

What is radiation?

Everything around us is radioactive: the rocks that we walk on, the food that we eat, the air that we breath, even our own bodies contain radioactive material and they all emit radiation. There's radiation from the sky, the stars and the sun, and air stewardesses and air pilots receive more of this cosmic radiation on average than Sellafield Ltd workers in their daily jobs.

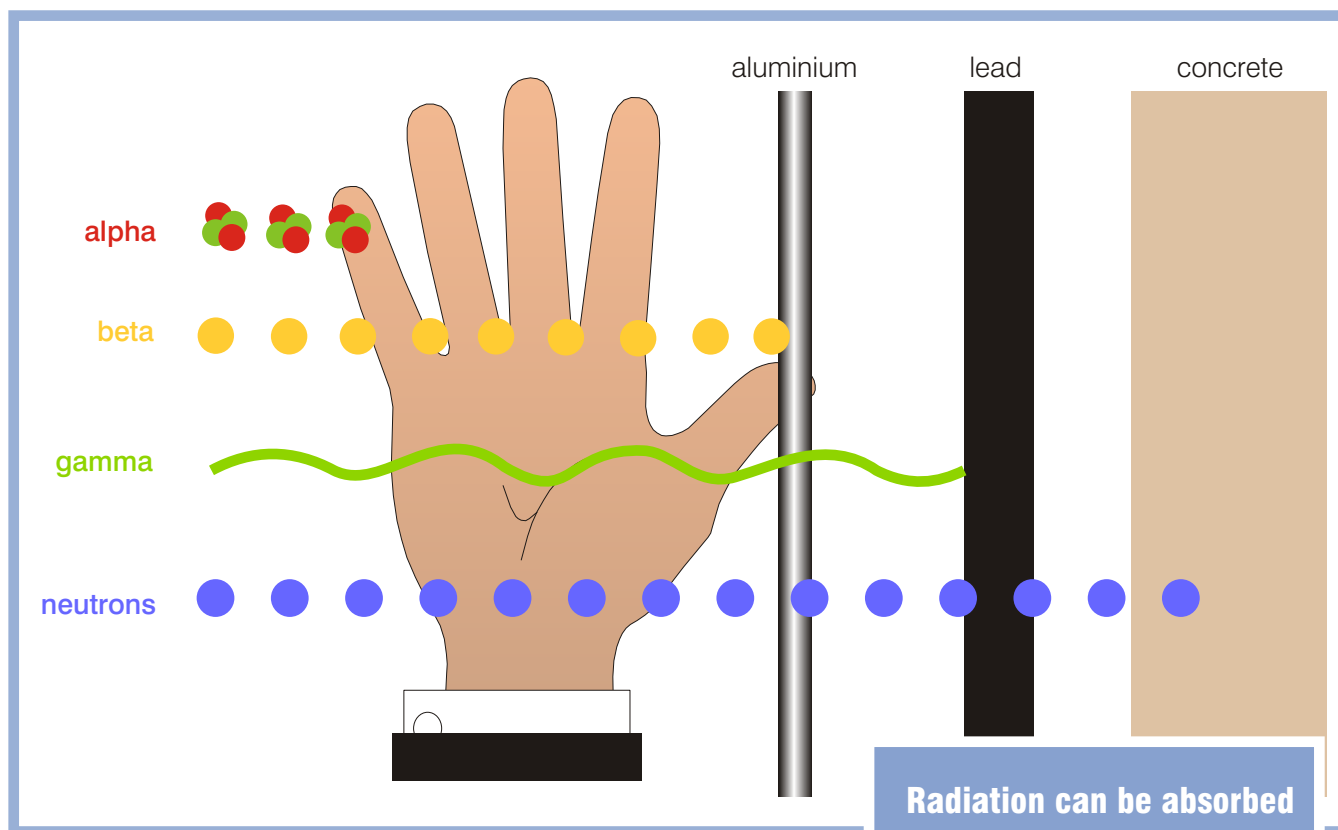


Diagram showing the properties of different types of radiation

Radiation takes different forms and can be divided into ionising and non-ionising. Non-ionising radiation is emitted from, for example, mobile phones, microwave ovens, television signals.

Ionising radiation is different. It can cause harm, and great care must be taken when working with ionising radiation.

Radiation can be absorbed by substances in its path. the thicker the substance, the more the radiation is absorbed



The health & safety of the general public, our people and everyone who works for is vitally important.

Film badge for monitoring radiation

Alpha, beta and gamma ionising radiation is emitted from various materials used in nuclear power stations. Radiation is emitted as either particles or waves.

People working in (or visiting) parts of Sellafield site where they could become exposed to radiation wear film badges. These badges do not protect people from radiation; the badges monitor and measure any radiation that workers or visitors in 'controlled' areas might have come into contact with.

At the end of the working day, staff working in what are called 'controlled' areas (areas where there are low-levels of radiation or contamination) need to monitor themselves. Changing rooms are fitted with walkthrough monitors for this purpose.

Electronic personal dosimeters are also used to measure radiation and tell people just how much radiation they are receiving at work at Sellafield during each part of the working day.

The nuclear discharges from Sellafield site are well within all the limits set by the Government and by nuclear industry regulators. These are limits that are set to maximize safety for the workforce, the local community and the region. Discharges into the sea and air are constantly measured to ensure that people and the environment are not harmed. The radiation exposure that people receive is monitored to ensure that it meets all the limits set down by the regulators and by internationally accepted practice.

If the radiation level that a worker may receive at Sellafield site is combined with the natural radiation around Cumbria, it adds up to less than half the radiation that a person living in the South West of England would receive naturally.



Female using IPM in changeroom - monitoring



Sellafield Ltd

Sellafield Site

Sellafield, Seascale, Cumbria CA20 1PG

Tel: +44 (0)19467 28333 **Fax:** +44 (0)19467 28987

www.sellafieldsites.com