

How much radiation will the public receive from the Clinch River Breeder Reactor Plant?

When the plant is in full operation, a person *standing at the plant boundary around-the-clock* would receive a total of only .03 millirem (mrem) per year from this source. This is equivalent to what the average American gets each year from exposure to such everyday items as color television, smoke detectors, and luminous dial watches. A person who lives more than two miles from the site will receive no measurable radiation due to operation of the plant.

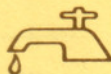
A mrem is the unit commonly used to measure radiation. It takes into account the effects of various kinds of radiation on the body. To gain some perspective of a mrem,

one mrem of exposure per year would be gained if a person

- moved to an elevation 100 feet higher
- increased food and liquid intake by 4%
- took a 4-to 5-day vacation in the Sierra Nevada Mountains.

The radiation exposure which an individual can expect varies according to location and activities. The average annual dose an American gets is 200 mrem.

One of the most significant radiation sources is cosmic rays from outer space. These rays lose strength as they pass through the earth's atmosphere so they are more intense at higher altitudes. Other natural radiation sources are the food and water that people consume, the earth itself, and the structures where individuals work and live. Diagnostic X-rays are a man-made source of radiation, as is television. Another way people increase their exposure to radiation is by jet travel.



XRAYS



COMPUTE YOUR OWN RADIATION DOSE

We live in a radioactive world. Radiation is all around us as a part of our natural environment. By filling out the form below, you will be able to compute approximately how much radiation you are exposed to every year. You can then compare this to what you might receive from the Clinch River Breeder Reactor Plant.

	Common Source of Radiation	Your Annual Inventory
WHERE YOU LIVE	Location: Cosmic radiation at sea level	44
	Elevation: Add 1 for every 100 feet of elevation	
	<i>Example: If you live in Cincinnati, add 5 (elevation 500 ft).</i>	
	Typical elevations: Pittsburgh 1200; Minneapolis 815; Atlanta 1050; Las Vegas 2000; Denver 5280; St. Louis 455; Salt Lake City 4400; Dallas 435; Bangor 20; Spokane 1890; Chicago 595. (Coastal cities are assumed to be zero, or sea level.)	
	Tennessee: Knoxville 890; Memphis 275; Nashville 450; Chattanooga 675.	
	House construction (based on 3/4 of time indoors)	
	Brick 45	
	Stone 50	
	Wood 35	
	Concrete 45	
	Ground: (based on 1/4 of the time outdoors) U.S. average	15
WHAT YOU EAT, DRINK, & BREATHE	Water	
	Food U.S. average	25
	Air	
	Weapons test fallout	4
HOW YOU LIVE	X ray diagnosis	
	Chest X ray 9	
	Lower gastrointestinal tract X-ray 500	
	Average U.S. Individual Dose 90	
	Jet airplane travel: For every 1500 miles add 1	
	Consumer Products: This includes radiation from such everyday items as color television, smoke detectors, and luminous dial watches03
Compare your annual dose to the U.S. Annual Average of 200 mrem.		
HOW CLOSE YOU LIVE TO CLINCH RIVER PLANT	At site boundary: 24 hours per day .03 mrem	
	Two miles away: 24 hours per day .001 mrem	
	Five miles away: 24 hours per day NONE	

THE CLINCH RIVER BREEDER REACTOR PLANT PROJECT

A STEP TOWARD ENERGY INDEPENDENCE

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