

Glossary

Alpha particle	Alpha particles are a type of ionizing radiation ejected by the nuclei of some unstable atoms. They are large subatomic fragments consisting of two protons and two neutrons. It is the nucleus of the element helium. Its main radiation hazard comes when it is ingested into the body. In contact with fast-growing membranes and living cells, it is positioned for maximum damage.
Beta particle	Beta particles are high-energy, high speed electrons or positrons emitted by certain types of radioactive nuclei such as potassium 40. The beta particles emitted are a form of ionizing radiation also known as beta rays. The high energy electrons have greater range of penetration than alpha particles but still much less than gamma rays.
Bioaccumulation	Refers to the accumulation of substances, such as pesticides, or other organic chemicals in an organism. Bioaccumulation occurs when an organism absorbs a toxic substance at a rate greater than that at which the substance is lost.
Gamma ray	Gamma rays have the smallest wavelengths and the most energy of any other wave in the electromagnetic spectrum. These waves are generated by radioactive atoms and in nuclear explosions. Gamma rays can kill living cells.
Gray	The unit “gray” measures the absorbed dose of radiation (D) absorbed by any material. The symbol for gray is Gy.
Half-life	Is the period of time it takes for a substance undergoing decay to decrease by half.
Negawatt	Negawatt power is a theoretical unit of power representing an amount of energy (measured in watts) saved. The energy saved is a direct result of energy conservation or increased efficiency.
Radioactivity	Particles which are emitted from nuclei as a result of nuclear instability. The most common types of radiation are called alpha, beta and gamma radiation.
Reclamation	The conversion of wasteland into land suitable for use for habitation or cultivation.
Sievert	The unit “sievert” measures the equivalent dose of radiation (H) supposed to have a damaging effect equivalent to the same dose of gamma rays. The symbol for sievert is Sv.