

Report to West Cumbria Sites Stakeholder Group
on
Meeting of the Environmental Health Subcommittee,
26 November 2009, Civic Hall, Cleator Moor

- At this public meeting the Environmental Health Subcommittee of West Cumbria Sites Stakeholder Group reviewed levels of Sellafield radioactivity in the West Cumbrian environment on the basis of the most recent reports (for calendar year 2008) from the Centre for Environment, Fisheries and Aquaculture Science and from Sellafield Limited.
- Sellafield radioactivity makes a small contribution to annual radiation doses received by individual members of the public, depending on their activities and dietary habits. Regular surveys of activities and habits are used, together with measurements of environmental radioactivity, to estimate doses for groups of consumers likely to be most affected.
- Sellafield discharges are now very small compared with those typical of 30 years ago. For this reason, historic radioactivity contributes nearly ninety-nine percent of today's radiation dose estimates. From time to time, remobilisation of old sediments contributes to increased estimates of radiation dose but a general slow decline is to be expected.
- The highest doses reported were for a local group of very high consumers of seafood (consuming nearly 100 kilograms per year). It is estimated that in 2008, they received a dose of about 0.23 millisieverts from Sellafield radioactivity in seafood (about the same as estimated for 2006 and 2007).
- Discharges from the former phosphate works at Whitehaven produce increased levels of natural radioactivity in the marine environment. The works were demolished in 2004 and discharges have ceased. However, the contribution to the dose of seafood consumers from this enhanced natural radioactivity greatly exceeds that from Sellafield discharges. It is estimated as 0.39 millisieverts for 2008 (more than in 2005, 6 and 7 but less than in 2004). Such variations in doses to seafood consumers arise partly by movements of sediments containing radioactivity from earlier periods and partly by changes in seafood consumption.
- Estimates of doses from high consumption of seafood at places more distant from Sellafield did not exceed 0.05 millisieverts. Some Ribble houseboat dwellers were estimated to have received about 0.13 millisieverts from external radiation emitted by estuary floor sediments.
- All such dose estimates can be compared with 2.2mSv average UK background dose received from natural sources of radiation.

Action: Early in 2009, EHSC sought advice of COMARE (Committee on Medical Aspects of Radiation in the Environment) on a study of rates of leukaemia near nuclear power stations in Germany. The Department of Health subsequently requested COMARE 'to conduct a review of recent publications on the incidence of childhood leukaemia in the vicinity of nuclear power stations'. Their report is awaited.

John Haywood, EHSC Chair