

Parham Gamma Radiation

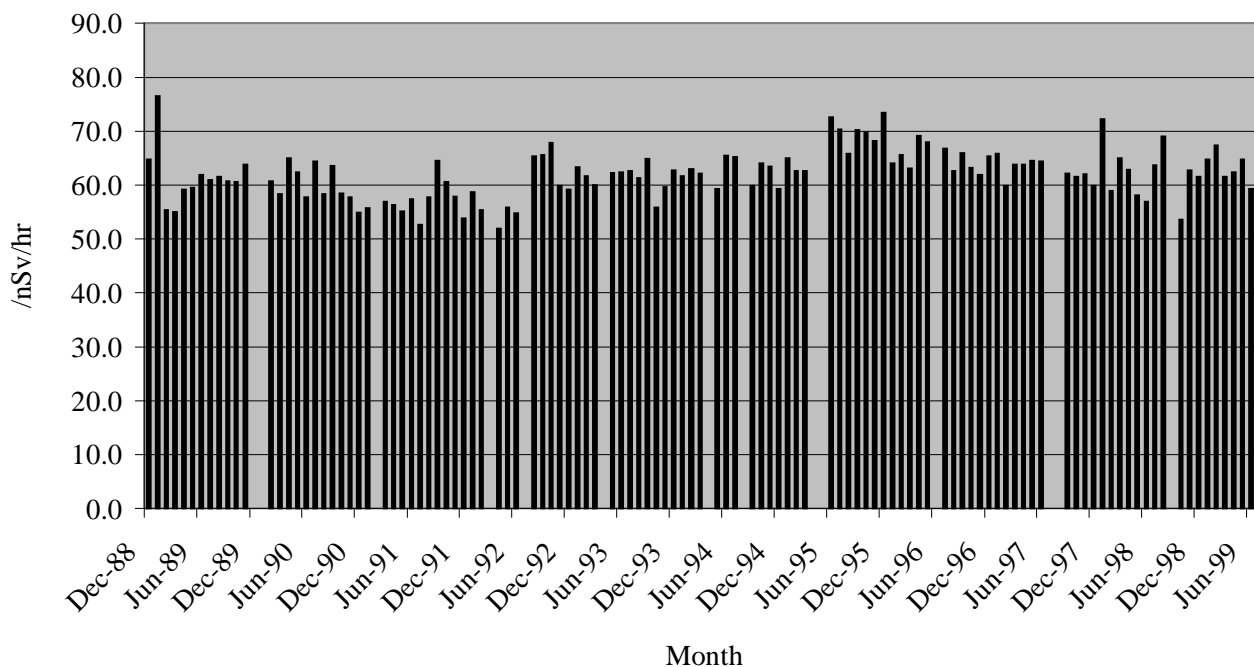
Dec 1988 to Jul 1999

Readings of background gamma radiation have been taken monthly on North Green, Parham, since Dec 1988. Background gamma radiation emanates from various sources, mostly the Sun and the earth's rocks, with a little from human activities such as nuclear power stations. Volunteers organised by the Coastal Unit Recording Irradiation of the Environment (CURIE) take gamma readings at one of seventeen sites in East Suffolk every one or two days, with the meter circulating back to each site monthly. Alpha and beta radiation, which have a lot shorter range than gamma radiation, are not measured.

CURIE was set up in 1987 following the explosion of one of the nuclear reactors at Chernobyl in the former Soviet Union. Soon after that event, high radiation levels were present over the UK, but the nuclear industry delayed warning the public for a week, preventing anyone from taking precautions. To ensure this wouldn't happen again, CURIE decided to take regular readings independent of government or the nuclear industry by purchasing and maintaining its own Geiger counter.

A chart of the North Green readings is shown below. The odd month shows no reading because the meter is regularly sent away for re-calibration. The unit of measurement is the nanosievert per hour which is a measure of the biological impact of radiation on living cells. The Parham readings (averaging 62nSv/hr) are typical of those around East Suffolk (all around 70nSv/hr). The exceptions are readings from close to the nuclear power stations at Sizewell where man-made gamma radiation levels are significantly higher than natural background. Gamma readings outside the station fence at Sizewell can be ten to fifteen times the East Suffolk average depending on how many reactors are operating, but this is still well below a level that could be considered harmful to health.

Parham, North Green: Gamma Absorbed Dose Rate / nSv/hr



For the record, the readings are taken over an automatically timed ten minute period in the stack-yard of Home Farm, North Green, Parham (CURIE site #8), at Ordnance Survey grid reference TM 630955 262290 with the middle of the Geiger-Müller tube 1m above the ground. More details of the experimental technique and exact site and reading data are available from any of the CURIE reports [CURIE].

Bob Briscoe, Aug 1999

Reference

[CURIE] "Independent Gamma-Radiation Survey Report for 12 months to <mmm yyyy>, in the Sizewell Area," Coastal Unit Recording Irradiation of the Environment, CURIE R00<nn>.