

Title : RESRAD Default Parameters

File : FCS BURIED PIPE INSITU UA NI-59.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 | |
| | | | | 0.12 | 0.18 | 0.09 | | | | 0.15 | 0.08 | 0.08 | | | |
| | | | | | | | | | | | | | | List | |
| Depth of roots | -0.20 | -0.21 | -0.17 | -0.19 | -0.19 | -0.17 | -0.17 | -0.14 | -0.11 | -0.16 | -0.14 | -0.11 | | 10 | |
| Cover erosion rate | 0.16 | 0.16 | 0.13 | 0.16 | 0.14 | 0.12 | 0.19 | 0.04 | 0.10 | 0.18 | 0.03 | 0.09 | | 15 | |
| Well pump intake depth | -0.15 | -0.20 | -0.09 | -0.14 | -0.18 | -0.09 | -0.14 | -0.15 | -0.12 | -0.13 | -0.14 | -0.11 | | 18 | |
| Kd of Ni-59 in Saturated Zone | -0.11 | -0.18 | -0.09 | -0.11 | -0.16 | -0.08 | 0.04 | -0.03 | -0.06 | 0.03 | -0.03 | -0.06 | | 17 | |
| Evapotranspiration coefficient | 0.10 | 0.11 | 0.16 | 0.09 | 0.10 | 0.15 | 0.11 | 0.13 | 0.17 | 0.10 | 0.12 | 0.16 | | 3 | |
| Kd of Ni-59 in Contaminated Zone | 0.11 | 0.13 | 0.01 | 0.11 | 0.12 | 0.01 | 0.19 | 0.05 | -0.02 | 0.18 | 0.05 | -0.02 | | 16 | |
| Contaminated zone erosion rate | -0.04 | -0.10 | 0.00 | -0.04 | -0.09 | 0.00 | 0.13 | -0.03 | 0.02 | 0.13 | -0.03 | 0.02 | | 1 | |
| Runoff coefficient | 0.03 | 0.05 | 0.02 | 0.03 | 0.04 | 0.02 | 0.04 | 0.06 | 0.04 | 0.04 | 0.06 | 0.04 | | 5 | |
| Indoor dust filtration factor | -0.03 | -0.08 | 0.02 | -0.03 | -0.08 | 0.02 | -0.03 | -0.09 | 0.02 | -0.03 | -0.09 | 0.02 | | 8 | |
| b Parameter of Unsaturated zone 1 | -0.05 | 0.08 | 0.06 | -0.05 | 0.07 | 0.05 | -0.03 | 0.03 | 0.06 | -0.03 | 0.03 | 0.06 | | 6 | |
| Wet weight crop yield of fruit, grain and non-leafy vegetables | 0.00 | -0.08 | 0.00 | 0.00 | -0.08 | 0.00 | 0.01 | -0.08 | 0.01 | 0.01 | -0.08 | 0.01 | | 11 | |
| Depth of soil mixing layer | -0.06 | 0.05 | -0.07 | -0.05 | 0.05 | -0.06 | -0.05 | -0.03 | -0.08 | -0.04 | -0.03 | -0.08 | | 9 | |
| Weathering removal constant of all vegetation | 0.03 | -0.03 | 0.04 | 0.03 | -0.03 | 0.03 | 0.01 | -0.01 | 0.03 | 0.01 | -0.01 | 0.03 | | 12 | |
| Contaminated zone b parameter | 0.03 | 0.05 | -0.04 | 0.02 | 0.04 | -0.04 | 0.04 | 0.00 | 0.01 | 0.04 | 0.00 | 0.01 | | 2 | |
| Wet foliar interception fraction of leafy vegetables | -0.06 | 0.04 | -0.01 | -0.05 | 0.04 | -0.01 | 0.00 | 0.01 | -0.05 | 0.00 | 0.01 | -0.05 | | 13 | |
| Mass loading for inhalation | 0.00 | 0.01 | -0.02 | 0.00 | 0.01 | -0.02 | 0.03 | 0.00 | -0.02 | 0.03 | 0.00 | -0.02 | | 7 | |
| Humidity in air | 0.02 | 0.00 | -0.03 | 0.02 | 0.00 | -0.03 | 0.04 | 0.02 | -0.03 | 0.03 | 0.02 | -0.03 | | 14 | |
| Wind Speed | -0.03 | 0.01 | 0.02 | -0.03 | 0.01 | 0.02 | -0.05 | 0.02 | 0.05 | -0.05 | 0.02 | 0.04 | | 4 | |

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.