



Building Preliminary Remediation Goals (BPRG) and Building Dose Compliance Concentrations (BDCC) Calculators



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BPRG: <http://epa-bprg.ornl.gov>

BDCC: <http://epa-bdcc.ornl.gov>

BPRG Calculator

- Calculates risk-based **building preliminary remediation goals (BPRGs)** for use in **radiation risk assessments** inside radioactively contaminated buildings. 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 1×10^{-6} .
- Not cleanup standards – used for site screening and initial cleanup goals.
- Applicable for residential and commercial/industrial indoor worker exposure scenarios.

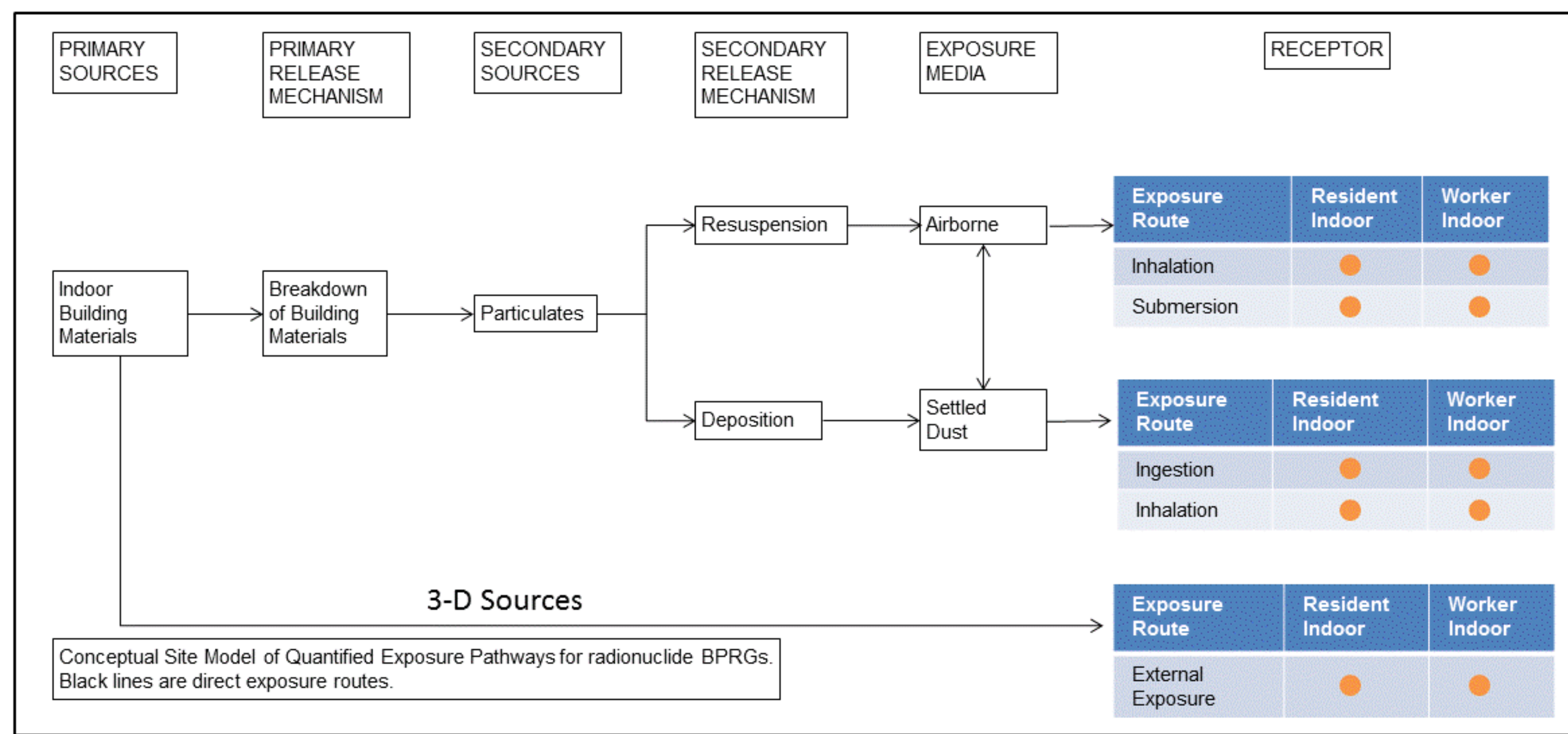
BDCC Calculator

- Calculates **building dose compliance concentrations (BDCCs)** for use in radioactively contaminated buildings.
- Superfund is **NOT** a dose-based program.
- DCCs are useful for demonstrating compliance to ARARs.

Using the Calculators

- Select scenario:** 8 exposure scenarios to right.
- 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 units:** units of activity in pCi or Bq.
- 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).

Conceptual Site Model



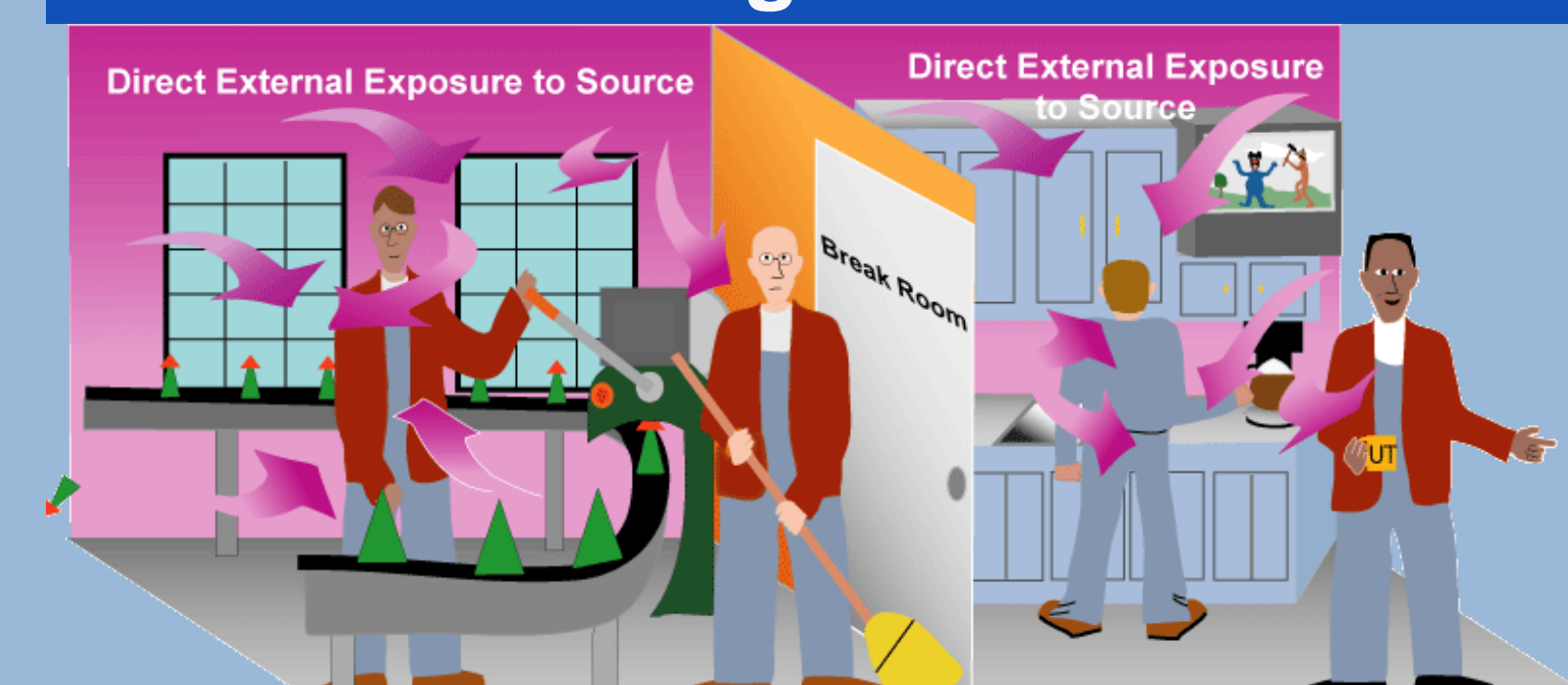
Indoor Worker: Settled Dust



Indoor Worker: Ambient Air



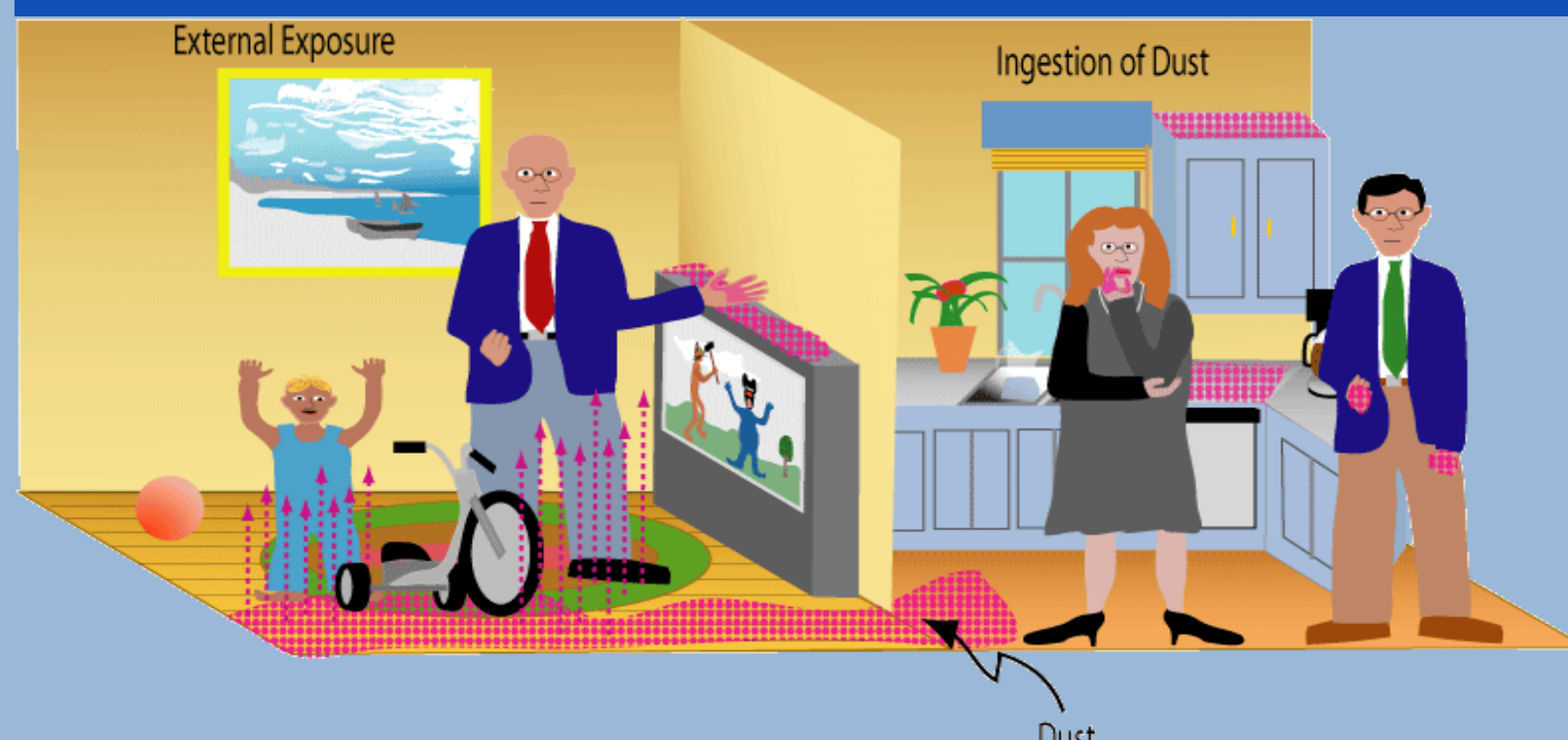
Indoor Worker: Contaminated Building Materials



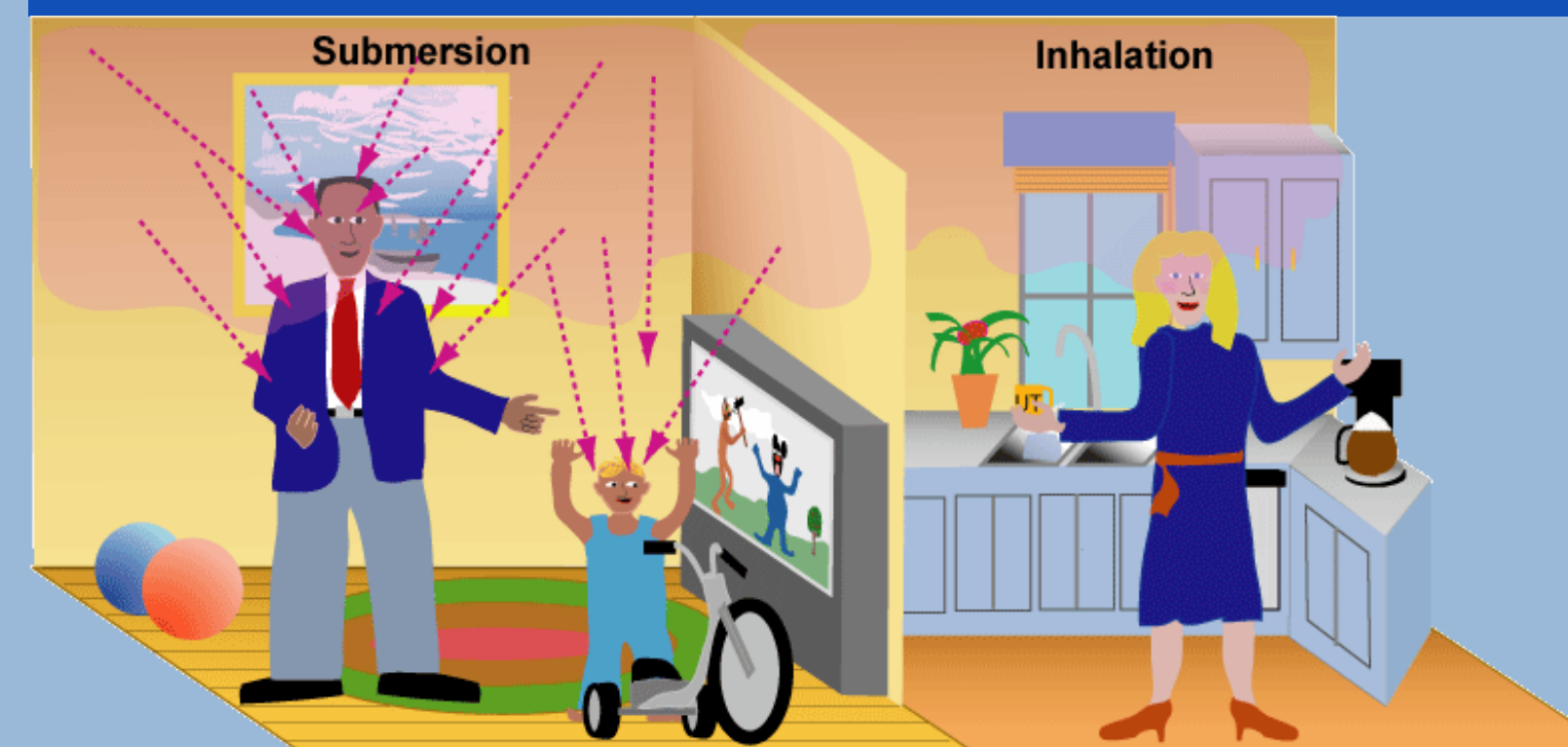
Indoor Worker: Settled Dust on Indoor Surfaces



Resident: Settled Dust



Resident: Ambient Air



Resident: Contaminated Building Materials



Resident: Settled Dust on Indoor Surfaces

