Preliminary Remediation Goals (PRG) and Dose Compliance Concentrations (DCC) Calculators

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PRG: http://epa-prgs.ornl.gov/radionuclides
DCC: http://epa-dccs.ornl.gov/

PRG Calculator
- Calculates risk-based, preliminary remediation goals (PRGs) for use in radiation risk assessments at CERCLA sites. Useful when ARARs (Applicable or Relevant and Appropriate Requirements – regulations set by governments) are not available.
- Calculates cleanup concentrations based on a target cancer risk of $1 \times 10^{-6}$, except for MCLs in soil-to-groundwater scenario.
- Not cleanup standards – used for site screening and initial cleanup goals.

DCC Calculator
- Calculates dose compliance concentrations (DCCs) for use in radiation risk assessments at CERCLA sites.
- Superfund is NOT a dose-based program.
- DCCs are useful for demonstrating compliance to ARARs.

Conceptual Site Model

Using the Calculators
- Select scenario: 7 exposure scenarios below (air and 2D scenarios not pictured).
- Select PRG/DCC type: use default parameters or site-specific. Defaults useful for initial site assessments. If data is collected, may use site-specific data to set more accurate cleanup goals.
- Select isotopes of interest: Select the radionuclides and/or radionuclide decay chains present at site.
  +D includes activity of daughter nuclides (100 yr).
  +E includes activity of daughter nuclides (1000 yr).

Outdoor (or Composite) Worker: Soil Exposure
Resident: Soil Exposure
Agricultural Soil Exposure
Tapwater Ingestion Exposure
Fish Ingestion Exposure

Soil to Groundwater Exposure

Conceptual Site Model of Quantified Exposure Pathways for radionuclide PRGs:
Black lines are direct exposure routes. Black dashed lines are direct and indirect exposure routes.
Red lines are indirect exposure routes.