

Probabilistic results summary : RESRAD Default Parameters

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Part VI: Uncertainty Analysis

RESRAD Uncertainty Analysis Results

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Probabilistic Total Dose Summary

| Nuclide (j) | Peak Time | Peak Dose | DOSE(j,t), mrem/yr | | | | | | | |
|----------------|--------------|--------------|--------------------|----------|----------|----------|----------|----------|----------|----------|
| | | | t= 0.00E+00 | 1.00E+00 | 3.00E+00 | 1.00E+01 | 3.00E+01 | 1.00E+02 | 3.00E+02 | 1.00E+03 |
| Eu-154 | | | | | | | | | | |
| Min | 0.00E+00 | 3.80E-05 | 3.80E-05 | 3.58E-05 | 3.18E-05 | 2.10E-05 | 4.51E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Max | 7.96E+01 | 1.44E+01 | 1.44E+01 | 1.12E+01 | 6.88E+00 | 1.88E+00 | 3.30E-01 | 1.29E-03 | 1.85E-10 | 0.00E+00 |
| Avg | 9.56E-01 | 2.94E-01 | 2.63E-01 | 2.27E-01 | 1.72E-01 | 8.88E-02 | 1.68E-02 | 6.65E-05 | 4.24E-11 | 0.00E+00 |
| Std | 6.60E+00 | 1.14E+00 | 1.13E+00 | 9.25E-01 | 6.35E-01 | 2.62E-01 | 5.26E-02 | 2.38E-04 | 7.02E-11 | 0.00E+00 |
| ALL | | | | | | | | | | |
| Min | 0.00E+00 | 3.80E-05 | 3.80E-05 | 3.58E-05 | 3.18E-05 | 2.10E-05 | 4.51E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Max | 7.96E+01 | 1.44E+01 | 1.44E+01 | 1.12E+01 | 6.88E+00 | 1.88E+00 | 3.30E-01 | 1.29E-03 | 1.85E-10 | 0.00E+00 |
| Avg | 9.56E-01 | 2.94E-01 | 2.63E-01 | 2.27E-01 | 1.72E-01 | 8.88E-02 | 1.68E-02 | 6.65E-05 | 4.24E-11 | 0.00E+00 |
| Std | 6.60E+00 | 1.14E+00 | 1.13E+00 | 9.25E-01 | 6.35E-01 | 2.62E-01 | 5.26E-02 | 2.38E-04 | 7.02E-11 | 0.00E+00 |

ALL is total dose summed for all nuclides.

Probabilistic results summary : RESRAD Default Parameters

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Probabilistic Risk Summary

| Nuclide | RISK(j,t) | | | | | | | |
|---------|-------------|----------|----------|----------|----------|----------|----------|----------|
| | t= 0.00E+00 | 1.00E+00 | 3.00E+00 | 1.00E+01 | 3.00E+01 | 1.00E+02 | 3.00E+02 | 1.00E+03 |
| Eu-154 | | | | | | | | |
| Min | 9.31E-10 | 8.76E-10 | 7.77E-10 | 5.11E-10 | 1.21E-10 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Max | 5.50E-04 | 4.31E-04 | 2.64E-04 | 6.80E-05 | 8.41E-06 | 3.06E-08 | 4.40E-15 | 0.00E+00 |
| Avg | 9.66E-06 | 8.33E-06 | 6.27E-06 | 2.97E-06 | 5.04E-07 | 1.80E-09 | 1.02E-15 | 0.00E+00 |
| Std | 4.24E-05 | 3.47E-05 | 2.36E-05 | 8.45E-06 | 1.35E-06 | 5.70E-09 | 1.66E-15 | 0.00E+00 |
| ALL | | | | | | | | |
| Min | 9.31E-10 | 8.76E-10 | 7.77E-10 | 5.11E-10 | 1.21E-10 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Max | 5.50E-04 | 4.31E-04 | 2.64E-04 | 6.80E-05 | 8.41E-06 | 3.06E-08 | 4.40E-15 | 0.00E+00 |
| Avg | 9.66E-06 | 8.33E-06 | 6.27E-06 | 2.97E-06 | 5.04E-07 | 1.80E-09 | 1.02E-15 | 0.00E+00 |
| Std | 4.24E-05 | 3.47E-05 | 2.36E-05 | 8.45E-06 | 1.35E-06 | 5.70E-09 | 1.66E-15 | 0.00E+00 |

ALL is total risk summed for all nuclides.

Probabilistic results summary : RESRAD Default Parameters

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Probabilistic Dose vs Pathway(i): Ground External

| Nuclide | DOSE(i,j,t), mrem/yr | | | | | | | |
|---------|----------------------|----------|----------|----------|----------|----------|----------|----------|
| | t= 0.00E+00 | 1.00E+00 | 3.00E+00 | 1.00E+01 | 3.00E+01 | 1.00E+02 | 3.00E+02 | 1.00E+03 |
| Eu-154 | | | | | | | | |
| Min | 3.12E-05 | 2.34E-05 | 1.31E-05 | 1.75E-06 | 5.51E-09 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Max | 1.40E-04 | 1.40E-03 | 1.39E-01 | 1.54E+00 | 3.19E-01 | 1.28E-03 | 1.85E-10 | 0.00E+00 |
| Avg | 3.57E-05 | 3.94E-05 | 3.33E-04 | 1.81E-02 | 8.07E-03 | 4.89E-05 | 4.11E-11 | 0.00E+00 |
| Std | 6.69E-06 | 6.50E-05 | 4.90E-03 | 1.59E-01 | 4.91E-02 | 2.37E-04 | 7.04E-11 | 0.00E+00 |
| ALL | | | | | | | | |
| Min | 3.12E-05 | 2.34E-05 | 1.31E-05 | 1.75E-06 | 5.51E-09 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Max | 1.40E-04 | 1.40E-03 | 1.39E-01 | 1.54E+00 | 3.19E-01 | 1.28E-03 | 1.85E-10 | 0.00E+00 |
| Avg | 3.57E-05 | 3.94E-05 | 3.33E-04 | 1.81E-02 | 8.07E-03 | 4.89E-05 | 4.11E-11 | 0.00E+00 |
| Std | 6.69E-06 | 6.50E-05 | 4.90E-03 | 1.59E-01 | 4.91E-02 | 2.37E-04 | 7.04E-11 | 0.00E+00 |

ALL is total pathway dose summed for all nuclides.

Probabilistic results summary : RESRAD Default Parameters

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Probabilistic Dose vs Pathway(i): Inhalation (w/o Radon)

| Nuclide | DOSE(i,j,t), mrem/yr | | | | | | | |
|---------|----------------------|----------|----------|----------|----------|----------|----------|----------|
| | t= 0.00E+00 | 1.00E+00 | 3.00E+00 | 1.00E+01 | 3.00E+01 | 1.00E+02 | 3.00E+02 | 1.00E+03 |
| Eu-154 | | | | | | | | |
| Min | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Max | 0.00E+00 | 0.00E+00 | 1.30E-06 | 3.60E-06 | 7.78E-07 | 3.07E-09 | 7.88E-16 | 0.00E+00 |
| Avg | 0.00E+00 | 0.00E+00 | 1.21E-09 | 1.79E-08 | 7.75E-09 | 4.64E-11 | 4.28E-17 | 0.00E+00 |
| Std | 0.00E+00 | 0.00E+00 | 3.50E-08 | 1.70E-07 | 5.20E-08 | 2.52E-10 | 8.59E-17 | 0.00E+00 |
| ALL | | | | | | | | |
| Min | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Max | 0.00E+00 | 0.00E+00 | 1.30E-06 | 3.60E-06 | 7.78E-07 | 3.07E-09 | 7.88E-16 | 0.00E+00 |
| Avg | 0.00E+00 | 0.00E+00 | 1.21E-09 | 1.79E-08 | 7.75E-09 | 4.64E-11 | 4.28E-17 | 0.00E+00 |
| Std | 0.00E+00 | 0.00E+00 | 3.50E-08 | 1.70E-07 | 5.20E-08 | 2.52E-10 | 8.59E-17 | 0.00E+00 |

ALL is total pathway dose summed for all nuclides.

Probabilistic results summary : RESRAD Default Parameters

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Probabilistic Dose vs Pathway(i): Radon (Water Ind.)

| Nuclide | DOSE(i,j,t), mrem/yr | | | | | | | |
|---------|----------------------|----------|----------|----------|----------|----------|----------|----------|
| | (j) t= 0.00E+00 | 1.00E+00 | 3.00E+00 | 1.00E+01 | 3.00E+01 | 1.00E+02 | 3.00E+02 | 1.00E+03 |
| Eu-154 | | | | | | | | |
| Min | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Max | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Avg | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Std | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| ALL | | | | | | | | |
| Min | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Max | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Avg | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Std | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

ALL is total pathway dose summed for all nuclides.

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Probabilistic Dose vs Pathway(i): Plant (Water Ind.)

| Nuclide | DOSE(i,j,t), mrem/yr | | | | | | | |
|---------|----------------------|----------|----------|----------|----------|----------|----------|----------|
| | t= 0.00E+00 | 1.00E+00 | 3.00E+00 | 1.00E+01 | 3.00E+01 | 1.00E+02 | 3.00E+02 | 1.00E+03 |
| Eu-154 | | | | | | | | |
| Min | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Max | 4.04E-03 | 3.90E-03 | 3.64E-03 | 2.35E-03 | 4.86E-04 | 1.96E-06 | 2.82E-13 | 0.00E+00 |
| Avg | 2.41E-03 | 2.23E-03 | 1.91E-03 | 1.11E-03 | 2.33E-04 | 9.92E-07 | 1.70E-13 | 0.00E+00 |
| Std | 1.41E-03 | 1.30E-03 | 1.11E-03 | 6.50E-04 | 1.38E-04 | 5.74E-07 | 9.30E-14 | 0.00E+00 |
| ALL | | | | | | | | |
| Min | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Max | 4.04E-03 | 3.90E-03 | 3.64E-03 | 2.35E-03 | 4.86E-04 | 1.96E-06 | 2.82E-13 | 0.00E+00 |
| Avg | 2.41E-03 | 2.23E-03 | 1.91E-03 | 1.11E-03 | 2.33E-04 | 9.92E-07 | 1.70E-13 | 0.00E+00 |
| Std | 1.41E-03 | 1.30E-03 | 1.11E-03 | 6.50E-04 | 1.38E-04 | 5.74E-07 | 9.30E-14 | 0.00E+00 |

ALL is total pathway dose summed for all nuclides.

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Probabilistic Dose vs Pathway(i): Meat (Water Ind.)

| Nuclide | DOSE(i,j,t), mrem/yr | | | | | | | |
|---------|----------------------|----------|----------|----------|----------|----------|----------|----------|
| | t= 0.00E+00 | 1.00E+00 | 3.00E+00 | 1.00E+01 | 3.00E+01 | 1.00E+02 | 3.00E+02 | 1.00E+03 |
| Eu-154 | | | | | | | | |
| Min | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Max | 1.78E-04 | 1.72E-04 | 3.93E-04 | 7.43E-04 | 1.54E-04 | 6.20E-07 | 8.93E-14 | 0.00E+00 |
| Avg | 1.07E-04 | 9.89E-05 | 8.51E-05 | 5.73E-05 | 1.38E-05 | 6.46E-08 | 2.61E-14 | 0.00E+00 |
| Std | 6.26E-05 | 5.77E-05 | 5.03E-05 | 7.92E-05 | 2.31E-05 | 1.10E-07 | 3.26E-14 | 0.00E+00 |
| ALL | | | | | | | | |
| Min | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Max | 1.78E-04 | 1.72E-04 | 3.93E-04 | 7.43E-04 | 1.54E-04 | 6.20E-07 | 8.93E-14 | 0.00E+00 |
| Avg | 1.07E-04 | 9.89E-05 | 8.51E-05 | 5.73E-05 | 1.38E-05 | 6.46E-08 | 2.61E-14 | 0.00E+00 |
| Std | 6.26E-05 | 5.77E-05 | 5.03E-05 | 7.92E-05 | 2.31E-05 | 1.10E-07 | 3.26E-14 | 0.00E+00 |

ALL is total pathway dose summed for all nuclides.

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Probabilistic Dose vs Pathway(i): Milk (Water Ind.)

| Nuclide | DOSE(i,j,t), mrem/yr | | | | | | | |
|---------|----------------------|----------|----------|----------|----------|----------|----------|----------|
| | t= 0.00E+00 | 1.00E+00 | 3.00E+00 | 1.00E+01 | 3.00E+01 | 1.00E+02 | 3.00E+02 | 1.00E+03 |
| Eu-154 | | | | | | | | |
| Min | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Max | 4.15E-05 | 4.01E-05 | 6.27E-05 | 8.80E-05 | 1.82E-05 | 7.34E-08 | 1.06E-14 | 0.00E+00 |
| Avg | 2.49E-05 | 2.30E-05 | 1.97E-05 | 1.23E-05 | 2.75E-06 | 1.23E-08 | 3.60E-15 | 0.00E+00 |
| Std | 1.46E-05 | 1.34E-05 | 1.15E-05 | 1.05E-05 | 2.82E-06 | 1.30E-08 | 3.65E-15 | 0.00E+00 |
| ALL | | | | | | | | |
| Min | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Max | 4.15E-05 | 4.01E-05 | 6.27E-05 | 8.80E-05 | 1.82E-05 | 7.34E-08 | 1.06E-14 | 0.00E+00 |
| Avg | 2.49E-05 | 2.30E-05 | 1.97E-05 | 1.23E-05 | 2.75E-06 | 1.23E-08 | 3.60E-15 | 0.00E+00 |
| Std | 1.46E-05 | 1.34E-05 | 1.15E-05 | 1.05E-05 | 2.82E-06 | 1.30E-08 | 3.65E-15 | 0.00E+00 |

ALL is total pathway dose summed for all nuclides.

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Probabilistic Dose vs Pathway(i): Soil Ingestion

| Nuclide | DOSE(i,j,t), mrem/yr | | | | | | | |
|---------|----------------------|----------|----------|----------|----------|----------|----------|----------|
| | t= 0.00E+00 | 1.00E+00 | 3.00E+00 | 1.00E+01 | 3.00E+01 | 1.00E+02 | 3.00E+02 | 1.00E+03 |
| Eu-154 | | | | | | | | |
| Min | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Max | 0.00E+00 | 0.00E+00 | 2.45E-05 | 5.96E-05 | 1.23E-05 | 4.97E-08 | 7.16E-15 | 0.00E+00 |
| Avg | 0.00E+00 | 0.00E+00 | 3.64E-08 | 7.49E-07 | 3.22E-07 | 1.92E-09 | 1.73E-15 | 0.00E+00 |
| Std | 0.00E+00 | 0.00E+00 | 8.69E-07 | 6.37E-06 | 1.92E-06 | 9.22E-09 | 2.80E-15 | 0.00E+00 |
| ALL | | | | | | | | |
| Min | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Max | 0.00E+00 | 0.00E+00 | 2.45E-05 | 5.96E-05 | 1.23E-05 | 4.97E-08 | 7.16E-15 | 0.00E+00 |
| Avg | 0.00E+00 | 0.00E+00 | 3.64E-08 | 7.49E-07 | 3.22E-07 | 1.92E-09 | 1.73E-15 | 0.00E+00 |
| Std | 0.00E+00 | 0.00E+00 | 8.69E-07 | 6.37E-06 | 1.92E-06 | 9.22E-09 | 2.80E-15 | 0.00E+00 |

ALL is total pathway dose summed for all nuclides.

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Probabilistic Dose vs Pathway(i): Water Ingestion

| Nuclide | DOSE(i,j,t), mrem/yr | | | | | | | |
|---------|----------------------|----------|----------|----------|----------|----------|----------|----------|
| | t= 0.00E+00 | 1.00E+00 | 3.00E+00 | 1.00E+01 | 3.00E+01 | 1.00E+02 | 3.00E+02 | 1.00E+03 |
| Eu-154 | | | | | | | | |
| Min | 4.45E-08 | 4.11E-08 | 3.51E-08 | 2.02E-08 | 4.19E-09 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Max | 1.27E+01 | 9.93E+00 | 6.07E+00 | 1.70E+00 | 1.35E-01 | 1.49E-04 | 7.82E-12 | 0.00E+00 |
| Avg | 2.30E-01 | 1.98E-01 | 1.49E-01 | 6.12E-02 | 7.45E-03 | 1.46E-05 | 9.99E-13 | 0.00E+00 |
| Std | 1.01E+00 | 8.21E-01 | 5.62E-01 | 1.84E-01 | 1.76E-02 | 2.73E-05 | 1.57E-12 | 0.00E+00 |
| ALL | | | | | | | | |
| Min | 4.45E-08 | 4.11E-08 | 3.51E-08 | 2.02E-08 | 4.19E-09 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Max | 1.27E+01 | 9.93E+00 | 6.07E+00 | 1.70E+00 | 1.35E-01 | 1.49E-04 | 7.82E-12 | 0.00E+00 |
| Avg | 2.30E-01 | 1.98E-01 | 1.49E-01 | 6.12E-02 | 7.45E-03 | 1.46E-05 | 9.99E-13 | 0.00E+00 |
| Std | 1.01E+00 | 8.21E-01 | 5.62E-01 | 1.84E-01 | 1.76E-02 | 2.73E-05 | 1.57E-12 | 0.00E+00 |

ALL is total pathway dose summed for all nuclides.

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Probabilistic Dose vs Pathway(i): Fish Ingestion

| Nuclide | DOSE(i,j,t), mrem/yr | | | | | | | |
|---------|----------------------|----------|----------|----------|----------|----------|----------|----------|
| | t= 0.00E+00 | 1.00E+00 | 3.00E+00 | 1.00E+01 | 3.00E+01 | 1.00E+02 | 3.00E+02 | 1.00E+03 |
| Eu-154 | | | | | | | | |
| Min | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Max | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Avg | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Std | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| ALL | | | | | | | | |
| Min | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Max | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Avg | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Std | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

ALL is total pathway dose summed for all nuclides.

Probabilistic results summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\BFM INSITU UNCERTAINTY ANALYSIS\FCS BFM INSITU UA EU-154.RAD

Probabilistic Dose vs Pathway(i): Radon (Water Dep.)

| Nuclide | DOSE(i,j,t), mrem/yr | | | | | | | |
|---------|----------------------|----------|----------|----------|----------|----------|----------|----------|
| | t= 0.00E+00 | 1.00E+00 | 3.00E+00 | 1.00E+01 | 3.00E+01 | 1.00E+02 | 3.00E+02 | 1.00E+03 |
| Eu-154 | | | | | | | | |
| Min | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Max | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Avg | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Std | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| ALL | | | | | | | | |
| Min | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Max | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Avg | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Std | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

ALL is total pathway dose summed for all nuclides.

Probabilistic results summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\BFM INSITU UNCERTAINTY ANALYSIS\FCS BFM INSITU UA EU-154.RAD

Probabilistic Dose vs Pathway(i): Plant (Water Dep.)

| Nuclide | DOSE(i,j,t), mrem/yr | | | | | | | |
|---------|----------------------|----------|----------|----------|----------|----------|----------|----------|
| | t= 0.00E+00 | 1.00E+00 | 3.00E+00 | 1.00E+01 | 3.00E+01 | 1.00E+02 | 3.00E+02 | 1.00E+03 |
| Eu-154 | | | | | | | | |
| Min | 7.40E-09 | 6.84E-09 | 5.84E-09 | 3.37E-09 | 6.97E-10 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Max | 1.42E+00 | 1.23E+00 | 9.22E-01 | 3.36E-01 | 2.10E-02 | 3.11E-05 | 2.47E-12 | 0.00E+00 |
| Avg | 2.04E-02 | 1.77E-02 | 1.35E-02 | 5.61E-03 | 6.72E-04 | 1.30E-06 | 9.08E-14 | 0.00E+00 |
| Std | 9.46E-02 | 7.97E-02 | 5.73E-02 | 2.04E-02 | 1.83E-03 | 2.87E-06 | 1.82E-13 | 0.00E+00 |
| ALL | | | | | | | | |
| Min | 7.40E-09 | 6.84E-09 | 5.84E-09 | 3.37E-09 | 6.97E-10 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Max | 1.42E+00 | 1.23E+00 | 9.22E-01 | 3.36E-01 | 2.10E-02 | 3.11E-05 | 2.47E-12 | 0.00E+00 |
| Avg | 2.04E-02 | 1.77E-02 | 1.35E-02 | 5.61E-03 | 6.72E-04 | 1.30E-06 | 9.08E-14 | 0.00E+00 |
| Std | 9.46E-02 | 7.97E-02 | 5.73E-02 | 2.04E-02 | 1.83E-03 | 2.87E-06 | 1.82E-13 | 0.00E+00 |

ALL is total pathway dose summed for all nuclides.

Probabilistic results summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\BFM INSITU UNCERTAINTY ANALYSIS\FCS BFM INSITU UA EU-154.RAD

Probabilistic Dose vs Pathway(i): Meat (Water Dep.)

| Nuclide | DOSE(i,j,t), mrem/yr | | | | | | | |
|---------|----------------------|----------|----------|----------|----------|----------|----------|----------|
| | t= 0.00E+00 | 1.00E+00 | 3.00E+00 | 1.00E+01 | 3.00E+01 | 1.00E+02 | 3.00E+02 | 1.00E+03 |
| Eu-154 | | | | | | | | |
| Min | 1.75E-09 | 1.62E-09 | 1.38E-09 | 7.96E-10 | 1.65E-10 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Max | 4.30E-01 | 3.37E-01 | 2.06E-01 | 7.35E-02 | 4.55E-03 | 6.26E-06 | 3.65E-13 | 0.00E+00 |
| Avg | 8.40E-03 | 7.26E-03 | 5.48E-03 | 2.25E-03 | 2.71E-04 | 5.26E-07 | 3.61E-14 | 0.00E+00 |
| Std | 3.63E-02 | 3.00E-02 | 2.08E-02 | 7.00E-03 | 6.45E-04 | 9.85E-07 | 5.76E-14 | 0.00E+00 |
| ALL | | | | | | | | |
| Min | 1.75E-09 | 1.62E-09 | 1.38E-09 | 7.96E-10 | 1.65E-10 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Max | 4.30E-01 | 3.37E-01 | 2.06E-01 | 7.35E-02 | 4.55E-03 | 6.26E-06 | 3.65E-13 | 0.00E+00 |
| Avg | 8.40E-03 | 7.26E-03 | 5.48E-03 | 2.25E-03 | 2.71E-04 | 5.26E-07 | 3.61E-14 | 0.00E+00 |
| Std | 3.63E-02 | 3.00E-02 | 2.08E-02 | 7.00E-03 | 6.45E-04 | 9.85E-07 | 5.76E-14 | 0.00E+00 |

ALL is total pathway dose summed for all nuclides.

Probabilistic results summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\BFM INSITU UNCERTAINTY ANALYSIS\FCS BFM INSITU UA EU-154.RAD

Probabilistic Dose vs Pathway(i): Milk (Water Dep.)

| Nuclide | DOSE(i,j,t), mrem/yr | | | | | | | |
|---------|----------------------|----------|----------|----------|----------|----------|----------|----------|
| | t= 0.00E+00 | 1.00E+00 | 3.00E+00 | 1.00E+01 | 3.00E+01 | 1.00E+02 | 3.00E+02 | 1.00E+03 |
| Eu-154 | | | | | | | | |
| Min | 2.89E-10 | 2.67E-10 | 2.28E-10 | 1.31E-10 | 2.72E-11 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Max | 6.56E-02 | 5.13E-02 | 3.46E-02 | 1.25E-02 | 7.76E-04 | 1.11E-06 | 6.51E-14 | 0.00E+00 |
| Avg | 1.34E-03 | 1.16E-03 | 8.75E-04 | 3.61E-04 | 4.32E-05 | 8.36E-08 | 5.75E-15 | 0.00E+00 |
| Std | 5.77E-03 | 4.79E-03 | 3.36E-03 | 1.14E-03 | 1.04E-04 | 1.58E-07 | 9.33E-15 | 0.00E+00 |
| ALL | | | | | | | | |
| Min | 2.89E-10 | 2.67E-10 | 2.28E-10 | 1.31E-10 | 2.72E-11 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Max | 6.56E-02 | 5.13E-02 | 3.46E-02 | 1.25E-02 | 7.76E-04 | 1.11E-06 | 6.51E-14 | 0.00E+00 |
| Avg | 1.34E-03 | 1.16E-03 | 8.75E-04 | 3.61E-04 | 4.32E-05 | 8.36E-08 | 5.75E-15 | 0.00E+00 |
| Std | 5.77E-03 | 4.79E-03 | 3.36E-03 | 1.14E-03 | 1.04E-04 | 1.58E-07 | 9.33E-15 | 0.00E+00 |

ALL is total pathway dose summed for all nuclides.

Probabilistic results summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\BFM INSITU UNCERTAINTY ANALYSIS\FCS BFM INSITU UA EU-154.RAD

Cumulative Probability Summary for: Total Dose Over Pathways

| Cumulative Probability | Dose(t), mrem/yr | | | | | | | |
|------------------------|------------------|----------|----------|----------|----------|----------|----------|----------|
| | t= 0.00E+00 | 1.00E+00 | 3.00E+00 | 1.00E+01 | 3.00E+01 | 1.00E+02 | 3.00E+02 | 1.00E+03 |
| 0.025 | 2.07E-04 | 1.92E-04 | 1.64E-04 | 1.07E-04 | 2.73E-05 | 1.41E-07 | 6.02E-16 | 0.00E+00 |
| 0.050 | 6.79E-04 | 6.38E-04 | 5.49E-04 | 3.30E-04 | 7.62E-05 | 4.49E-07 | 3.71E-14 | 0.00E+00 |
| 0.075 | 1.44E-03 | 1.35E-03 | 1.17E-03 | 7.12E-04 | 1.63E-04 | 8.64E-07 | 1.34E-13 | 0.00E+00 |
| 0.100 | 1.98E-03 | 1.85E-03 | 1.61E-03 | 9.81E-04 | 2.19E-04 | 1.11E-06 | 1.99E-13 | 0.00E+00 |
| 0.125 | 2.44E-03 | 2.26E-03 | 1.95E-03 | 1.16E-03 | 2.62E-04 | 1.38E-06 | 2.25E-13 | 0.00E+00 |
| 0.150 | 3.01E-03 | 2.79E-03 | 2.45E-03 | 1.44E-03 | 3.14E-04 | 1.50E-06 | 2.49E-13 | 0.00E+00 |
| 0.175 | 3.46E-03 | 3.20E-03 | 2.77E-03 | 1.64E-03 | 3.50E-04 | 1.59E-06 | 2.89E-13 | 0.00E+00 |
| 0.200 | 3.71E-03 | 3.44E-03 | 2.96E-03 | 1.73E-03 | 3.69E-04 | 1.66E-06 | 3.36E-13 | 0.00E+00 |
| 0.225 | 3.91E-03 | 3.63E-03 | 3.11E-03 | 1.82E-03 | 3.85E-04 | 1.73E-06 | 3.81E-13 | 0.00E+00 |
| 0.250 | 4.06E-03 | 3.77E-03 | 3.23E-03 | 1.89E-03 | 4.00E-04 | 1.81E-06 | 4.65E-13 | 0.00E+00 |
| 0.275 | 4.19E-03 | 3.89E-03 | 3.33E-03 | 1.93E-03 | 4.13E-04 | 1.92E-06 | 5.28E-13 | 0.00E+00 |
| 0.300 | 4.27E-03 | 3.96E-03 | 3.40E-03 | 1.98E-03 | 4.22E-04 | 2.09E-06 | 6.43E-13 | 0.00E+00 |
| 0.325 | 4.39E-03 | 4.07E-03 | 3.50E-03 | 2.05E-03 | 4.42E-04 | 2.26E-06 | 7.97E-13 | 0.00E+00 |
| 0.350 | 4.59E-03 | 4.26E-03 | 3.71E-03 | 2.18E-03 | 4.69E-04 | 2.45E-06 | 9.64E-13 | 0.00E+00 |
| 0.375 | 4.92E-03 | 4.58E-03 | 3.96E-03 | 2.33E-03 | 5.06E-04 | 2.75E-06 | 1.13E-12 | 0.00E+00 |
| 0.400 | 5.39E-03 | 5.01E-03 | 4.43E-03 | 2.63E-03 | 5.69E-04 | 2.99E-06 | 1.32E-12 | 0.00E+00 |
| 0.425 | 6.09E-03 | 5.64E-03 | 4.94E-03 | 2.92E-03 | 6.34E-04 | 3.33E-06 | 1.64E-12 | 0.00E+00 |
| 0.450 | 6.79E-03 | 6.29E-03 | 5.46E-03 | 3.27E-03 | 7.28E-04 | 3.71E-06 | 1.90E-12 | 0.00E+00 |
| 0.475 | 7.85E-03 | 7.25E-03 | 6.31E-03 | 3.79E-03 | 8.15E-04 | 4.07E-06 | 2.21E-12 | 0.00E+00 |
| 0.500 | 8.66E-03 | 8.00E-03 | 6.95E-03 | 4.14E-03 | 8.85E-04 | 4.74E-06 | 2.75E-12 | 0.00E+00 |
| 0.525 | 9.98E-03 | 9.23E-03 | 8.09E-03 | 4.86E-03 | 1.09E-03 | 5.30E-06 | 3.20E-12 | 0.00E+00 |
| 0.550 | 1.18E-02 | 1.09E-02 | 9.51E-03 | 5.77E-03 | 1.24E-03 | 5.81E-06 | 3.63E-12 | 0.00E+00 |
| 0.575 | 1.36E-02 | 1.26E-02 | 1.10E-02 | 6.62E-03 | 1.43E-03 | 6.79E-06 | 4.19E-12 | 0.00E+00 |
| 0.600 | 1.62E-02 | 1.50E-02 | 1.32E-02 | 8.05E-03 | 1.75E-03 | 7.67E-06 | 4.77E-12 | 0.00E+00 |
| 0.625 | 1.95E-02 | 1.80E-02 | 1.57E-02 | 9.62E-03 | 2.10E-03 | 8.75E-06 | 5.68E-12 | 0.00E+00 |
| 0.650 | 2.31E-02 | 2.13E-02 | 1.87E-02 | 1.22E-02 | 2.61E-03 | 1.09E-05 | 7.01E-12 | 0.00E+00 |
| 0.675 | 2.94E-02 | 2.72E-02 | 2.38E-02 | 1.44E-02 | 3.12E-03 | 1.25E-05 | 8.97E-12 | 0.00E+00 |
| 0.700 | 3.56E-02 | 3.29E-02 | 2.85E-02 | 1.79E-02 | 3.86E-03 | 1.50E-05 | 1.36E-11 | 0.00E+00 |
| 0.725 | 4.36E-02 | 4.03E-02 | 3.50E-02 | 2.24E-02 | 4.92E-03 | 1.83E-05 | 2.44E-11 | 0.00E+00 |
| 0.750 | 5.59E-02 | 5.16E-02 | 4.44E-02 | 2.85E-02 | 6.27E-03 | 2.33E-05 | 5.02E-11 | 0.00E+00 |
| 0.775 | 6.90E-02 | 6.37E-02 | 5.54E-02 | 3.63E-02 | 8.04E-03 | 2.81E-05 | 8.41E-11 | 0.00E+00 |
| 0.800 | 9.07E-02 | 8.38E-02 | 7.29E-02 | 4.87E-02 | 1.05E-02 | 3.56E-05 | 1.26E-10 | 0.00E+00 |
| 0.825 | 1.23E-01 | 1.13E-01 | 9.72E-02 | 6.72E-02 | 1.45E-02 | 4.45E-05 | 1.58E-10 | 0.00E+00 |
| 0.850 | 1.74E-01 | 1.60E-01 | 1.37E-01 | 9.23E-02 | 1.94E-02 | 5.71E-05 | 1.76E-10 | 0.00E+00 |
| 0.875 | 2.40E-01 | 2.21E-01 | 1.90E-01 | 1.32E-01 | 2.67E-02 | 7.15E-05 | 1.81E-10 | 0.00E+00 |
| 0.900 | 3.57E-01 | 3.29E-01 | 2.79E-01 | 2.02E-01 | 4.04E-02 | 8.31E-05 | 1.84E-10 | 0.00E+00 |
| 0.925 | 5.95E-01 | 5.44E-01 | 4.56E-01 | 3.31E-01 | 5.72E-02 | 1.05E-04 | 1.84E-10 | 0.00E+00 |
| 0.950 | 1.11E+00 | 1.01E+00 | 8.45E-01 | 5.62E-01 | 7.58E-02 | 1.47E-04 | 1.85E-10 | 0.00E+00 |
| 0.975 | 2.77E+00 | 2.44E+00 | 1.93E+00 | 1.04E+00 | 3.03E-01 | 1.27E-03 | 1.85E-10 | 0.00E+00 |
| 1.000 | 1.44E+01 | 1.12E+01 | 6.88E+00 | 1.88E+00 | 3.30E-01 | 1.29E-03 | 1.85E-10 | 0.00E+00 |

Probabilistic results summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\BFM INSITU UNCERTAINTY ANALYSIS\FCS BFM INSITU UA EU-154.RAD

Summary of dose at graphical times, reptition 1

| Time Years | Dose statistics at graphical times, mrem/yr | | | | | | | |
|---------------|---|----------|----------|----------|----------|----------|----------|----------|
| | Minimum | Maximum | Mean | Median | 90% | 95% | 97.5% | 99% |
| 0.00E+00 | 4.67E-05 | 1.20E+01 | 2.57E-01 | 8.76E-03 | 3.76E-01 | 1.11E+00 | 2.88E+00 | 6.73E+00 |
| 1.00E+00 | 4.40E-05 | 9.49E+00 | 2.22E-01 | 8.10E-03 | 3.47E-01 | 1.02E+00 | 2.56E+00 | 5.82E+00 |
| 1.06E+00 | 4.38E-05 | 9.37E+00 | 2.20E-01 | 8.06E-03 | 3.45E-01 | 1.01E+00 | 2.54E+00 | 5.77E+00 |
| 1.12E+00 | 4.36E-05 | 9.23E+00 | 2.18E-01 | 8.03E-03 | 3.43E-01 | 1.00E+00 | 2.52E+00 | 5.72E+00 |
| 1.19E+00 | 4.34E-05 | 9.09E+00 | 2.16E-01 | 7.99E-03 | 3.42E-01 | 9.98E-01 | 2.50E+00 | 5.67E+00 |
| 1.25E+00 | 4.31E-05 | 8.95E+00 | 2.14E-01 | 7.94E-03 | 3.40E-01 | 9.92E-01 | 2.48E+00 | 5.61E+00 |
| 1.33E+00 | 4.29E-05 | 8.80E+00 | 2.12E-01 | 7.90E-03 | 3.38E-01 | 9.85E-01 | 2.46E+00 | 5.55E+00 |
| 1.40E+00 | 4.26E-05 | 8.64E+00 | 2.10E-01 | 7.85E-03 | 3.35E-01 | 9.78E-01 | 2.44E+00 | 5.49E+00 |
| 1.49E+00 | 4.24E-05 | 8.48E+00 | 2.07E-01 | 7.80E-03 | 3.33E-01 | 9.71E-01 | 2.41E+00 | 5.43E+00 |
| 1.57E+00 | 4.21E-05 | 8.31E+00 | 2.05E-01 | 7.75E-03 | 3.31E-01 | 9.63E-01 | 2.38E+00 | 5.36E+00 |
| 1.66E+00 | 4.18E-05 | 8.14E+00 | 2.02E-01 | 7.69E-03 | 3.28E-01 | 9.55E-01 | 2.36E+00 | 5.29E+00 |
| 1.76E+00 | 4.15E-05 | 7.95E+00 | 1.99E-01 | 7.63E-03 | 3.26E-01 | 9.46E-01 | 2.33E+00 | 5.22E+00 |
| 1.86E+00 | 4.11E-05 | 7.77E+00 | 1.96E-01 | 7.57E-03 | 3.23E-01 | 9.37E-01 | 2.30E+00 | 5.14E+00 |
| 1.97E+00 | 4.08E-05 | 7.57E+00 | 1.93E-01 | 7.55E-03 | 3.20E-01 | 9.28E-01 | 2.26E+00 | 5.05E+00 |
| 2.09E+00 | 4.04E-05 | 7.37E+00 | 1.90E-01 | 7.49E-03 | 3.17E-01 | 9.18E-01 | 2.23E+00 | 4.93E+00 |
| 2.21E+00 | 4.00E-05 | 7.17E+00 | 1.87E-01 | 7.42E-03 | 3.14E-01 | 9.08E-01 | 2.20E+00 | 4.80E+00 |
| 2.34E+00 | 3.96E-05 | 6.96E+00 | 1.84E-01 | 7.34E-03 | 3.11E-01 | 8.97E-01 | 2.16E+00 | 4.67E+00 |
| 2.47E+00 | 3.92E-05 | 6.74E+00 | 1.80E-01 | 7.31E-03 | 3.07E-01 | 8.86E-01 | 2.12E+00 | 4.54E+00 |
| 2.62E+00 | 3.88E-05 | 6.52E+00 | 1.77E-01 | 7.23E-03 | 3.04E-01 | 8.74E-01 | 2.08E+00 | 4.40E+00 |
| 2.77E+00 | 3.83E-05 | 6.29E+00 | 1.73E-01 | 7.21E-03 | 3.00E-01 | 8.61E-01 | 2.04E+00 | 4.26E+00 |
| 2.93E+00 | 3.78E-05 | 6.06E+00 | 1.69E-01 | 7.13E-03 | 2.96E-01 | 8.49E-01 | 2.00E+00 | 4.11E+00 |
| 3.00E+00 | 3.76E-05 | 5.97E+00 | 1.68E-01 | 7.09E-03 | 2.94E-01 | 8.43E-01 | 1.99E+00 | 4.05E+00 |
| 3.310E+00 | 3.73E-05 | 5.82E+00 | 1.66E-01 | 7.04E-03 | 2.92E-01 | 8.35E-01 | 1.96E+00 | 3.97E+00 |
| 3.328E+00 | 3.68E-05 | 5.59E+00 | 1.62E-01 | 6.94E-03 | 2.91E-01 | 8.21E-01 | 1.91E+00 | 3.82E+00 |
| 3.48E+00 | 3.62E-05 | 5.34E+00 | 1.58E-01 | 6.83E-03 | 2.86E-01 | 8.07E-01 | 1.87E+00 | 3.66E+00 |
| 3.68E+00 | 3.57E-05 | 5.10E+00 | 1.54E-01 | 6.73E-03 | 2.81E-01 | 7.92E-01 | 1.82E+00 | 3.45E+00 |
| 3.89E+00 | 3.51E-05 | 4.85E+00 | 1.51E-01 | 6.61E-03 | 2.76E-01 | 8.08E-01 | 1.77E+00 | 3.24E+00 |
| 4.12E+00 | 3.44E-05 | 4.60E+00 | 1.48E-01 | 6.50E-03 | 2.71E-01 | 7.91E-01 | 1.72E+00 | 3.04E+00 |
| 4.36E+00 | 3.38E-05 | 4.35E+00 | 1.44E-01 | 6.38E-03 | 2.82E-01 | 7.74E-01 | 1.81E+00 | 2.84E+00 |
| 4.61E+00 | 3.31E-05 | 4.10E+00 | 1.41E-01 | 6.25E-03 | 2.76E-01 | 7.57E-01 | 1.75E+00 | 2.65E+00 |
| 4.88E+00 | 3.24E-05 | 3.85E+00 | 1.37E-01 | 6.12E-03 | 2.73E-01 | 7.90E-01 | 1.70E+00 | 2.52E+00 |
| 5.17E+00 | 3.17E-05 | 3.61E+00 | 1.34E-01 | 6.06E-03 | 2.67E-01 | 7.68E-01 | 1.64E+00 | 2.39E+00 |
| 5.547E+00 | 3.10E-05 | 3.36E+00 | 1.31E-01 | 5.93E-03 | 2.60E-01 | 7.97E-01 | 1.72E+00 | 2.26E+00 |
| 5.578E+00 | 3.02E-05 | 3.12E+00 | 1.28E-01 | 5.78E-03 | 2.53E-01 | 7.74E-01 | 1.67E+00 | 2.18E+00 |
| 6.12E+00 | 2.94E-05 | 2.92E+00 | 1.24E-01 | 5.63E-03 | 2.70E-01 | 7.50E-01 | 1.69E+00 | 2.09E+00 |
| 6.48E+00 | 2.86E-05 | 2.73E+00 | 1.20E-01 | 5.47E-03 | 2.65E-01 | 7.26E-01 | 1.57E+00 | 2.04E+00 |
| 6.86E+00 | 2.78E-05 | 2.54E+00 | 1.16E-01 | 5.36E-03 | 2.61E-01 | 7.33E-01 | 1.47E+00 | 1.98E+00 |
| 7.26E+00 | 2.69E-05 | 2.36E+00 | 1.12E-01 | 5.20E-03 | 2.52E-01 | 7.05E-01 | 1.48E+00 | 1.92E+00 |
| 7.68E+00 | 2.60E-05 | 2.22E+00 | 1.08E-01 | 5.10E-03 | 2.44E-01 | 7.01E-01 | 1.39E+00 | 1.85E+00 |
| 8.13E+00 | 2.51E-05 | 2.08E+00 | 1.04E-01 | 4.92E-03 | 2.37E-01 | 6.70E-01 | 1.33E+00 | 1.79E+00 |
| 8.60E+00 | 2.42E-05 | 1.95E+00 | 9.92E-02 | 4.74E-03 | 2.28E-01 | 6.36E-01 | 1.23E+00 | 1.72E+00 |
| 9.10E+00 | 2.33E-05 | 1.81E+00 | 9.43E-02 | 4.56E-03 | 2.18E-01 | 6.02E-01 | 1.14E+00 | 1.66E+00 |
| 9.63E+00 | 2.23E-05 | 1.68E+00 | 8.99E-02 | 4.37E-03 | 2.15E-01 | 5.82E-01 | 1.05E+00 | 1.59E+00 |
| 1.00E+01 | 2.17E-05 | 1.59E+00 | 8.72E-02 | 4.24E-03 | 2.08E-01 | 5.58E-01 | 1.02E+00 | 1.54E+00 |
| 1.02E+01 | 2.14E-05 | 1.55E+00 | 8.59E-02 | 4.18E-03 | 2.05E-01 | 5.33E-01 | 9.95E-01 | 1.52E+00 |
| 1.08E+01 | 2.04E-05 | 1.47E+00 | 8.16E-02 | 3.99E-03 | 1.95E-01 | 5.20E-01 | 9.28E-01 | 1.45E+00 |
| 1.14E+01 | 1.94E-05 | 1.40E+00 | 7.74E-02 | 3.80E-03 | 1.88E-01 | 4.90E-01 | 8.62E-01 | 1.38E+00 |
| 1.21E+01 | 1.84E-05 | 1.33E+00 | 7.29E-02 | 3.60E-03 | 1.78E-01 | 4.60E-01 | 7.98E-01 | 1.31E+00 |
| 1.28E+01 | 1.74E-05 | 1.25E+00 | 6.84E-02 | 3.41E-03 | 1.68E-01 | 4.63E-01 | 7.31E-01 | 1.24E+00 |
| 1.35E+01 | 1.65E-05 | 1.18E+00 | 6.43E-02 | 3.22E-03 | 1.58E-01 | 4.23E-01 | 6.73E-01 | 1.17E+00 |
| 1.43E+01 | 1.55E-05 | 1.11E+00 | 6.00E-02 | 3.02E-03 | 1.51E-01 | 3.71E-01 | 6.13E-01 | 1.10E+00 |
| 1.51E+01 | 1.45E-05 | 1.04E+00 | 5.56E-02 | 2.83E-03 | 1.41E-01 | 3.43E-01 | 5.43E-01 | 1.03E+00 |
| 1.60E+01 | 1.35E-05 | 9.71E-01 | 5.18E-02 | 2.64E-03 | 1.31E-01 | 3.15E-01 | 5.01E-01 | 9.60E-01 |
| 1.70E+01 | 1.26E-05 | 9.00E-01 | 4.85E-02 | 2.50E-03 | 1.21E-01 | 2.88E-01 | 5.22E-01 | 8.92E-01 |
| 1.80E+01 | 1.16E-05 | 8.31E-01 | 4.48E-02 | 2.32E-03 | 1.11E-01 | 2.59E-01 | 4.60E-01 | 8.25E-01 |
| 1.90E+01 | 1.07E-05 | 7.64E-01 | 4.07E-02 | 2.13E-03 | 1.05E-01 | 2.31E-01 | 4.02E-01 | 7.60E-01 |

2.01E+01 9.81E-06 6.99E-01 3.69E-02 2.01E-03 9.48E-02 2.06E-01 3.49E-01 6.96E-01

2.13E+01 8.95E-06 6.37E-01 3.34E-02 1.83E-03 8.52E-02 1.81E-01 3.16E-01 6.35E-01

2.25E+01 8.12E-06 5.77E-01 3.05E-02 1.66E-03 7.61E-02 1.56E-01 2.95E-01 5.76E-01

2.38E+01 7.32E-06 5.20E-01 2.74E-02 1.50E-03 6.80E-02 1.42E-01 2.56E-01 5.19E-01

2.52E+01 6.57E-06 4.66E-01 2.47E-02 1.35E-03 5.99E-02 1.21E-01 3.09E-01 4.66E-01

2.67E+01 5.85E-06 4.15E-01 2.20E-02 1.23E-03 5.31E-02 1.02E-01 3.34E-01 4.15E-01

2.82E+01 5.18E-06 3.67E-01 1.95E-02 1.09E-03 4.67E-02 8.89E-02 3.61E-01 3.67E-01

2.99E+01 4.55E-06 3.22E-01 1.69E-02 9.56E-04 4.02E-02 7.66E-02 3.16E-01 3.22E-01

3.00E+01 4.51E-06 3.19E-01 1.67E-02 9.47E-04 3.98E-02 7.58E-02 3.13E-01 3.19E-01

3.16E+01 3.97E-06 2.81E-01 1.46E-02 8.35E-04 3.52E-02 6.54E-02 2.75E-01 2.81E-01

3.35E+01 3.43E-06 2.43E-01 1.26E-02 7.29E-04 2.98E-02 5.47E-02 2.37E-01 2.43E-01

3.54E+01 2.95E-06 2.08E-01 1.08E-02 6.26E-04 2.53E-02 4.49E-02 2.02E-01 2.08E-01

3.75E+01 2.51E-06 1.77E-01 9.20E-03 5.32E-04 2.08E-02 3.74E-02 1.71E-01 1.77E-01

3.97E+01 2.11E-06 1.49E-01 7.73E-03 4.49E-04 1.78E-02 3.06E-02 1.46E-01 1.49E-01

4.20E+01 1.76E-06 1.24E-01 6.40E-03 3.74E-04 1.44E-02 2.49E-02 1.21E-01 1.24E-01

4.44E+01 1.45E-06 1.03E-01 5.27E-03 3.09E-04 1.14E-02 2.04E-02 9.95E-02 1.03E-01

4.70E+01 1.19E-06 8.37E-02 4.33E-03 2.52E-04 8.70E-03 1.62E-02 8.19E-02 8.37E-02

4.97E+01 9.56E-07 6.74E-02 3.48E-03 2.03E-04 6.75E-03 1.24E-02 6.58E-02 6.74E-02

5.26E+01 7.61E-07 5.37E-02 2.77E-03 1.62E-04 5.18E-03 9.18E-03 5.22E-02 5.37E-02

5.57E+01 5.98E-07 4.22E-02 2.16E-03 1.28E-04 3.97E-03 6.90E-03 4.09E-02 4.22E-02

5.90E+01 4.21E-07 3.27E-02 1.67E-03 9.92E-05 3.04E-03 5.24E-03 3.16E-02 3.26E-02

6.24E+01 1.56E-07 2.49E-02 1.28E-03 7.59E-05 2.18E-03 3.91E-03 2.40E-02 2.49E-02

60E+01 5.49E-08 1.87E-02 9.78E-04 5.70E-05 1.61E-03 2.88E-03 1.83E-02 1.87E-02

99E+01 1.81E-08 1.38E-02 7.30E-04 4.24E-05 1.14E-03 2.03E-03 1.36E-02 1.38E-02

7.39E+01 5.62E-09 1.00E-02 5.31E-04 3.09E-05 8.11E-04 1.41E-03 9.89E-03 1.00E-02

7.82E+01 1.62E-09 7.15E-03 3.79E-04 2.24E-05 5.69E-04 9.75E-04 7.09E-03 7.14E-03

8.28E+01 4.37E-10 4.99E-03 2.63E-04 1.58E-05 3.90E-04 6.64E-04 4.95E-03 4.99E-03

8.76E+01 1.09E-10 3.41E-03 1.80E-04 1.14E-05 2.56E-04 4.43E-04 3.38E-03 3.41E-03

9.27E+01 2.50E-11 2.28E-03 1.21E-04 7.73E-06 1.58E-04 2.97E-04 2.26E-03 2.28E-03

9.81E+01 5.28E-12 1.49E-03 7.92E-05 5.16E-06 1.01E-04 1.86E-04 1.48E-03 1.49E-03

1.00E+02 3.08E-12 1.29E-03 6.83E-05 4.47E-06 8.62E-05 1.60E-04 1.27E-03 1.29E-03

1.04E+02 1.02E-12 9.51E-04 5.05E-05 3.46E-06 6.23E-05 1.16E-04 9.41E-04 9.51E-04

1.10E+02 1.78E-13 5.90E-04 3.17E-05 2.22E-06 3.82E-05 6.87E-05 5.84E-04 5.90E-04

1.16E+02 2.82E-14 3.57E-04 1.93E-05 1.48E-06 2.19E-05 4.02E-05 3.54E-04 3.56E-04

1.23E+02 4.01E-15 2.09E-04 1.15E-05 9.07E-07 1.26E-05 2.27E-05 2.08E-04 2.09E-04

1.30E+02 5.08E-16 1.19E-04 6.61E-06 5.42E-07 6.95E-06 1.25E-05 1.18E-04 1.19E-04

1.38E+02 5.71E-17 6.54E-05 3.72E-06 3.35E-07 3.78E-06 6.60E-06 6.48E-05 6.54E-05

1.46E+02 5.65E-18 3.48E-05 2.00E-06 1.87E-07 2.13E-06 3.41E-06 3.45E-05 3.47E-05

1.54E+02 4.89E-19 1.78E-05 1.06E-06 9.92E-08 1.27E-06 2.82E-06 1.77E-05 1.78E-05

1.63E+02 3.67E-20 8.76E-06 5.48E-07 5.42E-08 7.28E-07 2.25E-06 8.71E-06 8.76E-06

1.73E+02 2.37E-21 4.14E-06 2.85E-07 2.70E-08 4.46E-07 1.78E-06 4.11E-06 4.14E-06

1.83E+02 1.30E-22 1.87E-06 1.51E-07 1.28E-08 3.08E-07 1.33E-06 1.86E-06 1.87E-06

1.94E+02 6.05E-24 8.09E-07 7.92E-08 6.37E-09 2.27E-07 7.56E-07 8.06E-07 8.09E-07

2.05E+02 2.35E-25 3.33E-07 3.80E-08 2.85E-09 1.60E-07 3.25E-07 3.32E-07 3.33E-07

2.17E+02 7.55E-27 1.30E-07 1.71E-08 1.20E-09 9.03E-08 1.28E-07 1.30E-07 1.30E-07

2.29E+02 1.98E-28 4.81E-08 7.18E-09 4.77E-10 4.08E-08 4.76E-08 4.80E-08 4.81E-08

2.43E+02 3.89E-30 1.68E-08 2.81E-09 1.81E-10 1.61E-08 1.67E-08 1.68E-08 1.68E-08

2.57E+02 0.00E+00 5.51E-09 1.02E-09 6.53E-11 5.38E-09 5.49E-09 5.51E-09 5.51E-09

2.72E+02 0.00E+00 1.69E-09 3.39E-10 2.16E-11 1.66E-09 1.69E-09 1.69E-09 1.69E-09

2.88E+02 0.00E+00 4.87E-10 1.05E-10 6.51E-12 4.80E-10 4.86E-10 4.86E-10 4.87E-10

3.00E+02 0.00E+00 1.85E-10 4.21E-11 2.64E-12 1.84E-10 1.85E-10 1.85E-10 1.85E-10

3.05E+02 0.00E+00 1.30E-10 2.99E-11 1.89E-12 1.29E-10 1.30E-10 1.30E-10 1.30E-10

3.22E+02 0.00E+00 3.21E-11 7.87E-12 5.15E-13 3.19E-11 3.21E-11 3.21E-11 3.21E-11

3.41E+02 0.00E+00 7.32E-12 1.91E-12 1.21E-13 7.27E-12 7.31E-12 7.32E-12 7.32E-12

3.61E+02 0.00E+00 1.53E-12 4.26E-13 2.73E-14 1.52E-12 1.53E-12 1.53E-12 1.53E-12

3.82E+02 0.00E+00 2.92E-13 8.59E-14 5.47E-15 2.91E-13 2.92E-13 2.92E-13 2.92E-13

4.04E+02 0.00E+00 5.07E-14 1.57E-14 1.04E-15 5.04E-14 5.06E-14 5.07E-14 5.07E-14

4.28E+02 0.00E+00 7.93E-15 2.56E-15 1.87E-16 7.90E-15 7.93E-15 7.93E-15 7.93E-15

4.53E+02 0.00E+00 1.11E-15 3.73E-16 2.94E-17 1.11E-15 1.11E-15 1.11E-15 1.11E-15

4.79E+02 0.00E+00 1.40E-16 4.86E-17 4.16E-18 1.39E-16 1.40E-16 1.40E-16 1.40E-16

5.07E+02 0.00E+00 1.55E-17 5.61E-18 6.33E-19 1.55E-17 1.55E-17 1.55E-17 1.55E-17

5.36E+02 0.00E+00 1.52E-18 5.64E-19 8.43E-20 1.51E-18 1.51E-18 1.52E-18 1.52E-18

5.68E+02 0.00E+00 1.29E-19 4.97E-20 8.83E-21 1.29E-19 1.29E-19 1.29E-19 1.29E-19

0.01E+02 0.00E+00 9.56E-21 3.80E-21 9.00E-22 9.53E-21 9.55E-21 9.56E-21 9.56E-21

6.36E+02 0.00E+00 6.07E-22 2.50E-22 7.97E-23 6.05E-22 6.07E-22 6.07E-22 6.07E-22

6.73E+02 0.00E+00 3.28E-23 1.39E-23 4.54E-24 3.27E-23 3.28E-23 3.28E-23 3.28E-23

7.12E+02 0.00E+00 1.50E-24 6.52E-25 3.04E-25 1.49E-24 1.50E-24 1.50E-24 1.50E-24

7.53E+02 0.00E+00 5.71E-26 2.53E-26 1.43E-26 5.70E-26 5.71E-26 5.71E-26 5.71E-26

7.97E+02 0.00E+00 1.80E-27 8.13E-28 5.56E-28 1.80E-27 1.80E-27 1.80E-27 1.80E-27

8.44E+02 0.00E+00 4.63E-29 2.13E-29 1.57E-29 4.62E-29 4.63E-29 4.63E-29 4.63E-29

9.93E+02 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

9.45E+02 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

1.00E+03 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

Probabilistic results summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\BFM INSITU UNCERTAINTY ANALYSIS\FCS BFM INSITU UA EU-154.RAD

Summary of dose at graphical times, reptition 2

| Time Years | Dose statistics at graphical times, mrem/yr | | | | | | | |
|---------------|---|----------|----------|----------|----------|----------|----------|----------|
| | Minimum | Maximum | Mean | Median | 90% | 95% | 97.5% | 99% |
| 0.00E+00 | 4.74E-05 | 1.44E+01 | 2.64E-01 | 8.36E-03 | 3.74E-01 | 1.13E+00 | 2.86E+00 | 6.25E+00 |
| 1.00E+00 | 4.45E-05 | 1.12E+01 | 2.28E-01 | 7.74E-03 | 3.44E-01 | 1.03E+00 | 2.55E+00 | 5.42E+00 |
| 1.06E+00 | 4.43E-05 | 1.11E+01 | 2.26E-01 | 7.71E-03 | 3.43E-01 | 1.02E+00 | 2.53E+00 | 5.37E+00 |
| 1.12E+00 | 4.41E-05 | 1.09E+01 | 2.24E-01 | 7.67E-03 | 3.41E-01 | 1.02E+00 | 2.51E+00 | 5.32E+00 |
| 1.19E+00 | 4.40E-05 | 1.07E+01 | 2.22E-01 | 7.63E-03 | 3.39E-01 | 1.01E+00 | 2.50E+00 | 5.27E+00 |
| 1.25E+00 | 4.38E-05 | 1.06E+01 | 2.20E-01 | 7.59E-03 | 3.37E-01 | 1.01E+00 | 2.48E+00 | 5.22E+00 |
| 1.33E+00 | 4.36E-05 | 1.04E+01 | 2.18E-01 | 7.55E-03 | 3.35E-01 | 9.99E-01 | 2.46E+00 | 5.17E+00 |
| 1.40E+00 | 4.33E-05 | 1.02E+01 | 2.15E-01 | 7.50E-03 | 3.33E-01 | 9.92E-01 | 2.43E+00 | 5.11E+00 |
| 1.49E+00 | 4.31E-05 | 9.97E+00 | 2.13E-01 | 7.46E-03 | 3.31E-01 | 9.84E-01 | 2.41E+00 | 5.05E+00 |
| 1.57E+00 | 4.29E-05 | 9.76E+00 | 2.10E-01 | 7.41E-03 | 3.29E-01 | 9.76E-01 | 2.39E+00 | 4.99E+00 |
| 1.66E+00 | 4.26E-05 | 9.54E+00 | 2.08E-01 | 7.35E-03 | 3.26E-01 | 9.68E-01 | 2.36E+00 | 4.92E+00 |
| 1.76E+00 | 4.24E-05 | 9.32E+00 | 2.05E-01 | 7.30E-03 | 3.23E-01 | 9.59E-01 | 2.34E+00 | 4.86E+00 |
| 1.86E+00 | 4.21E-05 | 9.09E+00 | 2.02E-01 | 7.26E-03 | 3.21E-01 | 9.50E-01 | 2.31E+00 | 4.79E+00 |
| 1.97E+00 | 4.18E-05 | 8.85E+00 | 1.99E-01 | 7.20E-03 | 3.18E-01 | 9.41E-01 | 2.28E+00 | 4.71E+00 |
| 2.09E+00 | 4.15E-05 | 8.60E+00 | 1.96E-01 | 7.14E-03 | 3.15E-01 | 9.31E-01 | 2.25E+00 | 4.64E+00 |
| 2.21E+00 | 4.12E-05 | 8.35E+00 | 1.92E-01 | 7.07E-03 | 3.12E-01 | 9.20E-01 | 2.22E+00 | 4.56E+00 |
| 2.34E+00 | 4.08E-05 | 8.09E+00 | 1.89E-01 | 7.00E-03 | 3.09E-01 | 9.09E-01 | 2.19E+00 | 4.47E+00 |
| 2.47E+00 | 4.05E-05 | 7.82E+00 | 1.86E-01 | 6.93E-03 | 3.05E-01 | 8.98E-01 | 2.15E+00 | 4.39E+00 |
| 2.62E+00 | 4.01E-05 | 7.55E+00 | 1.82E-01 | 6.85E-03 | 3.02E-01 | 8.86E-01 | 2.12E+00 | 4.30E+00 |
| 2.77E+00 | 3.97E-05 | 7.27E+00 | 1.78E-01 | 6.78E-03 | 2.98E-01 | 8.73E-01 | 2.08E+00 | 4.20E+00 |
| 2.93E+00 | 3.93E-05 | 6.99E+00 | 1.74E-01 | 6.70E-03 | 2.94E-01 | 8.60E-01 | 2.04E+00 | 4.11E+00 |
| 3.00E+00 | 3.92E-05 | 6.88E+00 | 1.73E-01 | 6.66E-03 | 2.92E-01 | 8.55E-01 | 2.03E+00 | 4.07E+00 |
| 3.10E+00 | 3.89E-05 | 6.70E+00 | 1.71E-01 | 6.61E-03 | 2.90E-01 | 8.47E-01 | 2.00E+00 | 4.01E+00 |
| 3.28E+00 | 3.85E-05 | 6.41E+00 | 1.67E-01 | 6.52E-03 | 2.85E-01 | 8.33E-01 | 1.96E+00 | 3.91E+00 |
| 3.48E+00 | 3.80E-05 | 6.12E+00 | 1.63E-01 | 6.42E-03 | 2.81E-01 | 8.18E-01 | 1.92E+00 | 3.80E+00 |
| 3.68E+00 | 3.75E-05 | 5.82E+00 | 1.59E-01 | 6.32E-03 | 2.79E-01 | 8.03E-01 | 1.88E+00 | 3.69E+00 |
| 3.89E+00 | 3.70E-05 | 5.52E+00 | 1.55E-01 | 6.22E-03 | 2.74E-01 | 7.87E-01 | 1.83E+00 | 3.58E+00 |
| 4.12E+00 | 3.64E-05 | 5.22E+00 | 1.51E-01 | 6.11E-03 | 2.69E-01 | 7.72E-01 | 1.78E+00 | 3.36E+00 |
| 4.36E+00 | 3.57E-05 | 4.93E+00 | 1.47E-01 | 6.00E-03 | 2.65E-01 | 7.77E-01 | 1.74E+00 | 3.13E+00 |
| 4.61E+00 | 3.50E-05 | 4.63E+00 | 1.44E-01 | 5.88E-03 | 2.69E-01 | 7.58E-01 | 1.70E+00 | 3.01E+00 |
| 4.88E+00 | 3.43E-05 | 4.33E+00 | 1.41E-01 | 5.76E-03 | 2.73E-01 | 7.39E-01 | 1.80E+00 | 2.91E+00 |
| 5.17E+00 | 3.36E-05 | 4.04E+00 | 1.38E-01 | 5.64E-03 | 2.67E-01 | 8.27E-01 | 1.74E+00 | 2.81E+00 |
| 5.47E+00 | 3.28E-05 | 3.75E+00 | 1.35E-01 | 5.51E-03 | 2.60E-01 | 8.88E-01 | 1.69E+00 | 2.71E+00 |
| 5.78E+00 | 3.20E-05 | 3.47E+00 | 1.32E-01 | 5.40E-03 | 2.53E-01 | 8.61E-01 | 1.70E+00 | 2.58E+00 |
| 6.12E+00 | 3.12E-05 | 3.23E+00 | 1.28E-01 | 5.29E-03 | 2.64E-01 | 8.34E-01 | 1.68E+00 | 2.40E+00 |
| 6.48E+00 | 3.04E-05 | 3.07E+00 | 1.24E-01 | 5.16E-03 | 2.56E-01 | 8.06E-01 | 1.61E+00 | 2.22E+00 |
| 6.86E+00 | 2.95E-05 | 2.92E+00 | 1.20E-01 | 5.04E-03 | 2.48E-01 | 8.27E-01 | 1.49E+00 | 2.10E+00 |
| 7.26E+00 | 2.86E-05 | 2.76E+00 | 1.15E-01 | 4.89E-03 | 2.49E-01 | 7.95E-01 | 1.46E+00 | 2.00E+00 |
| 7.68E+00 | 2.77E-05 | 2.60E+00 | 1.11E-01 | 4.73E-03 | 2.41E-01 | 7.63E-01 | 1.38E+00 | 1.89E+00 |
| 8.13E+00 | 2.68E-05 | 2.44E+00 | 1.07E-01 | 4.56E-03 | 2.34E-01 | 7.45E-01 | 1.30E+00 | 1.80E+00 |
| 8.60E+00 | 2.58E-05 | 2.29E+00 | 1.02E-01 | 4.40E-03 | 2.26E-01 | 7.13E-01 | 1.29E+00 | 1.74E+00 |
| 9.10E+00 | 2.49E-05 | 2.13E+00 | 9.81E-02 | 4.23E-03 | 2.17E-01 | 6.80E-01 | 1.21E+00 | 1.66E+00 |
| 9.63E+00 | 2.39E-05 | 1.98E+00 | 9.36E-02 | 4.08E-03 | 2.08E-01 | 6.55E-01 | 1.12E+00 | 1.59E+00 |
| 1.00E+01 | 2.32E-05 | 1.88E+00 | 9.07E-02 | 3.96E-03 | 2.10E-01 | 6.24E-01 | 1.07E+00 | 1.55E+00 |
| 1.02E+01 | 2.29E-05 | 1.83E+00 | 8.92E-02 | 3.90E-03 | 2.07E-01 | 6.13E-01 | 1.04E+00 | 1.52E+00 |
| 1.08E+01 | 2.19E-05 | 1.69E+00 | 8.44E-02 | 3.72E-03 | 1.96E-01 | 5.80E-01 | 9.60E-01 | 1.45E+00 |
| 1.14E+01 | 2.08E-05 | 1.55E+00 | 7.98E-02 | 3.54E-03 | 1.87E-01 | 5.54E-01 | 8.54E-01 | 1.38E+00 |
| 1.21E+01 | 1.98E-05 | 1.41E+00 | 7.57E-02 | 3.36E-03 | 1.78E-01 | 5.21E-01 | 8.06E-01 | 1.31E+00 |
| 1.28E+01 | 1.88E-05 | 1.28E+00 | 7.16E-02 | 3.18E-03 | 1.68E-01 | 4.99E-01 | 7.33E-01 | 1.24E+00 |
| 1.35E+01 | 1.77E-05 | 1.20E+00 | 6.76E-02 | 3.02E-03 | 1.58E-01 | 4.89E-01 | 7.87E-01 | 1.17E+00 |
| 1.43E+01 | 1.67E-05 | 1.12E+00 | 6.39E-02 | 2.84E-03 | 1.49E-01 | 4.27E-01 | 8.17E-01 | 1.10E+00 |
| 1.51E+01 | 1.57E-05 | 1.05E+00 | 5.95E-02 | 2.66E-03 | 1.42E-01 | 3.91E-01 | 7.31E-01 | 1.03E+00 |
| 1.60E+01 | 1.46E-05 | 9.80E-01 | 5.48E-02 | 2.49E-03 | 1.36E-01 | 3.54E-01 | 6.49E-01 | 9.60E-01 |
| 1.70E+01 | 1.36E-05 | 9.09E-01 | 5.05E-02 | 2.33E-03 | 1.30E-01 | 3.24E-01 | 5.73E-01 | 8.92E-01 |
| 1.80E+01 | 1.26E-05 | 8.40E-01 | 4.67E-02 | 2.16E-03 | 1.22E-01 | 2.95E-01 | 5.58E-01 | 8.25E-01 |
| 1.90E+01 | 1.17E-05 | 7.72E-01 | 4.28E-02 | 2.00E-03 | 1.11E-01 | 2.63E-01 | 4.91E-01 | 7.60E-01 |

2.01E+01 1.07E-05 7.07E-01 3.90E-02 1.84E-03 1.02E-01 2.40E-01 4.28E-01 6.96E-01

2.13E+01 9.81E-06 6.43E-01 3.55E-02 1.67E-03 8.89E-02 2.09E-01 3.92E-01 6.35E-01

2.25E+01 8.93E-06 5.82E-01 3.19E-02 1.52E-03 7.93E-02 1.91E-01 3.33E-01 5.76E-01

2.38E+01 8.07E-06 5.24E-01 2.86E-02 1.37E-03 7.06E-02 1.69E-01 2.92E-01 5.19E-01

2.52E+01 7.26E-06 4.69E-01 2.57E-02 1.23E-03 6.24E-02 1.53E-01 3.37E-01 4.66E-01

2.67E+01 6.49E-06 4.33E-01 2.29E-02 1.10E-03 5.48E-02 1.30E-01 3.53E-01 4.15E-01

2.82E+01 5.76E-06 3.82E-01 2.01E-02 9.75E-04 4.77E-02 1.09E-01 3.58E-01 3.67E-01

2.99E+01 5.08E-06 3.34E-01 1.74E-02 8.58E-04 4.13E-02 8.91E-02 3.13E-01 3.22E-01

3.00E+01 5.04E-06 3.30E-01 1.73E-02 8.50E-04 4.08E-02 8.79E-02 3.10E-01 3.19E-01

3.16E+01 4.45E-06 2.89E-01 1.50E-02 7.55E-04 3.38E-02 7.28E-02 2.71E-01 2.81E-01

3.35E+01 3.87E-06 2.49E-01 1.28E-02 6.53E-04 2.89E-02 6.09E-02 2.34E-01 2.43E-01

3.54E+01 3.33E-06 2.12E-01 1.09E-02 5.61E-04 2.52E-02 5.05E-02 1.99E-01 2.08E-01

3.75E+01 2.85E-06 1.79E-01 9.20E-03 4.77E-04 2.10E-02 4.15E-02 1.69E-01 1.77E-01

3.97E+01 2.41E-06 1.50E-01 7.76E-03 4.03E-04 1.71E-02 3.30E-02 1.41E-01 1.49E-01

4.20E+01 2.02E-06 1.24E-01 6.57E-03 3.36E-04 1.40E-02 2.56E-02 1.22E-01 1.24E-01

4.44E+01 1.68E-06 1.03E-01 5.39E-03 2.78E-04 1.13E-02 2.01E-02 1.01E-01 1.03E-01

4.70E+01 1.38E-06 8.37E-02 4.35E-03 2.27E-04 9.19E-03 1.55E-02 8.20E-02 8.36E-02

4.97E+01 1.12E-06 6.74E-02 3.49E-03 1.84E-04 7.36E-03 1.28E-02 6.57E-02 6.74E-02

5.26E+01 8.95E-07 5.37E-02 2.79E-03 1.46E-04 5.48E-03 9.66E-03 5.20E-02 5.37E-02

5.57E+01 7.08E-07 4.22E-02 2.23E-03 1.16E-04 4.21E-03 7.14E-03 4.10E-02 4.21E-02

5.90E+01 3.27E-07 3.27E-02 1.71E-03 9.03E-05 3.10E-03 5.16E-03 3.22E-02 3.26E-02

6.24E+01 1.19E-07 2.49E-02 1.30E-03 6.95E-05 2.29E-03 3.73E-03 2.45E-02 2.49E-02

6.60E+01 4.07E-08 1.87E-02 9.43E-04 5.29E-05 1.67E-03 2.72E-03 1.80E-02 1.87E-02

99E+01 0.00E+00 1.38E-02 6.86E-04 3.90E-05 1.15E-03 1.95E-03 1.32E-02 1.38E-02

7.39E+01 0.00E+00 1.00E-02 5.03E-04 2.93E-05 8.18E-04 1.37E-03 9.57E-03 1.00E-02

7.82E+01 0.00E+00 7.15E-03 3.64E-04 2.19E-05 5.72E-04 9.98E-04 6.98E-03 7.14E-03

8.28E+01 0.00E+00 4.99E-03 2.55E-04 1.59E-05 3.91E-04 6.81E-04 4.92E-03 4.98E-03

8.76E+01 0.00E+00 3.41E-03 1.75E-04 1.17E-05 2.57E-04 4.55E-04 3.36E-03 3.41E-03

9.27E+01 0.00E+00 2.28E-03 1.18E-04 8.22E-06 1.62E-04 2.88E-04 2.26E-03 2.28E-03

9.81E+01 0.00E+00 1.49E-03 7.68E-05 5.63E-06 1.00E-04 1.75E-04 1.47E-03 1.49E-03

1.00E+02 0.00E+00 1.29E-03 6.63E-05 5.03E-06 8.46E-05 1.47E-04 1.27E-03 1.28E-03

1.04E+02 0.00E+00 9.51E-04 4.92E-05 3.73E-06 6.11E-05 1.04E-04 9.38E-04 9.49E-04

1.10E+02 0.00E+00 5.90E-04 3.05E-05 2.39E-06 3.61E-05 5.90E-05 5.82E-04 5.89E-04

1.16E+02 0.00E+00 3.57E-04 1.85E-05 1.62E-06 2.17E-05 3.37E-05 3.51E-04 3.56E-04

1.23E+02 0.00E+00 2.09E-04 1.10E-05 1.00E-06 1.19E-05 1.96E-05 2.07E-04 2.09E-04

1.30E+02 0.00E+00 1.19E-04 6.28E-06 6.09E-07 6.55E-06 1.05E-05 1.18E-04 1.19E-04

1.38E+02 0.00E+00 6.54E-05 3.51E-06 3.26E-07 3.66E-06 6.01E-06 6.46E-05 6.53E-05

1.46E+02 0.00E+00 3.48E-05 1.92E-06 1.77E-07 2.07E-06 3.56E-06 3.43E-05 3.47E-05

1.54E+02 0.00E+00 1.78E-05 1.03E-06 1.01E-07 1.19E-06 2.68E-06 1.76E-05 1.78E-05

1.63E+02 0.00E+00 8.76E-06 5.45E-07 5.20E-08 6.93E-07 2.12E-06 8.67E-06 8.75E-06

1.73E+02 0.00E+00 4.14E-06 2.86E-07 2.75E-08 4.69E-07 1.75E-06 4.12E-06 4.14E-06

1.83E+02 0.00E+00 1.87E-06 1.53E-07 1.40E-08 3.35E-07 1.26E-06 1.86E-06 1.87E-06

1.94E+02 0.00E+00 8.09E-07 7.91E-08 6.70E-09 2.30E-07 7.21E-07 8.05E-07 8.09E-07

2.05E+02 0.00E+00 3.33E-07 3.85E-08 2.91E-09 1.62E-07 3.26E-07 3.32E-07 3.33E-07

2.17E+02 0.00E+00 1.30E-07 1.73E-08 1.20E-09 9.82E-08 1.29E-07 1.30E-07 1.30E-07

2.29E+02 0.00E+00 4.81E-08 7.23E-09 4.82E-10 4.18E-08 4.78E-08 4.80E-08 4.81E-08

2.43E+02 0.00E+00 1.68E-08 2.81E-09 1.79E-10 1.60E-08 1.67E-08 1.68E-08 1.68E-08

2.57E+02 0.00E+00 5.51E-09 1.01E-09 6.36E-11 5.36E-09 5.49E-09 5.50E-09 5.51E-09

2.72E+02 0.00E+00 1.69E-09 3.37E-10 2.06E-11 1.65E-09 1.69E-09 1.69E-09 1.69E-09

2.88E+02 0.00E+00 4.87E-10 1.05E-10 6.51E-12 4.77E-10 4.85E-10 4.86E-10 4.87E-10

3.00E+02 0.00E+00 1.85E-10 4.24E-11 2.69E-12 1.83E-10 1.85E-10 1.85E-10 1.85E-10

3.05E+02 0.00E+00 1.30E-10 3.03E-11 1.88E-12 1.28E-10 1.30E-10 1.30E-10 1.30E-10

3.22E+02 0.00E+00 3.21E-11 8.01E-12 5.08E-13 3.18E-11 3.21E-11 3.21E-11 3.21E-11

3.41E+02 0.00E+00 7.32E-12 1.94E-12 1.25E-13 7.26E-12 7.32E-12 7.32E-12 7.32E-12

3.61E+02 0.00E+00 1.53E-12 4.27E-13 2.85E-14 1.52E-12 1.53E-12 1.53E-12 1.53E-12

3.82E+02 0.00E+00 2.92E-13 8.58E-14 5.67E-15 2.90E-13 2.92E-13 2.92E-13 2.92E-13

4.04E+02 0.00E+00 5.07E-14 1.56E-14 1.04E-15 5.04E-14 5.06E-14 5.07E-14 5.07E-14

4.28E+02 0.00E+00 7.93E-15 2.56E-15 1.77E-16 7.89E-15 7.93E-15 7.93E-15 7.93E-15

4.53E+02 0.00E+00 1.11E-15 3.75E-16 2.65E-17 1.11E-15 1.11E-15 1.11E-15 1.11E-15

4.79E+02 0.00E+00 1.40E-16 4.91E-17 3.91E-18 1.39E-16 1.40E-16 1.40E-16 1.40E-16

5.07E+02 0.00E+00 1.55E-17 5.69E-18 5.77E-19 1.54E-17 1.55E-17 1.55E-17 1.55E-17

5.36E+02 0.00E+00 1.52E-18 5.81E-19 7.90E-20 1.51E-18 1.51E-18 1.51E-18 1.52E-18

5.68E+02 0.00E+00 1.29E-19 5.12E-20 1.04E-20 1.29E-19 1.29E-19 1.29E-19 1.29E-19

0.01E+02 0.00E+00 9.56E-21 3.90E-21 9.29E-22 9.53E-21 9.55E-21 9.56E-21 9.56E-21

6.36E+02 0.00E+00 6.07E-22 2.54E-22 8.20E-23 6.05E-22 6.06E-22 6.07E-22 6.07E-22

6.73E+02 0.00E+00 3.28E-23 1.41E-23 5.12E-24 3.27E-23 3.28E-23 3.28E-23 3.28E-23

7.12E+02 0.00E+00 1.50E-24 6.63E-25 3.57E-25 1.49E-24 1.50E-24 1.50E-24 1.50E-24

7.53E+02 0.00E+00 5.71E-26 2.60E-26 1.77E-26 5.70E-26 5.71E-26 5.71E-26 5.71E-26

7.97E+02 0.00E+00 1.80E-27 8.40E-28 6.81E-28 1.79E-27 1.80E-27 1.80E-27 1.80E-27

8.44E+02 0.00E+00 4.63E-29 2.19E-29 2.08E-29 4.62E-29 4.63E-29 4.63E-29 4.63E-29

9.93E+02 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

9.45E+02 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

1.00E+03 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

Probabilistic results summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\BFM INSITU UNCERTAINTY ANALYSIS\FCS BFM INSITU UA EU-154.RAD

Summary of dose at graphical times, reptition 3

| Time Years | Dose statistics at graphical times, mrem/yr | | | | | | | |
|---------------|---|----------|----------|----------|----------|----------|----------|----------|
| | Minimum | Maximum | Mean | Median | 90% | 95% | 97.5% | 99% |
| 0.00E+00 | 3.80E-05 | 1.33E+01 | 2.68E-01 | 8.92E-03 | 3.55E-01 | 1.11E+00 | 2.79E+00 | 7.15E+00 |
| 1.00E+00 | 3.58E-05 | 1.03E+01 | 2.31E-01 | 8.24E-03 | 3.27E-01 | 1.01E+00 | 2.49E+00 | 6.05E+00 |
| 1.06E+00 | 3.57E-05 | 1.01E+01 | 2.29E-01 | 8.20E-03 | 3.25E-01 | 1.01E+00 | 2.47E+00 | 5.99E+00 |
| 1.12E+00 | 3.55E-05 | 9.97E+00 | 2.27E-01 | 8.16E-03 | 3.23E-01 | 1.00E+00 | 2.45E+00 | 5.93E+00 |
| 1.19E+00 | 3.54E-05 | 9.81E+00 | 2.24E-01 | 8.12E-03 | 3.22E-01 | 9.97E-01 | 2.43E+00 | 5.87E+00 |
| 1.25E+00 | 3.52E-05 | 9.63E+00 | 2.22E-01 | 8.08E-03 | 3.20E-01 | 9.91E-01 | 2.41E+00 | 5.80E+00 |
| 1.33E+00 | 3.51E-05 | 9.45E+00 | 2.20E-01 | 8.03E-03 | 3.18E-01 | 9.84E-01 | 2.39E+00 | 5.73E+00 |
| 1.40E+00 | 3.49E-05 | 9.26E+00 | 2.17E-01 | 7.98E-03 | 3.16E-01 | 9.78E-01 | 2.37E+00 | 5.66E+00 |
| 1.49E+00 | 3.48E-05 | 9.07E+00 | 2.15E-01 | 7.93E-03 | 3.14E-01 | 9.71E-01 | 2.35E+00 | 5.58E+00 |
| 1.57E+00 | 3.46E-05 | 8.87E+00 | 2.12E-01 | 7.88E-03 | 3.11E-01 | 9.63E-01 | 2.32E+00 | 5.50E+00 |
| 1.66E+00 | 3.44E-05 | 8.66E+00 | 2.09E-01 | 7.82E-03 | 3.09E-01 | 9.55E-01 | 2.30E+00 | 5.42E+00 |
| 1.76E+00 | 3.42E-05 | 8.44E+00 | 2.07E-01 | 7.84E-03 | 3.06E-01 | 9.47E-01 | 2.27E+00 | 5.33E+00 |
| 1.86E+00 | 3.40E-05 | 8.22E+00 | 2.04E-01 | 7.78E-03 | 3.04E-01 | 9.39E-01 | 2.25E+00 | 5.24E+00 |
| 1.97E+00 | 3.38E-05 | 7.99E+00 | 2.00E-01 | 7.71E-03 | 3.01E-01 | 9.30E-01 | 2.22E+00 | 5.14E+00 |
| 2.09E+00 | 3.36E-05 | 7.76E+00 | 1.97E-01 | 7.64E-03 | 2.98E-01 | 9.20E-01 | 2.19E+00 | 5.05E+00 |
| 2.21E+00 | 3.33E-05 | 7.52E+00 | 1.94E-01 | 7.57E-03 | 2.95E-01 | 9.10E-01 | 2.16E+00 | 4.95E+00 |
| 2.24E+00 | 3.31E-05 | 7.27E+00 | 1.90E-01 | 7.49E-03 | 2.92E-01 | 9.00E-01 | 2.12E+00 | 4.84E+00 |
| 2.27E+00 | 3.28E-05 | 7.02E+00 | 1.87E-01 | 7.41E-03 | 2.89E-01 | 8.89E-01 | 2.09E+00 | 4.73E+00 |
| 2.26E+00 | 3.25E-05 | 6.76E+00 | 1.83E-01 | 7.33E-03 | 2.85E-01 | 8.78E-01 | 2.06E+00 | 4.62E+00 |
| 2.27E+00 | 3.22E-05 | 6.50E+00 | 1.79E-01 | 7.24E-03 | 2.82E-01 | 8.66E-01 | 2.02E+00 | 4.50E+00 |
| 2.29E+00 | 3.19E-05 | 6.23E+00 | 1.75E-01 | 7.22E-03 | 2.78E-01 | 8.54E-01 | 1.98E+00 | 4.38E+00 |
| 3.00E+00 | 3.18E-05 | 6.12E+00 | 1.74E-01 | 7.18E-03 | 2.76E-01 | 8.49E-01 | 1.97E+00 | 4.31E+00 |
| 3.310E+00 | 3.16E-05 | 5.96E+00 | 1.71E-01 | 7.12E-03 | 2.74E-01 | 8.41E-01 | 1.94E+00 | 4.18E+00 |
| 3.328E+00 | 3.13E-05 | 5.69E+00 | 1.67E-01 | 7.11E-03 | 2.70E-01 | 8.28E-01 | 1.90E+00 | 4.02E+00 |
| 3.48E+00 | 3.09E-05 | 5.41E+00 | 1.63E-01 | 7.00E-03 | 2.81E-01 | 8.14E-01 | 1.86E+00 | 3.90E+00 |
| 3.68E+00 | 3.05E-05 | 5.14E+00 | 1.59E-01 | 6.89E-03 | 2.76E-01 | 7.99E-01 | 1.82E+00 | 3.77E+00 |
| 3.89E+00 | 3.02E-05 | 4.89E+00 | 1.55E-01 | 6.78E-03 | 2.71E-01 | 7.84E-01 | 1.77E+00 | 3.63E+00 |
| 4.12E+00 | 2.98E-05 | 4.70E+00 | 1.52E-01 | 6.66E-03 | 2.66E-01 | 7.74E-01 | 1.72E+00 | 3.50E+00 |
| 4.36E+00 | 2.93E-05 | 4.51E+00 | 1.48E-01 | 6.54E-03 | 2.61E-01 | 7.65E-01 | 1.68E+00 | 3.36E+00 |
| 4.61E+00 | 2.89E-05 | 4.32E+00 | 1.45E-01 | 6.41E-03 | 2.60E-01 | 7.56E-01 | 1.63E+00 | 3.23E+00 |
| 4.88E+00 | 2.84E-05 | 4.13E+00 | 1.41E-01 | 6.27E-03 | 2.54E-01 | 7.45E-01 | 1.58E+00 | 3.09E+00 |
| 5.17E+00 | 2.80E-05 | 3.93E+00 | 1.38E-01 | 6.17E-03 | 2.48E-01 | 7.32E-01 | 1.52E+00 | 2.95E+00 |
| 5.47E+00 | 2.75E-05 | 3.73E+00 | 1.34E-01 | 6.03E-03 | 2.42E-01 | 7.17E-01 | 1.46E+00 | 2.87E+00 |
| 5.78E+00 | 2.70E-05 | 3.53E+00 | 1.31E-01 | 5.88E-03 | 2.36E-01 | 7.00E-01 | 1.39E+00 | 2.72E+00 |
| 6.12E+00 | 2.64E-05 | 3.34E+00 | 1.26E-01 | 5.72E-03 | 2.31E-01 | 6.83E-01 | 1.32E+00 | 2.57E+00 |
| 6.48E+00 | 2.59E-05 | 3.14E+00 | 1.21E-01 | 5.57E-03 | 2.24E-01 | 6.64E-01 | 1.25E+00 | 2.42E+00 |
| 6.86E+00 | 2.53E-05 | 2.94E+00 | 1.17E-01 | 5.40E-03 | 2.17E-01 | 6.44E-01 | 1.17E+00 | 2.25E+00 |
| 7.26E+00 | 2.47E-05 | 2.75E+00 | 1.12E-01 | 5.24E-03 | 2.09E-01 | 6.23E-01 | 1.09E+00 | 2.09E+00 |
| 7.68E+00 | 2.41E-05 | 2.55E+00 | 1.09E-01 | 5.08E-03 | 2.01E-01 | 6.01E-01 | 1.01E+00 | 1.95E+00 |
| 8.13E+00 | 2.35E-05 | 2.37E+00 | 1.05E-01 | 4.91E-03 | 1.93E-01 | 5.78E-01 | 0.93E+00 | 1.81E+00 |
| 8.60E+00 | 2.28E-05 | 2.18E+00 | 1.00E-01 | 4.73E-03 | 1.84E-01 | 5.54E-01 | 0.85E+00 | 1.67E+00 |
| 9.10E+00 | 2.22E-05 | 2.00E+00 | 9.57E-02 | 4.54E-03 | 1.76E-01 | 5.29E-01 | 0.77E+00 | 1.53E+00 |
| 9.63E+00 | 2.15E-05 | 1.83E+00 | 9.12E-02 | 4.36E-03 | 1.67E-01 | 5.04E-01 | 0.69E+00 | 1.39E+00 |
| 1.00E+01 | 2.10E-05 | 1.72E+00 | 8.84E-02 | 4.23E-03 | 1.59E-01 | 4.79E-01 | 0.61E+00 | 1.25E+00 |
| 1.02E+01 | 2.08E-05 | 1.66E+00 | 8.69E-02 | 4.17E-03 | 1.54E-01 | 4.61E-01 | 0.54E+00 | 1.12E+00 |
| 1.08E+01 | 2.01E-05 | 1.50E+00 | 8.21E-02 | 3.98E-03 | 1.39E-01 | 4.29E-01 | 0.47E+00 | 1.01E+00 |
| 1.14E+01 | 1.94E-05 | 1.38E+00 | 7.77E-02 | 3.79E-03 | 1.24E-01 | 3.94E-01 | 0.40E+00 | 0.91E+00 |
| 1.21E+01 | 1.86E-05 | 1.31E+00 | 7.39E-02 | 3.59E-03 | 1.10E-01 | 3.58E-01 | 0.33E+00 | 0.81E+00 |
| 1.28E+01 | 1.79E-05 | 1.25E+00 | 6.99E-02 | 3.40E-03 | 1.00E-01 | 3.22E-01 | 0.26E+00 | 0.71E+00 |
| 1.35E+01 | 1.71E-05 | 1.18E+00 | 6.50E-02 | 3.21E-03 | 9.0E-02 | 2.86E-01 | 0.20E+00 | 0.61E+00 |
| 1.43E+01 | 1.63E-05 | 1.10E+00 | 6.02E-02 | 3.01E-03 | 8.0E-02 | 2.50E-01 | 0.14E+00 | 0.51E+00 |
| 1.51E+01 | 1.55E-05 | 1.03E+00 | 5.57E-02 | 2.82E-03 | 7.0E-02 | 2.14E-01 | 0.08E+00 | 0.41E+00 |
| 1.60E+01 | 1.47E-05 | 9.65E-01 | 5.17E-02 | 2.63E-03 | 6.0E-02 | 1.78E-01 | 0.02E+00 | 0.31E+00 |
| 1.70E+01 | 1.40E-05 | 9.84E-01 | 4.80E-02 | 2.45E-03 | 5.0E-02 | 1.42E-01 | 0.00E+00 | 0.21E+00 |
| 1.80E+01 | 1.32E-05 | 9.08E-01 | 4.43E-02 | 2.26E-03 | 4.0E-02 | 1.06E-01 | 0.00E+00 | 0.11E+00 |
| 1.90E+01 | 1.24E-05 | 8.27E-01 | 4.03E-02 | 2.09E-03 | 3.0E-02 | 7.0E-02 | 0.00E+00 | 0.01E+00 |

2.01E+01 1.14E-05 7.50E-01 3.65E-02 1.91E-03 8.98E-02 2.35E-01 3.44E-01 6.96E-01

2.13E+01 1.04E-05 6.75E-01 3.31E-02 1.77E-03 8.17E-02 2.05E-01 3.16E-01 6.35E-01

2.25E+01 9.46E-06 6.05E-01 3.01E-02 1.61E-03 7.69E-02 1.68E-01 2.66E-01 5.76E-01

2.38E+01 8.54E-06 5.38E-01 2.69E-02 1.45E-03 6.89E-02 1.41E-01 2.29E-01 5.19E-01

2.52E+01 7.65E-06 4.76E-01 2.42E-02 1.30E-03 6.13E-02 1.27E-01 2.08E-01 4.66E-01

2.67E+01 6.82E-06 4.17E-01 2.17E-02 1.16E-03 5.42E-02 1.04E-01 2.54E-01 4.15E-01

2.82E+01 6.03E-06 3.67E-01 1.90E-02 1.05E-03 4.76E-02 8.92E-02 2.53E-01 3.67E-01

2.99E+01 5.30E-06 3.22E-01 1.65E-02 9.20E-04 4.19E-02 7.56E-02 2.16E-01 3.22E-01

3.00E+01 5.25E-06 3.19E-01 1.63E-02 9.12E-04 4.14E-02 7.47E-02 2.13E-01 3.19E-01

3.16E+01 4.62E-06 2.81E-01 1.42E-02 8.03E-04 3.62E-02 6.33E-02 1.83E-01 2.81E-01

3.35E+01 3.99E-06 2.43E-01 1.22E-02 7.07E-04 2.86E-02 5.13E-02 1.69E-01 2.43E-01

3.54E+01 3.43E-06 2.08E-01 1.04E-02 6.07E-04 2.43E-02 4.31E-02 1.88E-01 2.08E-01

3.75E+01 2.91E-06 1.77E-01 8.80E-03 5.16E-04 2.06E-02 3.50E-02 1.68E-01 1.77E-01

3.97E+01 2.45E-06 1.49E-01 7.32E-03 4.35E-04 1.71E-02 2.99E-02 1.39E-01 1.49E-01

4.20E+01 2.04E-06 1.24E-01 6.06E-03 3.59E-04 1.37E-02 2.32E-02 1.15E-01 1.24E-01

4.44E+01 1.69E-06 1.03E-01 5.00E-03 3.00E-04 1.05E-02 1.83E-02 9.35E-02 1.02E-01

4.70E+01 1.38E-06 8.37E-02 4.11E-03 2.45E-04 8.39E-03 1.45E-02 8.29E-02 8.36E-02

4.97E+01 1.11E-06 6.74E-02 3.32E-03 1.98E-04 6.76E-03 1.14E-02 6.68E-02 6.74E-02

5.26E+01 8.82E-07 5.37E-02 2.64E-03 1.58E-04 5.20E-03 8.56E-03 5.31E-02 5.36E-02

5.57E+01 5.17E-07 4.22E-02 2.06E-03 1.24E-04 4.01E-03 6.28E-03 4.16E-02 4.21E-02

5.90E+01 1.94E-07 3.27E-02 1.60E-03 9.71E-05 3.04E-03 4.92E-03 3.22E-02 3.26E-02

6.24E+01 6.86E-08 2.49E-02 1.23E-03 7.42E-05 2.27E-03 3.43E-03 2.46E-02 2.49E-02

60E+01 2.29E-08 1.87E-02 9.26E-04 5.60E-05 1.57E-03 2.54E-03 1.85E-02 1.87E-02

99E+01 7.15E-09 1.38E-02 6.94E-04 4.15E-05 1.15E-03 1.79E-03 1.36E-02 1.38E-02

7.39E+01 2.09E-09 1.00E-02 5.06E-04 3.03E-05 8.09E-04 1.36E-03 9.89E-03 1.00E-02

7.82E+01 5.68E-10 7.15E-03 3.62E-04 2.13E-05 5.57E-04 9.28E-04 7.05E-03 7.14E-03

8.28E+01 1.43E-10 4.99E-03 2.52E-04 1.52E-05 3.55E-04 6.21E-04 4.92E-03 4.99E-03

8.76E+01 3.33E-11 3.41E-03 1.73E-04 1.10E-05 2.34E-04 4.06E-04 3.36E-03 3.41E-03

9.27E+01 7.11E-12 2.28E-03 1.16E-04 7.79E-06 1.48E-04 2.60E-04 2.25E-03 2.28E-03

9.81E+01 1.39E-12 1.49E-03 7.52E-05 5.48E-06 9.39E-05 1.61E-04 1.47E-03 1.49E-03

1.00E+02 7.89E-13 1.29E-03 6.48E-05 4.79E-06 8.06E-05 1.37E-04 1.27E-03 1.29E-03

1.04E+02 2.47E-13 9.51E-04 4.79E-05 3.80E-06 5.89E-05 9.52E-05 9.34E-04 9.50E-04

1.10E+02 3.96E-14 5.90E-04 2.99E-05 2.50E-06 3.57E-05 5.69E-05 5.79E-04 5.90E-04

1.16E+02 5.71E-15 3.57E-04 1.83E-05 1.57E-06 2.12E-05 3.21E-05 3.49E-04 3.56E-04

1.23E+02 7.37E-16 2.09E-04 1.08E-05 9.89E-07 1.21E-05 1.82E-05 2.05E-04 2.09E-04

1.30E+02 8.43E-17 1.19E-04 6.28E-06 6.00E-07 6.66E-06 1.01E-05 1.16E-04 1.19E-04

1.38E+02 8.50E-18 6.54E-05 3.51E-06 3.59E-07 3.60E-06 5.86E-06 6.43E-05 6.54E-05

1.46E+02 7.50E-19 3.48E-05 1.93E-06 2.00E-07 2.00E-06 3.32E-06 3.41E-05 3.47E-05

1.54E+02 5.75E-20 1.78E-05 1.03E-06 1.14E-07 1.15E-06 2.59E-06 1.76E-05 1.78E-05

1.63E+02 3.79E-21 8.76E-06 5.38E-07 5.88E-08 7.02E-07 2.09E-06 8.64E-06 8.76E-06

1.73E+02 2.13E-22 4.14E-06 2.83E-07 3.00E-08 4.59E-07 1.69E-06 4.08E-06 4.14E-06

1.83E+02 1.02E-23 1.87E-06 1.51E-07 1.43E-08 3.47E-07 1.39E-06 1.84E-06 1.87E-06

1.94E+02 4.05E-25 8.09E-07 7.94E-08 6.55E-09 2.32E-07 7.42E-07 8.04E-07 8.09E-07

2.05E+02 1.34E-26 3.33E-07 3.87E-08 3.09E-09 1.54E-07 3.28E-07 3.32E-07 3.33E-07

2.17E+02 3.62E-28 1.30E-07 1.75E-08 1.27E-09 9.47E-08 1.29E-07 1.30E-07 1.30E-07

2.29E+02 7.37E-30 4.81E-08 7.33E-09 5.13E-10 4.37E-08 4.79E-08 4.80E-08 4.81E-08

2.43E+02 0.00E+00 1.68E-08 2.86E-09 1.92E-10 1.63E-08 1.67E-08 1.68E-08 1.68E-08

2.57E+02 0.00E+00 5.51E-09 1.03E-09 6.86E-11 5.39E-09 5.49E-09 5.50E-09 5.51E-09

2.72E+02 0.00E+00 1.70E-09 3.46E-10 2.25E-11 1.68E-09 1.69E-09 1.69E-09 1.69E-09

2.88E+02 0.00E+00 4.87E-10 1.07E-10 6.85E-12 4.82E-10 4.86E-10 4.86E-10 4.87E-10

3.00E+02 0.00E+00 1.85E-10 4.29E-11 2.83E-12 1.84E-10 1.85E-10 1.85E-10 1.85E-10

3.05E+02 0.00E+00 1.30E-10 3.06E-11 1.96E-12 1.29E-10 1.30E-10 1.30E-10 1.30E-10

3.22E+02 0.00E+00 3.21E-11 8.03E-12 5.25E-13 3.19E-11 3.21E-11 3.21E-11 3.21E-11

3.41E+02 0.00E+00 7.32E-12 1.94E-12 1.25E-13 7.28E-12 7.32E-12 7.32E-12 7.32E-12

3.61E+02 0.00E+00 1.53E-12 4.29E-13 2.75E-14 1.52E-12 1.53E-12 1.53E-12 1.53E-12

3.82E+02 0.00E+00 2.92E-13 8.63E-14 5.50E-15 2.91E-13 2.92E-13 2.92E-13 2.92E-13

4.04E+02 0.00E+00 5.07E-14 1.58E-14 1.01E-15 5.05E-14 5.07E-14 5.07E-14 5.07E-14

4.28E+02 0.00E+00 7.93E-15 2.59E-15 1.74E-16 7.90E-15 7.93E-15 7.93E-15 7.93E-15

4.53E+02 0.00E+00 1.11E-15 3.79E-16 2.82E-17 1.11E-15 1.11E-15 1.11E-15 1.11E-15

4.79E+02 0.00E+00 1.40E-16 4.95E-17 3.97E-18 1.39E-16 1.40E-16 1.40E-16 1.40E-16

5.07E+02 0.00E+00 1.55E-17 5.69E-18 5.51E-19 1.54E-17 1.55E-17 1.55E-17 1.55E-17

5.36E+02 0.00E+00 1.52E-18 5.78E-19 7.28E-20 1.51E-18 1.51E-18 1.52E-18 1.52E-18

5.68E+02 0.00E+00 1.29E-19 5.11E-20 9.04E-21 1.29E-19 1.29E-19 1.29E-19 1.29E-19

0.01E+02 0.00E+00 9.56E-21 3.91E-21 8.82E-22 9.52E-21 9.55E-21 9.56E-21 9.56E-21

6.36E+02 0.00E+00 6.07E-22 2.57E-22 7.82E-23 6.05E-22 6.07E-22 6.07E-22 6.07E-22

6.73E+02 0.00E+00 3.28E-23 1.43E-23 5.15E-24 3.27E-23 3.28E-23 3.28E-23 3.28E-23

7.12E+02 0.00E+00 1.50E-24 6.70E-25 3.40E-25 1.49E-24 1.50E-24 1.50E-24 1.50E-24

7.53E+02 0.00E+00 5.71E-26 2.59E-26 1.65E-26 5.70E-26 5.71E-26 5.71E-26 5.71E-26

7.97E+02 0.00E+00 1.80E-27 8.37E-28 6.64E-28 1.79E-27 1.80E-27 1.80E-27 1.80E-27

8.44E+02 0.00E+00 4.63E-29 2.18E-29 1.85E-29 4.62E-29 4.63E-29 4.63E-29 4.63E-29

9.93E+02 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

9.45E+02 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

1.00E+03 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

Probabilistic results summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\BFM INSITU UNCERTAINTY ANALYSIS\FCS BFM INSITU UA EU-154.RAD

Peak of the mean dose (averaged over observations) at graphical times

| Repetition | Time of peak mean dose Years | Peak mean dose mrem/yr |
|------------|---------------------------------|---------------------------|
| 1 | 0.000E+00 | 2.575E-01 |
| 2 | 0.000E+00 | 2.638E-01 |
| 3 | 0.000E+00 | 2.675E-01 |

Title : RESRAD Default Parameters
 Input File : FCS BFM INSITU UA EU-154.RAD

Coefficients for peak All Pathways Dose

| Coefficient = | PCC | SRC | PRCC | SRRC |
|---------------|-----|-----|------|------|
| Repetition = | 1 | 1 | 1 | 1 |

Description of Probabilistic Variable

| | Sig Coeff | Sig Coeff | Sig Coeff | Sig Coeff |
|--|-----------|-----------|-----------|-----------|
| Contaminated zone erosion rate | 14 -0.02 | 14 -0.02 | 5 -0.08 | 5 -0.03 |
| Contaminated zone b parameter | 2 -0.09 | 2 -0.09 | 10 -0.07 | 10 -0.03 |
| Evapotranspiration coefficient | 7 -0.04 | 7 -0.04 | 11 0.06 | 11 0.02 |
| Wind Speed | 6 0.04 | 6 0.04 | 6 -0.08 | 6 -0.03 |
| Runoff coefficient | 5 -0.06 | 5 -0.06 | 12 -0.04 | 12 -0.02 |
| b Parameter of Unsaturated zone 1 | 16 -0.01 | 16 -0.01 | 17 0.02 | 17 0.01 |
| Mass loading for inhalation | 17 0.01 | 17 0.01 | 14 -0.04 | 14 -0.01 |
| Indoor dust filtration factor | 11 0.03 | 11 0.03 | 16 -0.02 | 16 -0.01 |
| Depth of soil mixing layer | 10 -0.03 | 10 -0.03 | 7 0.08 | 7 0.03 |
| Depth of roots | 8 -0.04 | 8 -0.04 | 2 0.37 | 2 0.15 |
| Wet weight crop yield of fruit, grain and non-leafy vegetables | 4 0.08 | 4 0.08 | 9 0.07 | 9 0.03 |
| Weathering removal constant of all vegetation | 15 0.01 | 15 0.01 | 4 -0.08 | 4 -0.03 |
| Wet foliar interception fraction of leafy vegetables | 12 -0.02 | 12 -0.02 | 15 0.03 | 15 0.01 |
| Humidity in air | 3 0.09 | 3 0.08 | 8 0.07 | 8 0.03 |
| Cover erosion rate | 1 0.17 | 1 0.17 | 3 0.22 | 3 0.09 |
| Kd of Eu-154 in Contaminated Zone | 9 -0.04 | 9 -0.04 | 1 -0.92 | 1 -0.90 |
| Kd of Eu-154 in Saturated Zone | 13 -0.02 | 13 -0.02 | 13 0.04 | 13 0.02 |

R-SQUARE 0.06 0.06 0.85 0.85

-Rank is set to zero if the dose is zero or the correlation matrix is singular.

-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

Title : RESRAD Default Parameters
 Input File : FCS BFM INSITU UA EU-154.RAD

Coefficients for peak All Pathways Dose

| Coefficient = | PCC | SRC | PRCC | SRRC |
|---------------|-----|-----|------|------|
| Repetition = | 2 | 2 | 2 | 2 |

| Description of Probabilistic Variable | Sig Coeff | Sig Coeff | Sig Coeff | Sig Coeff |
|--|-----------|-----------|-----------|-----------|
| Contaminated zone erosion rate | 8 -0.02 | 8 -0.02 | 16 0.01 | 16 0.00 |
| Contaminated zone b parameter | 9 0.01 | 9 0.01 | 9 0.03 | 9 0.01 |
| Evapotranspiration coefficient | 16 -0.01 | 16 0.00 | 14 0.02 | 14 0.01 |
| Wind Speed | 3 0.06 | 3 0.06 | 11 -0.02 | 11 -0.01 |
| Runoff coefficient | 11 0.01 | 11 0.01 | 17 0.00 | 17 0.00 |
| b Parameter of Unsaturated zone 1 | 14 -0.01 | 14 -0.01 | 5 -0.05 | 5 -0.02 |
| Mass loading for inhalation | 13 -0.01 | 13 -0.01 | 4 -0.06 | 4 -0.02 |
| Indoor dust filtration factor | 4 -0.05 | 4 -0.05 | 7 -0.04 | 7 -0.01 |
| Depth of soil mixing layer | 2 0.07 | 2 0.07 | 8 -0.04 | 8 -0.01 |
| Depth of roots | 12 -0.01 | 12 -0.01 | 2 0.45 | 2 0.18 |
| Wet weight crop yield of fruit, grain and non-leafy vegetables | 10 0.01 | 10 0.01 | 15 0.01 | 15 0.00 |
| Weathering removal constant of all vegetation | 15 -0.01 | 15 -0.01 | 13 -0.02 | 13 -0.01 |
| Wet foliar interception fraction of leafy vegetables | 5 0.05 | 5 0.04 | 6 0.04 | 6 0.02 |
| Humidity in air | 17 0.00 | 17 0.00 | 10 -0.03 | 10 -0.01 |
| Cover erosion rate | 1 0.17 | 1 0.17 | 3 0.19 | 3 0.07 |
| Kd of Eu-154 in Contaminated Zone | 7 -0.02 | 7 -0.02 | 1 -0.93 | 1 -0.91 |
| Kd of Eu-154 in Saturated Zone | 6 0.03 | 6 0.03 | 12 0.02 | 12 0.01 |
| R-SQUARE | 0.04 | 0.04 | 0.87 | 0.87 |

-Rank is set to zero if the dose is zero or the correlation matrix is singular.

-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

Title : RESRAD Default Parameters
 Input File : FCS BFM INSITU UA EU-154.RAD

Coefficients for peak All Pathways Dose

| Coefficient = | PCC | SRC | PRCC | SRRC |
|---------------|-----|-----|------|------|
| Repetition = | 3 | 3 | 3 | 3 |

Description of Probabilistic Variable

| | Sig | Coeff | Sig | Coeff | Sig | Coeff | Sig | Coeff |
|--|-----|-------|-----|-------|-----|-------|-----|-------|
| Contaminated zone erosion rate | 13 | 0.01 | 13 | 0.01 | 10 | -0.03 | 10 | -0.01 |
| Contaminated zone b parameter | 14 | -0.01 | 14 | -0.01 | 15 | 0.01 | 15 | 0.01 |
| Evapotranspiration coefficient | 15 | 0.00 | 15 | 0.00 | 14 | -0.02 | 14 | -0.01 |
| Wind Speed | 3 | -0.06 | 3 | -0.06 | 13 | -0.02 | 13 | -0.01 |
| Runoff coefficient | 4 | -0.06 | 4 | -0.05 | 4 | -0.08 | 4 | -0.03 |
| b Parameter of Unsaturated zone 1 | 16 | 0.00 | 16 | 0.00 | 12 | -0.03 | 12 | -0.01 |
| Mass loading for inhalation | 2 | 0.11 | 2 | 0.10 | 8 | -0.05 | 8 | -0.02 |
| Indoor dust filtration factor | 9 | -0.03 | 9 | -0.03 | 5 | -0.06 | 5 | -0.02 |
| Depth of soil mixing layer | 17 | 0.00 | 17 | 0.00 | 16 | 0.01 | 16 | 0.00 |
| Depth of roots | 5 | 0.05 | 5 | 0.05 | 2 | 0.43 | 2 | 0.17 |
| Wet weight crop yield of fruit, grain and non-leafy vegetables | 6 | -0.05 | 6 | -0.04 | 9 | 0.04 | 9 | 0.01 |
| Weathering removal constant of all vegetation | 11 | -0.01 | 11 | -0.01 | 11 | -0.03 | 11 | -0.01 |
| Wet foliar interception fraction of leafy vegetables | 10 | 0.02 | 10 | 0.01 | 17 | 0.00 | 17 | 0.00 |
| Humidity in air | 7 | -0.03 | 7 | -0.03 | 7 | 0.05 | 7 | 0.02 |
| Cover erosion rate | 1 | 0.22 | 1 | 0.22 | 3 | 0.22 | 3 | 0.08 |
| Kd of Eu-154 in Contaminated Zone | 8 | -0.03 | 8 | -0.03 | 1 | -0.93 | 1 | -0.91 |
| Kd of Eu-154 in Saturated Zone | 12 | -0.01 | 12 | -0.01 | 6 | -0.05 | 6 | -0.02 |
| R-SQUARE | | 0.07 | | 0.07 | | 0.87 | | 0.87 |

-Rank is set to zero if the dose is zero or the correlation matrix is singular.

-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.