

MANAGING RADIOACTIVE WASTE SAFELY: 2003 PROGRESS REPORT TO THE SELECT COMMITTEE ON ENVIRONMENT, FOOD AND RURAL AFFAIRS

Introduction

This is the second progress report to the Environment, Food and Rural Affairs (EFRA) Committee on implementation of the “Managing Radioactive Waste Safely” programme. It covers the 2003 calendar year.

Scope of the Managing Radioactive Waste Safely programme and this report

1. The “Managing Radioactive Waste Safely” consultation paper¹, issued by UK Government and the devolved administrations in September 2001, asked for views on possible approaches to deciding policy for the long-term management of the United Kingdom’s (UK’s) solid radioactive waste. Responses to the consultation were discussed in last year’s progress report to the Environment, Food and Rural Affairs (EFRA) Committee². The key feature of the work during 2003, that is discussed in more detail in the following sections of this report, has been the establishment of the Committee on Radioactive Waste Management (CoRWM) to oversee a comparative assessment of the policy options available for the long-term management of the UK’s waste.

2. The “Managing Radioactive Waste Safely” consultation document also raised a number of more specific questions relating to the management of the UK’s radioactive waste. These included:

- policy to be adopted for the long-term management of separated plutonium and uranium, including whether some proportion of the UK’s stockpiles should be considered a waste;
- storage of radioactive waste on nuclear sites, and its regulation;
- the general approach to decommissioning of nuclear sites;
- policy for waste substitution in respect of overseas spent nuclear fuel reprocessed in the UK;

- arrangements for dealing with redundant, or spent, radioactive sources; and
 - the principle of segregating radioactive waste types by half-life to help with its long-term management.
3. There is discussion of these supplementary issues also in the remainder of this report.

The establishment of CoRWM during 2003

4. Last year's progress report to the EFRA Committee reported UK Government's and the devolved administrations' intent to set up CoRWM.

5. This led to advertisements for a Chair and Members to serve on the committee being run in the Daily Telegraph, the Economist, the Guardian, the Glasgow Herald, the Irish News, the New Scientist, the Scotsman, the Sunday Telegraph, the Sunday Times, the Ulster Newsletter, the Voice and the Western mail for the period 26 to 31 March 2003. Recruitment consultants, kmc international, were appointed to assist with the recruitment programme.

6. A good response was received to the advertising campaign. There were 77 applications for the Chair position and 403 applications for positions as Members (including a number applying for both). All these applications were scrutinised and evaluated in line with the code of practice laid down by the Office of the Commissioner for Public Appointments (OCPA). Following this scrutiny and assessment the appointment of Katharine Bryan as the CoRWM Chair was announced on 16 July 2003. Mrs Bryan was the existing Chair of the Joint Nature Conservation Council and a previous Chief Executive of the North of Scotland Water Authority.

7. Subsequently, on 17 November 2003, the appointments of the 12 other CoRWM Members were announced. These were:

- Mary Allan, Ross-shire - Lecturer, The North Highland College, Dornoch Campus;

- Professor David Ball, Norfolk - Professor of Risk Management and co-Director of Centre for Decision Analysis & Risk Management, Middlesex University;
- Fred Barker, West Yorkshire - consultant, specialising in nuclear policy analysis and stakeholder engagement;
- Dr Keith Baverstock, Finland - chemist, Docent in Department of Environmental Sciences, Kuopio University, Finland, former Head of Radiation Protection Division, World Health Organisation;
- Professor Andrew Blowers OBE, Bedfordshire - Professor of Social Sciences at the Open University, former county councillor, Board Member of Nirex UK;
- Professor Brian D Clark, Aberdeen - Professor of Environmental Management & Planning and Board Member, Scottish Environment Protection Agency;
- Dr Wynne Davies, Buckinghamshire - former Vice President, Group Health, Safety and Environment, Amersham plc and former Lecturer in Physics and Radiation Biology, University of London;
- Dr Mark Dutton, Cheshire - physicist and radiological protection and radioactive waste management expert, independent consultant, formerly with NNC;
- Gordon MacKerron, Brighton - economist and energy policy consultant, Associate Director, NERA;
- Professor Lynda Warren, Powys - zoologist and Emeritus Professor of Environmental Law at the University of Wales, Board Member of the Environment Agency;
- Jenny Watson, London - Deputy Chair, Equal Opportunities Commission and former Chair, Nirex Independent Transparency Review Panel;
- Pete Wilkinson, Suffolk - Director of Wilkinson Environmental Consultancy, former Chair of Greenpeace UK, Director of Greenpeace International and co-founder of Friends of the Earth.

8. On 5 December 2003 it was announced that Gordon MacKerron, one of CoRWM's existing members, had taken over from Katharine Bryan as the CoRWM Chair. Mr MacKerron had previously applied, and been interviewed, for the Chair post. Katharine Bryan's resignation from the CoRWM Chair post was to take up the post of Chief Executive of the Water Service, Department for Regional Development (Northern Ireland).

9. Following its formation, CoRWM met twice during 2003, on 17/18 November and 8/9 December, to begin preparations for its work. It also established a website – www.corwm.org - on which details of the committee and its work and deliverables will be made available. The website also allows for views to be passed to the committee. It also provides links to the Defra website that in turn provides fuller details of the "Managing Radioactive Waste Safely" consultation, its outcome and other relevant material.

CoRWM's work

10. CoRWM's work is governed by its Terms of Reference and Code of Practice. The first of these sets out what the committee's sponsoring Ministers expectation of the Committee in terms of its work and deliverables, while the second defines the manner in which the committee should conduct its business. Copies of both documents are available on the CoRWM website.

11. CoRWM's key task is to oversee a review of options for managing the UK's solid radioactive waste that can provide a long-term solution, providing protection for people and the environment. The Committee's Terms of Reference state that its priority is to recommend what should be done with the wastes for which no long-term management solution currently exists – that is high and intermediate level waste now in storage or likely to arise over the next century or two, and some low-level waste unsuitable for disposal at the Drigg facility. However, CoRWM is required to give consideration not only to materials currently classified as waste which are liable to arise in this period but also to other materials which may have to be managed as waste during the course of it, such as some plutonium and uranium as well as certain quantities of spent nuclear fuel.

12. In carrying out its options review CoRWM has been required to take the earliest possible opportunity to identify those management options which have no realistic prospect of being implemented within the reasonably foreseeable future, so

that its main effort during the assessment stage can be focussed on those options which are likely to be practicable.

13. CoRWM's Terms of Reference also say that the committee must inspire public confidence in the way it works, in order to secure such confidence in its eventual recommendations. Hence, its work must be characterised by:

- a transparency policy;
- encouraging people to ask questions or make their views known, listening to their concerns, ensuring that they are addressed and that people get a response;
- public meetings and other consultative processes, well advertised in advance and involving a variety of interested stakeholders including members of the public;
- holding a significant number of its own meetings in public;
- clear communications including the use of plain English;
- making information accessible to as many people as possible, including use of the internet, as well as ways of reaching people who do not use the internet; and
- providing opportunities for people to challenge information, for example by giving them access to alternative sources of information and points of view.

14. CoRWM has been asked to aim to deliver its recommendations by around the end of 2005. Its first task will be to submit a draft work programme for discussion and agreement with sponsoring Ministers. Once CoRWM's recommendations have been delivered it will be for UK Government and the devolved administrations to decide policy in light of them.

Progress reporting

15. Once CoRWM has agreed its work programme – including its review of options and engaging with the public and stakeholder groups – with Ministers, the Committee itself will be responsible for its implementation. Each year, the Committee will provide written progress reports to Ministers by 1 June and 1 December, and this will be followed by a meeting. CoRWM will also provide interim progress reports each March and September. All of these reports, including a summary of the outcome of its meetings with Ministers, will be published by the Committee.

Deciding what wastes will have to be managed

16. As last year's report stated, a task to be addressed early in CoRWM's work programme will be that of reaching a view on the inventory of materials that will eventually have to be managed as waste. This is likely to include some separated plutonium and uranium as well as some unprocessed spent fuel.

17. This is an issue which CoRWM will take up with existing owners and the Liabilities Management Unit (LMU) of the Department of Trade and Industry (which as the forerunner of the Nuclear Decommissioning Authority, or NDA, will eventually assume ownership for considerable amounts of such materials). We shall expect CoRWM to take a hard-nosed look at what proportions of such materials are likely to be economically reusable in future and what proportions are likely to have to be regarded as wastes.

18. Whatever decisions the owners, including Government, may or may not make in the near term, CoRWM will be expected to reach its own independent view, including "worst case" assumptions, and to state the reasoning behind this view. In doing this, and in contemplating options for the long-term management of such waste materials, the committee will be free to draw on whatever material it sees to be both appropriate and reliable. This could include, for example, the British Nuclear Fuels (BNFL) National Stakeholder Dialogue report on the future management of separated plutonium and the Government's analysis of the future options for the management of the UK-owned civil plutonium.

Storage of wastes and their regulation

19. Since last year's progress report the major nuclear regulators – the Health and Safety Executive (HSE), the Environment Agency (EA), in England and Wales, and the Scottish Environment Protection Agency (SEPA) in Scotland – have been working on their proposals to improve the regulation of the conditioning and storage of intermediate level waste (ILW) on nuclear sites.

20. The new system continues to be based on the use of the existing Nirex Letter of Comfort (LoC) and Letter of Advice (LoA) processes under current legislation. However, it removes the quasi-regulatory role that Nirex held in the past in applying these processes, by placing final decision-making solely in the hands of the regulatory bodies.

21. Under the new arrangements, Nirex will assist site operators to prepare a safety case to HSE covering not only construction and operation of plant, but also proposals for waste treatment and conditioning. HSE would look to ensure that any conditioning would be appropriate to safe storage of the waste, whilst the appropriate environment agency would look to ensure that resulting waste forms would be suitable for long-term management.

22. During 2003, HSE and the environment agencies have been working with Nirex and the nuclear industry to finalise their revised regulatory arrangements. Agreements have been reached between the regulatory bodies and Nirex for the scrutiny of Nirex's ongoing work and the principles and procedures upon which it is based. This is to ensure that it adequately meets regulatory requirements. The new arrangements will be progressively implemented beginning in early 2004.

23. The improved regulatory arrangements are considered to be flexible enough to accommodate the outcome of the CoRWM-led policy review under the Government's "Managing Radioactive Waste Safely" programme discussed in earlier sections of this report. The arrangements also have the flexibility to accommodate any changes to the role of Nirex, and the introduction of the NDA under the Energy Bill currently before Parliament.

Decommissioning

24. Last year's progress report indicated that Government was considering possible needs for review of the extant statement of nuclear site decommissioning policy set out in the 1995 "Review of Radioactive Waste Management Policy: Final Conclusions" White Paper (Cm2919)³.

25. During the course of 2003, Government gave consideration to the needs for decommissioning policy revision in light of developments since 1995, including improvements in understanding of decommissioning issues and needs gained since that time, and the proposed formulation of the NDA. This consideration led UK Government and the devolved administrations to issue proposals for a revised statement of policy for consultation in November 2003⁴.

26. The proposed revised policy requires nuclear operators to develop comprehensive strategies for decommissioning their facilities. It gives guidance on the issues to be addressed in strategies. It also provides for operators to review their strategies regularly, to provide adequate and secure funding and to develop and spread best practice. It takes account of the proposed formation of the new NDA, and emphasises the need for proportionate regulation of decommissioning operations. It recognises that the future use of the site will be an important factor in determining the decommissioning operations to be consulted on. The policy also proposes that restoration to unrestricted use may not always be the Best Practicable Environmental Option (BPEO), and that the policy needs to be flexible enough to allow for a range of possible outcomes.

27. The closing date for response to the decommissioning policy proposals consultation is 27 February 2004.

Waste substitution

28. Substitution in this context is the return of small volumes of high level radioactive waste (HLW) in place of larger volumes of intermediate level waste (ILW) arising from the reprocessing overseas' customers spent nuclear fuel and shipping the resulting waste back to them. Existing policy set out in the Cm2919 White Paper

is that substitution of HLW for ILW for the purposes of return should only be committed to once a final disposal facility for the retained ILW is available. With the collapse of the Nirex ILW repository programme in 1997, the availability of such a facility was put back a number of years, potentially decades.

29. The issue of the link between waste substitution and the availability of a repository or other long-term management solution was raised in the “Managing Radioactive Waste Safely” consultation paper. Last year’s progress report said that Government had commissioned consultants to review the advantages and disadvantages of breaking this link to allow substitution for the return of reprocessing waste now. The consultant’s study was completed during 2003 and will provide the basis for a consultation on waste substitution policy early in 2004.

Managing spent sealed sources

30. Arrangements for the management of spent sealed sources were covered in the “Managing Radioactive Waste Safely” consultation paper. Last year’s progress report talked of development of the High Activity Sealed Sources (HASS) Directive within the EU to deal with this issue prospectively and the potential for implementing some form of recovery system for existing spent sources.

31. The drafting and negotiations in relation to the HASS Directive are now complete, and the Directive was formally published on 31 December 2003. Work has started in the UK on transposition; the legislative instruments need to be in place by the end of 2005. The Directive will be used to ensure that spent sealed sources are disposed of promptly, and there are specific provisions relating to financial provision and disposal, which will provide the regulators with the necessary powers. From 2006 no new HASS sources should be added to the UK’s legacy of spent sealed sources.

32. The Scottish Executive’s initiative to fund the collection and disposal of the health sector’s spent sealed sources described in last year’s progress report is now complete and the sources have been exported for recycling to a German company. This initiative conforms to the earlier recovery recommendations of the Radioactive Waste Management Advisory Committee RWMAC, and the advice from the regulators. Defra, with other Government departments, are scoping the scale and cost of an extension of this approach to England and Wales. Once this has been

completed, the funding of such a disposal amnesty will have to be established, as will the practical issues relating to tendering, phasing, and scheduling of collection and disposal.

33. Recent concerns in connection with possible terrorist or other malevolent uses of HASS sources have added impetus to the implementation of measures to ensure the security of all such sources and the prompt disposal of them. Work by constabulary Counter Terrorism Security Advisers, in conjunction with the regulators, continues to improve the security of all major sources.

34. The UK's infrastructure for the collection of spent sealed sources is in the private sector and remains fragile. This is creating problems for companies wishing to dispose of spent sources. Government is monitoring this situation.

Classifying UK wastes and segregating by half lives

35. There has been no further work on this subject during 2003.

The 2004 UK Radioactive Waste Inventory

36. The 2004 UK Radioactive Waste Inventory exercise is well underway. The questionnaire, which will be completed by waste owners and producers, will be for a stock date of 1 April 2004. Improvements that have been made for the 2004 Inventory include simplification of the data collection questionnaire, whilst expanding the requirements for different classes of low-level waste (LLW).

Coordination of work

37. Appropriate coordination of "Managing Radioactive Waste Safely" issues is achieved through the operation of the Radioactive Waste Policy Group (RWPG). This is a central committee on which UK Government departments (including DTI), the devolved administrations, the LMU (as the forerunner to the NDA) and the regulatory bodies (HSE and the environment agencies) are represented.

38. The Group's terms of reference are:

“To review and make recommendations on issues which arise in relation to UK radioactive waste management policy, radioactive discharges, and the corresponding regulatory processes and arrangements”.

39. This remit is taken to include appropriate coordination of policy and regulatory initiatives. The Group meets 3-4 times a year but also functions through correspondence during the intervening periods.

References

1. Managing Radioactive Waste Safely: Proposals for Managing Solid Radioactive Waste in the UK, Department for Environment, Food and Rural Affairs et al, September 2001.
2. Managing Radioactive Waste Safely: First Progress Report to the House of Commons Environment, Food and Rural Affairs Committee, Department for Environment, Food and Rural Affairs, December 2002.
3. Review of Radioactive Waste Management Policy: Final Conclusions (CM2919), Her Majesty's Stationery Office, July 1995.
4. A Public Consultation on Modernising the Policy for Decommissioning of the UK's Nuclear Facilities, Department of Trade and Industry, November 2003.