

# **Building Dose Compliance Concentration (BDCC) Calculator**

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



Stuart Walker - walker.stuart@epa.gov, (703) 603-8748 Office of Superfund Remediation and Technology Innovation, US Environmental Protection Agency

#### What is BDCC?

- BDCC stands for **building dose** compliance concentrations.
- BDCCs are cleanup levels that correspond to a specific dose of radiation in radioactively contaminated buildings.
- Superfund is **NOT** a dose-based program.
- Used for residential and commercial/industrial indoor worker exposure.

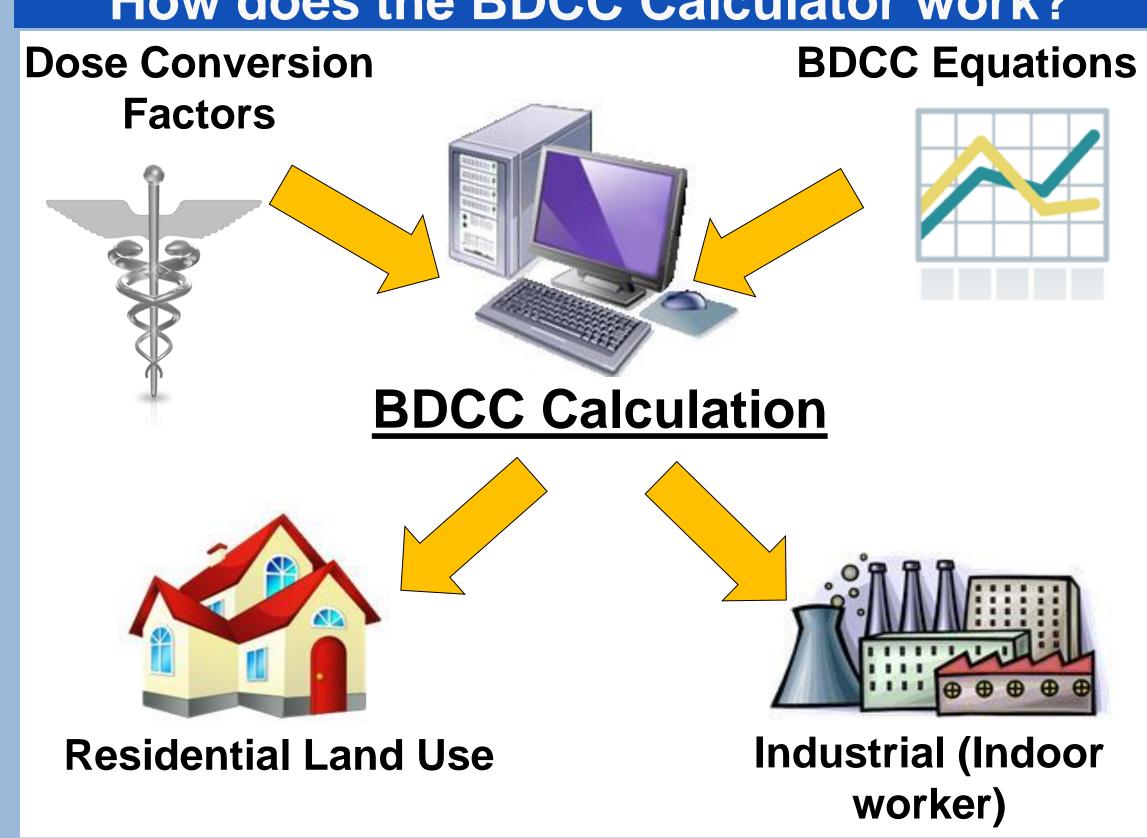
## **Resident: Settled Dust**

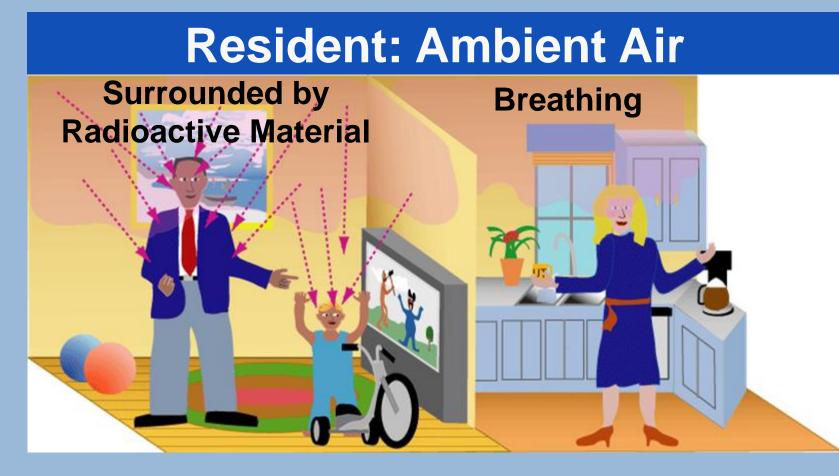


### **BDCC Calculator**

- The **BDCC Calculator** is a tool that allows EPA to calculate cleanup levels that correspond to a specific dose of radiation in radioactively contaminated buildings at a Superfund site. The calculator uses dose conversion factors (DCF) in calculating radiation dose.
  - **Dose** is the amount of radiation absorbed by a person's body.
  - **DCFs** use concentration of a radionuclide in soil, air, water, and food to determine the dose of radiation a person at a contaminated site is exposed to. DCFs also take into account the type of exposure (inhalation, ingestion, or external) in determining dose.
- Superfund takes into account cancer risk, not radiation dose, in deciding cleanup levels. The DCC calculator is useful to show compliance with previously existing regulation of cleanup levels that may be in place.
- Below are some exposure pathways considered by the DCC.

## How does the BDCC Calculator work?





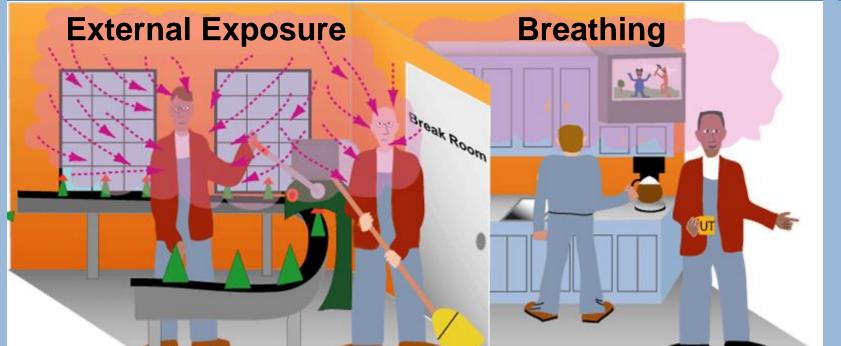
## **Resident: Contaminated Building Materials**



## **Indoor Worker: Contaminated Building Materials**



#### **Indoor Worker: Ambient Air**



#### Indoor Worker: Settled Dust

