-241	6.330E-01	1.659E-01	1.271E+00	8.705E-01	8.705E-01	3.193E-03	3.032E-04	1.702E-01	5.673E+00
Am-243	2.305E-06	7.462E-07	4.772E-06	3.311E-06	3.311E-06	1.185E-08	1.133E-09	1.988E-07	6.627E-06
C-14	1.194E-05	3.243E-05	3.663E-06	3.243E-06	2.723E-06	5.176E-05	9.872E-06	2.371E-02	4.316E-03
Ce-144	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cm-243	3.057E-04	8.793E-05	6.217E-04	4.287E-04	4.282E-04	1.104E-06	1.725E-07	4.097E-05	1.366E-03
Cm-244	4.649E-06	1.337E-06	9.454E-06	6.524E-06	6.512E-06	1.680E-08	2.624E-09	6.231E-07	2.077E-05
Co-58	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Co-60	6.694E-17	2.355E-17	1.394E-16	9.784E-17	9.720E-17	3.600E-16	3.271E-17	7.597E-16	5.065E-16
Cs-134	2.242E-44	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cs-137	1.710E-03	1.182E-03	4.157E-03	3.070E-03	3.070E-03	1.113E-02	4.064E-03	4.836E-02	2.418E-03
Eu-152	5.191E-07	1.323E-07	1.039E-06	7.120E-07	7.101E-07	1.829E-07	8.515E-09	5.483E-07	1.097E-05
Eu-154	1.690E-10	4.304E-11	3.380E-10	2.321E-10	2.311E-10	5.954E-11	2.771E-12	1.784E-10	3.569E-09
Eu-155	1.917E-18	4.885E-19	3.836E-18	2.642E-18	2.623E-18	6.757E-19	3.145E-20	2.025E-18	4.050E-17
Fe-55	2.820E-34	7.540E-35	5.678E-34	3.948E-34	3.896E-34	9.780E-34	1.985E-35	3.183E-34	5.094E-33
Gd-152	1.074E-14	3.563E-15	2.232E-14	1.551E-14	1.552E-14	1.928E-15	3.251E-17	1.234E-15	4.935E-14
H-3	4.122E-39	1.988E-39	1.026E-39	7.390E-40	7.278E-40	1.916E-39	2.330E-39	1.643E-40	1.643E-40
Ni-59	1.041E+01	3.049E+00	2.112E+01	1.456E+01	1.456E+01	8.530E+00	4.927E+01	4.132E+01	4.132E+01
Ni-63	1.196E+00	3.504E-01	2.428E+00	1.674E+00	1.673E+00	9.805E-01	5.663E+00	4.749E+00	4.749E+00
Np-237	1.194E+00	2.992E-01	2.379E+00	1.629E+00	1.628E+00	1.663E-01	2.810E-03	1.422E+00	1.896E+01
Pa-231	6.779E-10	2.576E-10	1.441E-09	1.012E-09	1.013E-09	3.086E-10	5.273E-13	9.193E-11	1.011E-09
Pb-210	2.733E-08	8.984E-09	5.668E-08	3.920E-08	3.923E-08	1.953E-09	1.236E-09	8.075E-08	2.692E-08
Po-210	5.923E-08	1.421E-08	1.177E-07	7.209E-08	7.214E-08	2.257E-08	2.751E-09	5.910E-08	1.126E-05
Pu-238	1.660E-01	4.194E-02	3.318E-01	2.268E-01	2.268E-01	1.658E-03	3.377E-05	7.115E-02	2.372E-01
Pu-239	1.763E+00	4.453E-01	3.523E+00	2.408E+00	2.408E+00	1.761E-02	3.586E-04	7.554E-01	2.518E+00
Pu-240	1.725E+00	4.358E-01	3.448E+00	2.356E+00	2.356E+00	1.723E-02	3.509E-04	7.392E-01	2.464E+00
Pu-241	9.506E-07	2.401E-07	1.900E-06	1.302E-06	1.298E-06	9.494E-09	1.933E-10	4.074E-07	1.358E-06
Ra-226	2.516E-09	1.274E-08	1.716E-08	1.539E-08	1.545E-08	5.445E-10	1.128E-09	1.229E-09	6.145E-09
Ra-228	5.441E-15	2.602E-14	3.567E-14	3.189E-14	3.203E-14	1.134E-15	2.350E-15	3.439E-15	1.720E-14
Sb-125	2.220E-33	5.476E-34	4.419E-33	3.066E-33	3.024E-33	3.596E-34	3.631E-35	8.814E-33	8.814E-34
Sr-90	1.672E-03	6.402E-04	3.457E-03	2.421E-03	2.416E-03	1.967E-03	6.984E-04	3.983E-03	6.638E-03
Tc-99	2.426E-34	3.635E-34	5.616E-34	4.611E-34	4.544E-34	3.969E-36	6.883E-35	1.935E-34	4.837E-35
Te-125m	8.386E-35	6.478E-35	2.043E-34	3.817E-34	3.765E-34	9.829E-35	1.434E-35	1.341E-33	2.372E-34
Th-228	2.362E-14	6.611E-15	4.757E-14	3.256E-14	3.268E-14	2.262E-16	1.973E-17	2.903E-14	1.451E-13
Th-229	4.746E-06	1.215E-06	9.501E-06	6.514E-06	6.509E-06	4.186E-08	3.512E-09	1.638E-05	8.188E-05
Th-230	2.340E-07	6.280E-08	4.714E-07	3.242E-07	3.243E-07	2.075E-09	1.745E-10	2.930E-07	1.465E-06
Th-232	2.550E-14	6.850E-15	5.138E-14	3.537E-14	3.549E-14	2.269E-16	1.913E-17	3.229E-14	1.615E-13
U-233	1.375E-03	3.404E-04	2.742E-03	1.872E-03	1.872E-03	4.095E-05	1.205E-04	5.055E-04	3.034E-03
U-234	8.387E-04	2.111E-04	1.675E-03	1.145E-03	1.145E-03	2.498E-05	7.361E-05	1.464E-04	8.785E-04
U-235	7.548E-07	1.901E-07	1.508E-06	1.030E-06	1.030E-06	2.247E-08	6.625E-08	1.256E-07	7.536E-07
U-236	2.246E-05	5.657E-06	4.488E-05	3.065E-05	3.066E-05	6.688E-07	1.971E-06	3.740E-06	2.244E-05

\*Concentrations are at consumption time and include radioactive decay and ingrowth during storage time.

For livestock fodder, consumption time is t minus meat or milk storage time.

Concentrations in the media occurring in pathways that are suppressed are calculated using the current input parameters, i.e. using parameters appearing in the input screen when the pathways are active.

Concent : RESRAD Default Parameters

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Concentration of radionuclides in environmental media  
at t = 1.000E+03 years

Radio- Nuclide	Contaminat- ed Zone	Surface Soil*	Air Par- ticulate	Well Water	Surface Water
	pCi/g	pCi/g	pCi/m**3	pCi/L	pCi/L
Ac-227	5.672E-09	0.000E+00	0.000E+00	3.733E-09	1.185E-10
Am-241	1.483E-01	0.000E+00	0.000E+00	2.313E-01	5.483E-03
Am-243	7.711E-06	0.000E+00	0.000E+00	2.247E-06	1.876E-08
C-14	3.999E-26	0.000E+00	0.000E+00	1.987E-23	7.887E-25
Ce-144	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cm-243	2.335E-11	0.000E+00	0.000E+00	1.317E-11	1.741E-13
Cm-244	2.035E-17	0.000E+00	0.000E+00	1.148E-17	1.517E-19
Co-58	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Co-60	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cs-134	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cs-137	5.195E-11	0.000E+00	0.000E+00	1.898E-10	6.313E-12
Eu-152	9.988E-24	0.000E+00	0.000E+00	8.176E-23	3.246E-24
Eu-154	2.368E-35	0.000E+00	0.000E+00	1.645E-34	5.974E-36
Eu-155	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Fe-55	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Gd-152	3.037E-14	0.000E+00	0.000E+00	1.124E-14	1.216E-16
H-3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni-59	3.777E-02	0.000E+00	0.000E+00	1.050E+00	4.169E-02
Ni-63	2.789E-05	0.000E+00	0.000E+00	7.756E-04	3.079E-05
Np-237	3.627E-06	0.000E+00	0.000E+00	4.442E-04	1.684E-05
Pa-231	5.960E-09	0.000E+00	0.000E+00	8.686E-09	2.792E-10
Pb-210	3.146E-07	0.000E+00	0.000E+00	6.136E-07	1.494E-08
Po-210	3.141E-07	0.000E+00	0.000E+00	1.338E-06	3.250E-08
Pu-238	2.069E-04	0.000E+00	0.000E+00	7.731E-04	2.590E-05
Pu-239	5.429E-01	0.000E+00	0.000E+00	2.029E+00	6.794E-02
Pu-240	5.034E-01	0.000E+00	0.000E+00	1.881E+00	6.299E-02
Pu-241	6.948E-22	0.000E+00	0.000E+00	2.596E-21	8.696E-23
Ra-226	3.376E-07	0.000E+00	0.000E+00	4.641E-08	1.124E-09
Ra-228	4.226E-13	0.000E+00	0.000E+00	7.132E-14	2.181E-15
Sb-125	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Sr-90	7.969E-17	0.000E+00	0.000E+00	8.999E-15	3.572E-16
Tc-99	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Te-125m	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Th-228	4.207E-13	0.000E+00	0.000E+00	3.144E-13	9.606E-15
Th-229	1.517E-05	0.000E+00	0.000E+00	1.550E-05	5.900E-07
Th-230	1.748E-06	0.000E+00	0.000E+00	1.264E-06	3.741E-08
Th-232	4.279E-13	0.000E+00	0.000E+00	3.221E-13	9.902E-15
U-233	1.278E-04	0.000E+00	0.000E+00	8.991E-04	3.569E-05
U-234	1.615E-04	0.000E+00	0.000E+00	1.109E-03	4.348E-05
U-235	4.812E-07	0.000E+00	0.000E+00	2.964E-06	1.097E-07
U-236	1.392E-05	0.000E+00	0.000E+00	8.591E-05	3.183E-06

\*The Surface Soil is the top layer of soil within the user specified mixing zone/depth.

Concentrations in the media occurring in pathways that are suppressed are calculated using the current input parameters, i.e. using parameters appearing in the input screen when the pathways are active.

Concentration of H-3 in soil moisture = 0.000E+00 pCi/ml

Concentration of gaseous H-3 in air = 0.000E+00 pCi/m\*\*3

Concentration of gaseous C-14 in air = 0.000E+00 pCi/m\*\*3



Concent : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\EMBEDDED PIPE DSR\FCS EMBEDDED PIPE DSR.RAD

## Concentration of radionuclides in foodstuff media

at t = 1.000E+03 years\*

Radio- Nuclide	Drinking Water	Nonleafy Vegetable	Leafy Vegetable	Fodder Meat	Fodder Milk	Meat	Milk	Fish	Crustacea
	pCi/L	pCi/kg	pCi/kg	pCi/kg	pCi/kg	pCi/kg	pCi/L	pCi/kg	pCi/kg
Ac-227	3.734E-09	5.529E-09	1.203E-08	9.747E-09	9.748E-09	2.022E-11	1.680E-11	1.778E-09	1.184E-07
Am-241	2.313E-01	1.442E-01	5.480E-01	4.018E-01	4.017E-01	1.297E-03	1.280E-04	1.645E-01	5.483E+00
Am-243	2.247E-06	5.127E-06	9.050E-06	7.629E-06	7.629E-06	1.839E-08	2.012E-09	5.628E-07	1.876E-05
C-14	1.987E-23	5.734E-23	6.849E-24	6.393E-24	5.368E-24	8.818E-23	1.702E-23	3.948E-20	7.185E-21
Ce-144	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cm-243	1.317E-11	1.707E-11	4.007E-11	3.178E-11	3.174E-11	6.229E-14	1.063E-14	5.222E-12	1.741E-10
Cm-244	1.148E-17	1.487E-17	3.491E-17	2.771E-17	2.766E-17	5.427E-20	9.259E-21	4.550E-18	1.517E-16
Co-58	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Co-60	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cs-134	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Cs-137	1.898E-10	1.369E-09	1.699E-09	1.581E-09	1.579E-09	3.437E-09	1.523E-09	1.263E-08	6.313E-10
Eu-152	8.176E-23	3.351E-23	1.762E-22	1.249E-22	1.246E-22	3.020E-23	1.431E-24	1.623E-22	3.246E-21
Eu-154	1.645E-34	7.232E-35	3.594E-34	2.565E-34	2.555E-34	6.128E-35	2.913E-36	2.987E-34	5.974E-33
Eu-155	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Fe-55	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Gd-152	1.124E-14	2.738E-14	4.701E-14	3.990E-14	3.990E-14	3.300E-15	6.393E-17	3.041E-15	1.216E-13
H-3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni-59	1.050E+00	1.387E+00	3.211E+00	2.549E+00	2.549E+00	1.132E+00	7.150E+00	4.170E+00	4.170E+00
Ni-63	7.756E-04	1.024E-03	2.371E-03	1.883E-03	1.882E-03	8.358E-04	5.279E-03	3.079E-03	3.079E-03
Np-237	4.442E-04	1.531E-04	9.270E-04	6.465E-04	6.464E-04	6.360E-05	1.087E-06	5.054E-04	6.738E-03
Pa-231	8.686E-09	2.147E-08	3.663E-08	3.113E-08	3.114E-08	6.416E-09	1.246E-11	2.792E-09	3.071E-08
Pb-210	6.136E-07	1.175E-06	2.242E-06	1.863E-06	1.863E-06	6.532E-08	4.639E-08	4.478E-06	1.493E-06
Po-210	1.334E-06	4.760E-07	2.752E-06	1.900E-06	1.900E-06	5.444E-07	6.794E-08	3.293E-06	6.277E-04
Pu-238	7.731E-04	3.105E-04	1.660E-03	1.172E-03	1.171E-03	8.078E-06	1.674E-07	7.769E-04	2.590E-03
Pu-239	2.029E+00	8.146E-01	4.356E+00	3.073E+00	3.073E+00	2.120E-02	4.392E-04	2.038E+00	6.794E+00
Pu-240	1.881E+00	7.553E-01	4.039E+00	2.849E+00	2.849E+00	1.965E-02	4.072E-04	1.890E+00	6.299E+00
Pu-241	2.596E-21	1.043E-21	5.575E-21	3.943E-21	3.933E-21	2.713E-23	5.621E-25	2.609E-21	8.696E-21
Ra-226	4.641E-08	4.395E-06	4.476E-06	4.445E-06	4.446E-06	1.228E-07	2.838E-07	5.622E-08	2.811E-07
Ra-228	7.141E-14	5.481E-12	5.628E-12	5.510E-12	5.510E-12	1.519E-13	3.525E-13	1.111E-13	5.556E-13
Sb-125	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Sr-90	8.999E-15	1.817E-14	3.332E-14	2.781E-14	2.775E-14	1.583E-14	6.332E-15	2.144E-14	3.573E-14
Tc-99	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Te-125m	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Th-228	3.142E-13	2.856E-13	7.662E-13	7.804E-13	7.803E-13	6.626E-15	6.900E-16	9.548E-13	4.774E-12
Th-229	1.550E-05	8.682E-06	3.574E-05	2.596E-05	2.597E-05	1.489E-07	1.288E-08	5.899E-05	2.949E-04
Th-230	1.264E-06	8.739E-07	3.080E-06	2.282E-06	2.282E-06	1.259E-08	1.103E-09	3.741E-06	1.870E-05
Th-232	3.221E-13	2.171E-13	7.794E-13	5.766E-13	5.765E-13	3.200E-15	2.799E-16	9.903E-13	4.952E-12
U-233	8.991E-04	3.219E-04	1.892E-03	1.323E-03	1.323E-03	2.766E-05	8.255E-05	3.569E-04	2.141E-03
U-234	1.109E-03	4.002E-04	2.336E-03	1.635E-03	1.634E-03	3.413E-05	1.019E-04	4.348E-04	2.609E-03
U-235	2.964E-06	1.110E-06	6.284E-06	4.409E-06	4.409E-06	9.161E-08	2.739E-07	1.097E-06	6.582E-06
U-236	8.591E-05	3.215E-05	1.821E-04	1.278E-04	1.278E-04	2.655E-06	7.939E-06	3.183E-05	1.910E-04

\*Concentrations are at consumption time and include radioactive decay and ingrowth during storage time.

For livestock fodder, consumption time is t minus meat or milk storage time.

Concentrations in the media occurring in pathways that are suppressed are calculated using the current input parameters, i.e. using parameters appearing in the input screen when the pathways are active.