West Cumbria Sites
Stakeholder Group

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Environmental Health Subcommittee of West Cumbria Sites Stakeholder Group
25 November 2010, Civic Hall, Cleator Moor

The Environmental Health Subcommittee of West Cumbria Sites Stakeholder Group met recently to review levels of Sellafield radioactivity in the West Cumbrian environment.

The review was conducted on the basis of the most recent reports, for calendar year 2009, from the Centre for Environment Fisheries and Aquaculture Science, the Food Standards Agency and the Environment Agency, 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 of 30-40 years ago but some of that earlier radioactivity remains in the marine environment.

For this reason, current discharges contribute a very small proportion of the radiation dose estimates for 2009. 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 representative of consumers of very large quantities of seafood.

It is estimated that in 2009, they received a dose of about 200 microsieverts from Sellafield radioactivity in seafood, including a contribution due to external radiation over sediments, which is down from last year (2008's) figure of 230 microsieverts.

Variations in doses to seafood consumers arise partly from movements of sediments containing radioactivity from earlier periods and partly from changes in the amounts of seafood consumption.

Discharges from the former phosphate works at Whitehaven raised levels of natural radioactivity in the marine environment and it is estimated that this made a further contribution of about 180 microsieverts to the dose of intensive sea food consumers.

Estimates of doses to high-rate seafood consumers at places more distant from Sellafield did not exceed 50 microsieverts.

Some Ribble houseboat dwellers were estimated to have received about 130 microsieverts from external radiation emitted by estuary floor sediments. Some fishermen handling nets or pots received a skin dose estimated as equivalent to 61 microsieverts.

All such dose estimates can be compared with 2,200 microsieverts average background dose received from natural sources of radiation in the United Kingdom.

John Haywood, Chairman