

Title : RESRAD Default Parameters

File : FCS BFM INSITU UA FE-55.RAD

## Regression Coefficients for Peak All Pathways

| Description of Probabilistic Variable                          | Repetition = |       |       | 1     |       |       | 2     |       |       | 3     |       |       | Position |          |  |
|--|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|----------|--|
|  | PRCC         | PRCC  | PRCC  | SRRC  | SRRC  | SRRC  | PCC   | PCC   | PCC   | SRC   | SRC   | SRC   | in       | Variable |  |
| Weathering removal constant of all vegetation                  | -0.95        | -0.95 | -0.96 | -0.77 | -0.79 | -0.80 | -0.89 | -0.89 | -0.90 | -0.74 | -0.75 | -0.76 |          | 12       |  |
| Depth of roots   | 0.91         | 0.90  | 0.91  | 0.54  | 0.53  | 0.52  | 0.81  | 0.80  | 0.81  | 0.52  | 0.50  | 0.51  |          | 10       |  |
| Wet foliar interception fraction of leafy vegetables           | 0.50         | 0.45  | 0.55  | 0.14  | 0.13  | 0.16  | 0.38  | 0.32  | 0.37  | 0.15  | 0.13  | 0.15  |          | 13       |  |
| Wet weight crop yield of fruit, grain and non-leafy vegetables | -0.45        | -0.39 | -0.40 | -0.13 | -0.11 | -0.11 | -0.34 | -0.33 | -0.26 | -0.14 | -0.13 | -0.10 |          | 11       |  |
| Mass loading for inhalation                                    | 0.06         | 0.07  | 0.05  | 0.02  | 0.02  | 0.01  | -0.01 | 0.05  | 0.06  | 0.00  | 0.02  | 0.02  |          | 7        |  |
| Depth of soil mixing layer                                     | -0.01        | -0.04 | -0.06 | 0.00  | -0.01 | -0.02 | -0.05 | 0.01  | -0.03 | -0.02 | 0.00  | -0.01 |          | 9        |  |
| Contaminated zone b parameter                                  | 0.00         | 0.06  | 0.05  | 0.00  | 0.01  | 0.01  | 0.02  | 0.06  | 0.00  | 0.01  | 0.02  | 0.00  |          | 2        |  |
| Cover erosion rate   | -0.04        | -0.04 | -0.01 | -0.01 | -0.01 | 0.00  | -0.04 | 0.06  | -0.07 | -0.01 | 0.02  | -0.03 |          | 15       |  |
| Humidity in air  | -0.04        | 0.02  | -0.07 | -0.01 | 0.00  | -0.02 | -0.01 | 0.05  | -0.09 | 0.00  | 0.02  | -0.03 |          | 14       |  |
| b Parameter of Unsaturated zone 1                              | -0.06        | 0.06  | 0.09  | -0.02 | 0.01  | 0.02  | -0.09 | 0.02  | 0.10  | -0.03 | 0.01  | 0.04  |          | 6        |  |
| Kd of Fe-55 in Saturated Zone                                  | 0.03         | -0.02 | 0.06  | 0.01  | -0.01 | 0.01  | 0.01  | -0.05 | -0.01 | 0.01  | -0.02 | 0.00  |          | 17       |  |
| Indoor dust filtration factor                                  | 0.04         | 0.01  | -0.01 | 0.01  | 0.00  | 0.00  | 0.06  | 0.03  | 0.01  | 0.02  | 0.01  | 0.00  |          | 8        |  |
| Evapotranspiration coefficient                                 | -0.01        | 0.03  | -0.07 | 0.00  | 0.01  | -0.02 | 0.05  | 0.06  | -0.07 | 0.02  | 0.02  | -0.03 |          | 3        |  |
| Contaminated zone erosion rate                                 | 0.04         | -0.02 | -0.05 | 0.01  | -0.01 | -0.01 | -0.02 | -0.04 | -0.05 | -0.01 | -0.01 | -0.02 |          | 1        |  |
| Wind Speed   | 0.07         | -0.09 | -0.01 | 0.02  | -0.02 | 0.00  | -0.02 | -0.14 | -0.04 | -0.01 | -0.05 | -0.01 |          | 4        |  |
| Runoff coefficient   | -0.06        | 0.04  | 0.01  | -0.02 | 0.01  | 0.00  | -0.01 | 0.00  | -0.03 | 0.00  | 0.00  | -0.01 |          | 5        |  |
| Kd of Fe-55 in Contaminated Zone                               | 0.05         | -0.01 | -0.02 | 0.01  | 0.00  | -0.01 | 0.02  | -0.09 | 0.00  | 0.01  | -0.03 | 0.00  |          | 16       |  |

The coefficient of determination ranges from 0 to 1; it provides a measure of the variation in the dependent variable (Dose or Risk)

that is explained by the variation in the independent variables under the assumed linear regression model.