

NDAWG PAPER 5-04: THE PRESENTATION OF THE RESULTS OF A PROSPECTIVE DOSE ASSESSMENT TO THE PUBLIC

Possible future radiation doses are estimated as part of the process of evaluating proposed discharges of radionuclides to the environment. In estimating such prospective doses the emphasis is generally on those people in the population who are most exposed, known as the critical group. In 2000 the Food Standards Agency (FSA) held a consultative exercise on dose assessments (CEDA), which considered the methods for assessing the impact of radiation doses on the public. One point that arose through the consultation exercise was the need for information on radiation doses to be provided to the public that they could apply to their own lives. This study aimed to address this point as it considered ways in which people can be informed about their own exposure to radiation. The project was a pilot study and considered only two nuclear sites. The objectives of the project were: to determine the extent to which members of the public are interested in obtaining information on their radiation doses and what sort of information they want; to identify feasible options for enabling members of the public to get an individual dose assessment; to test the feasibility, effectiveness and resource implications of presenting the results of a prospective dose assessment to the public.

Pilot focus groups were run at two different licensed nuclear sites, Harwell and Hinkley Point. At each site, two focus groups were held involving members of the site liaison committees and people from the wider local community. The aim of the focus groups was to explore the provision of information to communities by regulators generally, of the likely demand for individual prospective dose data, and of the practical issues associated with providing it. All the focus groups conducted were considered to have been successful, in that they were interesting and lively sessions that generated a good range of ideas and insights.

There were a limited number of people participating in the focus groups at the two sites, and so any conclusions need to be confirmed with a wider sample before being acted upon. One of the main points to emerge was that regulation of nuclear sites generally was felt to be complex and not well understood. The role of FSA in relation to the monitoring of nuclear licensed sites was not clear. The public focus groups in particular distinguished between 'regulatory bodies' and 'independent agencies' able to act as 'public champions'. Information from the latter would be more trusted. It was not clear that the FSA was seen to be either of these types of bodies by the participants in the public focus groups.

Two different dose assessment options were considered, a scenario based approach and a more detailed dose calculator approach for use by members of the public. Both studies required local information such as on

sources of locally produced food. This part of the study demonstrated that it was possible to obtain the necessary information and to develop approaches to enable people to obtain a personalised dose assessment. There was support for both a map based approach and a more detailed dose calculator. Obtaining local information for the area considered was time consuming and required local knowledge. The information is also likely to change on a relatively short timescale.

The main conclusions of the study were that generally people welcome information on health risks provided it is clear and open. Most people would not feel the need to seek out information on what their radiation doses are but felt that such information should be available for the few people who want it. Local 'independent' sources of information are felt to be the most reliable. It is not helpful to simply give a level of radioactivity or anything else in food without explaining what it means and whether it is safe. It is important to say where further information could be obtained.

A number of recommendations are made. From this study it is clear that there is interest from the public in obtaining good quality information on possible health hazards, including from exposure to radiation. If information is provided on radiation doses then these should be for all sources and put into context in terms of statutory limits and exposures elsewhere (eg, in relation to UK standards). Therefore, it may need to be done jointly with the environment agencies and the Nuclear Installations Inspectorate (Health and Safety Executive), with NRPB providing information about natural and medical sources of radiation. Providing personalised individual dose assessments requires the collection of accurate local information (eg relating to the production and consumption of food or the extent to which people visit particular locations, such as riverbanks). Such information is site-specific and liable to change and if people are to have confidence in such assessments the information would need to be kept up to date. It would therefore require significant resources to obtain and keep updating such information for all relevant sites in the UK. Personalised dose assessments should only be pursued if there is further evidence that the level of demand justifies the likely costs. There are practical difficulties associated with obtaining a personalised dose assessment, both in collecting the necessary information and in presenting the doses in such a way that does not cause undue concern. It is, therefore, not recommended that the methodologies used in this pilot study to obtain a personalised prospective dose assessment from authorised discharges are extended to other sites in the UK. It would be helpful for agencies, such as the FSA, to provide information, training and backup to enable local sources to field questions on radiation in general, and specifically in food, together with the associated health risks. This should include information on the role of the FSA and other bodies in relation to radiological issues. When information is provided to the public, trials should be held to ensure that it is meeting the target audience's need and is clearly understood.