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## NUCLEAR SAFETY ADVISORY COMMITTEE

### POLICY BRIEF FOR NUSAC MEETING OF 10 APRIL 2008

A Paper by the

DEPARTMENT FOR BUSINESS, ENTERPRISE AND REGULATORY REFORM

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#### 1. NUCLEAR WHITE PAPER: WHAT HAPPENS NEXT?

1.1 The Nuclear White Paper explains that the Government has decided that, in the context of climate change and energy security challenges:

- it is in the public interest that new nuclear power stations should have a role to play in this country's future energy mix alongside other low carbon sources;
- that it would be in the public interest to allow energy companies the option of investing in new nuclear power stations;
- the Government should take active steps to open up the way to the construction of new nuclear power stations in the UK, including meeting the full costs of decommissioning and their full share of waste management costs.

1.2 This briefing note sets out the actions the Government is taking to enable nuclear to be a continued part of our energy mix and how they are being taken forward.

#### **'Facilitative actions'**

1.3 Section 3 of the White Paper (What the Government will do' - p134-154) sets out the 'facilitative actions' government will take.

1.4 The aim of these actions is to reduce the regulatory and planning risks around investing in new nuclear power stations,

1.5 For many of these facilitative actions, we do not need new primary legislation. The non-legislative facilitative actions include:

- Running a Strategic Siting Assessment process to help identify suitable sites and siting criteria for new nuclear power stations and conducting a Strategic Environmental Assessment alongside the SSA;
- Running a process of Justification, to assess whether the benefits of nuclear power technologies outweigh any health detriments;
- Assisting the regulators on Generic Design Assessment, to prevent this regulatory requirement becoming a bottleneck for new build;
- Working with regulators to review the regulatory regime to explore ways of enhancing its effectiveness in dealing with the challenges of new build; and,
- Pushing for a strengthening of the Emissions Trading Scheme so investors have confidence in a continuing carbon price signal.

1.6 The facilitative actions requiring primary legislation are:

- Improving the planning system for major infrastructure projects in England and Wales, including nuclear power stations (which is being taken forward in the context of the Planning Bill); and,
- The clauses related to nuclear in the Energy Bill aim to ensure operators have secure financing arrangements in place to meet the full costs of decommissioning and their full share of waste management costs. The Energy Bill clauses [41-63] will give the Government the new powers needed to ensure this.

1.7 This paper gives more information on the main facilitative actions outlined above, some key dates and an indicative timetable towards new build.

### **Improving the planning system for major electricity generating stations in England and Wales, including nuclear power stations**

1.8 In the past the planning system for major infrastructure projects – including nuclear power stations - has been inefficient, costly and lengthy.

1.9 In some cases not enough time was spent considering local issues because they spent too long dealing with the broader national issues. Consider the example of Sizewell. It took 6 years to secure planning consent and cost £30 million. However, only 30 of the 340 inquiry days were devoted to local issues.

1.10 The Planning Reform Bill, which was introduced to Parliament in November 2007 includes proposals for a fundamental reform of the planning system for nationally significant infrastructure projects. A key part of these reforms will be to ensure that the planning system gives full weight to national, strategic and regulatory issues that have already been the subject of discussion and consultation, rather than reopening these issues in the context of each individual planning decision. This will ensure sufficient time is dedicated to

consideration of local issues, while avoiding the need to repeatedly consider national issues.

1.11 There are two key elements to the reforms:

- The creation of an independent Infrastructure Planning Commission which will take planning decisions on nationally significant infrastructure projects including new nuclear power stations; and,
- The Government will produce National Policy Statements (NPS) which will set out the Government's policy on the planning approach and will set the framework for IPC decisions. These NPS will be subject to public consultation. We are proposing that there will be an NPS for nuclear power.

1.12 The intention is that all major infrastructure projects will need a NPS – whether it be for airports, major renewables projects, transmission networks, or nuclear power stations.

(More detail: page 137 - 139 in the White Paper)

**Running a strategic siting assessment (SSA) process to help identify suitable sites for new nuclear power stations**

1.13 The White Paper states that we expect planning applications for new nuclear power stations will focus on areas in the vicinity of existing nuclear facilities.

1.14 But to help identify the most suitable sites for new build, we will use the SSA process. This process will identify criteria to assess the suitability of sites and will also identify a list of sites nominated by industry which meet those criteria. As part of the SSA, we are taking further the consideration of the high-level environmental impacts of new nuclear power stations through a formal Strategic Environmental Assessment in accordance with the SEA Directive.

We envisage the following next steps:

- Feb/March 2008  
Consultation on SEA scoping report
- March / April 2008  
Publish a public consultation on draft Strategic Siting Assessment criteria and the SEA environmental report.  
These criteria would be used to assess the suitability of nominated sites.
- Oct 2008  
Invite nominations for potential sites to be assessed against the SSA criteria.
- Feb/March 2009  
Consult on draft list of nominated sites which meet the SSA criteria and a further SEA environmental report.

- The key components of the SEA and the SSA (which are the set of criteria, the list of sites that meet that criteria and an environmental statement) will form the NPS on nuclear.

(More detail: page 139 - 142 in the White Paper)

**Running a process of Justification, to test whether the benefits of specific nuclear power technologies outweigh any health detriments**

- 1.15 Before a new type of nuclear power station can operate in the UK, it must first have been “Justified.” This is a technical term which means it needs to be shown that the net benefits of its introduction would bring, outweigh any health detriment. This requirement is derived from EU law.
- 1.16 This is only one of a number of regulatory processes. It does not, by itself, mean a power station can be built or be operated.
- 1.17 Alongside the Government’s nuclear consultation last year, we also consulted on a proposed Justification process. That process has been refined to take account of the comments we received.

That process is:

- Firstly: the Government will make a call for applications in March this year. We will be publish the applications we have received
- Secondly the application will be assessed and a draft Decision Document will be produced; and,
- Finally – there will be a public consultation on the draft Decision Document. We will take account of consultation responses into account before we finalise the decision document.

The whole process should take between 12 and 18 months.

(More detail: page 142 – 143 in the White Paper)

**Assisting the regulators on Generic Design Assessment, to prevent this regulatory requirement becoming a bottleneck for new build**

- 1.18 Before a nuclear power station can be built, the reactor design has to be approved by the independent regulators (Nuclear Installations Inspectorate, Environment Agency, Office of Civil Nuclear Security of the Health and Safety Executive). The GDA process is also led by the regulators – NII, EA and OCNS.
- 1.19 To avoid this becoming a bottleneck, the GDA process is assessing whether generic safety, security and environmental aspects of nuclear power station designs, are safe and secure, before site specific applications are made.

- 1.20 The process will limit the need to discuss the generic safety, security and environmental aspects in depth during the site specific licensing process.
- 1.21 The GDA process began on a contingent basis last year. The regulators are currently looking at four designs (submitted by AREVA; Westinghouse; AECL and GE).
- 1.22 In spring this year we may need to start a prioritisation process which will mean that no more than 3 of these reactor designs will be taken forward for more detailed assessment.

(More detail: page 143 – 146 in the White Paper)

### **Energy Bill clauses**

- 1.23 The facilitative actions above, with the exception of the framework to be established in the Planning Bill, do not need primary legislation.
- 1.24 But we do need new powers in relation to the Government conclusion in the White Paper that energy companies operating any new nuclear power stations should cover their full decommissioning costs and full share of waste management and disposal costs.

## **2. CONSULTATION ON FUNDED DECOMMISSIONING PROGRAMME GUIDANCE FOR NEW NUCLEAR POWER STATIONS ANNOUNCED**

- 2.1 New nuclear power station operators will be required by law to set aside money from day one of generating electricity for their eventual decommissioning and waste costs. Draft [guidance](#)<sup>1</sup> was published on February 22 setting out how this would work.

Companies would be required to:

- Demonstrate detailed and costed plans for decommissioning, waste management and disposal, before they even begin construction of a nuclear power station;
  - Set money aside into a secure and independent fund from day one of generation; and
  - Have additional security in place to manage and mitigate the risk that there are insufficient funds, for example, if the power station closes early.
- 2.2 In ensuring these safeguards, the Secretary of State will draw on expert advice from the soon to be established Nuclear Liabilities Financing Assurance Board.

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<sup>1</sup> <http://www.berr.gov.uk/consultations/page44784.html>

- 2.3 The draft guidance, published for consultation, will assist businesses in understanding their obligations under the Energy Bill, and what is required for a Funded Decommissioning Programme to gain approval.
- 2.4 Included is an indicative timeline by which the Government expects to publish its estimates of the costs of decommissioning and managing and disposing of the waste from new nuclear power stations, and therefore be in a position to set a fixed unit price for disposal of intermediate level waste and spent fuel. This fixed unit price will be set at a level over and above expected costs and will include a significant risk premium, to provide the taxpayer with material protection.
- 2.5 The earliest date for a possible operator to request a fixed unit price for the disposal of intermediate level waste and spent fuel could be mid to late 2009 (as set out in the Consultation Document).

NB: Formation of the NLFAB is scheduled for Q4/2008/Q1/2009

### **3. NDA COMPETITIONS**

- 3.1 The NDA has made significant progress towards establishing a safe, innovative and dynamic market for nuclear clean up and decommissioning since it assumed responsibility for decommissioning and cleaning up of the nuclear legacy sites in April 2005.
- 3.2 Competition for the management of the NDA sites is at the heart of the Government's strategy for tackling the civil public nuclear legacy, introducing world class management, spreading best practice and innovation and driving efficiency. The aim ultimately is to hold competitions for the management of all the NDA's nineteen sites. The successful conclusion recently of negotiations with the bidder for the NDA's first competition for the management of the low level waste repository site near Drigg, is an important milestone in the clean up of the UK's nuclear legacy.
- 3.3 It was announced on 15/8/07 that UK Nuclear Waste Management Ltd (UKNWM - consortium led by URS - Washington Division and including Studsvik, Areva and Serco) was the preferred bidder. Negotiations have been concluded and the NDA intends to award a contract and enter into a Transition Agreement on 18<sup>th</sup> March 2008 following the standstill period required by the OJEU process and a simultaneous period of 14 working days whilst a nuclear indemnity sits before Parliament. At the 1<sup>st</sup> April, share transfer will take place from the old Parent Body (BNGSL) to UKNWM. At this point the M&O contract and Parent Body Agreement will also become effective.
- 3.4 The second competition, for Sellafield, has four strong bidders. Tenders are expected at the end of April only three weeks behind the original schedule and it is expected to be completed in the autumn. When the Sellafield contract is concluded it will mean that management of dealing with more than 60% of

the estimated civil public nuclear legacy will have been successfully completed.

- 3.5 There is a pause in the remainder of the competitions schedule whilst the NDA take account of market feedback and lessons learned from the two current competitions.
4. **MANAGING RADIOACTIVE WASTE SAFELY (MRWS):** A framework for implementing geological disposal.
  - 4.1 During October 2006 the UK Government accepted, as recommended by the independent Committee on Radioactive Waste Management (CoRWM), that geological disposal coupled with safe and secure interim storage is the way forward for the long-term management of the UK's higher activity radioactive wastes. The Government also confirmed it is supportive of exploring an approach based on voluntarism and partnership with local communities.
  - 4.2 As part of the Government's Managing Radioactive Waste Safely (MRWS) Programme, the Government launched a consultation on 25 June 2007 outlining an implementation framework for geological disposal. The consultation closed on 2 November 2007. Following consideration of the responses to the consultation the Government will publish, in 2008, a statement (White Paper) setting out the UK's implementation policy for high-level radioactive waste management. A summary and analysis of responses to the consultation was published on 10 January 2008.
  - 4.3 In 2007 the Nuclear Decommissioning Authority (NDA) completed the integration of the old UK Nirex Ltd organisation in order to effectively carry forward the delivery and implementation of geological disposal. There is now a single point of responsibility and accountability, providing the UK with a strategic view across the radioactive waste management chain.
  - 4.4 CoRWM was reconstituted in 2007. The reconstituted CoRWM's primary task is to provide independent scrutiny and advice on the Government's and Nuclear Decommissioning Authority's proposals, plans and programmes to deliver geological disposal, together with robust interim storage, as the long-term management option for the UK's higher activity wastes. With this new purpose in mind, the reconstituted CoRWM has a strengthened scientific and technical focus in its membership.
  - 4.5 In March 2007 the Government announced an update of its policy for low level waste (LLW) management. Under the new policy, the NDA is now responsible for developing and maintaining a national strategy for handling LLW from nuclear sites and for ensuring continued provision of the waste management and disposal facilities required. The LLW strategy that the NDA develops will be reflected in its annual plans and strategy document in due course, which will be subject to public consultation. A national strategy for managing non-nuclear industry LLW will be developed by Government with assistance from the NDA where appropriate.

## 5. EUROPEAN HIGH LEVEL GROUP ON NUCLEAR SAFETY AND WASTE MANAGEMENT

5.1 The basic mandate for the High Level Group (HLG) comes from the Council Conclusions of 8 May 2007, as informed by the outcome of the Working Party on Nuclear Safety in 2006, and amplified by the Commission Decision of 17 July 2007 on establishing the HLG. Its purpose is to develop a common understanding, and if appropriate, suggest common approaches in the fields of:

- the safety of nuclear installations;
- the safety of the management of spent fuel and radioactive waste; and
- financing of the decommissioning of nuclear installations and safe management of spent fuel and radioactive waste

5.2 It is anticipated that meetings will be convened twice a year or more frequently as deemed appropriate. To date, there have been two meetings; the first on 12 October 2007 and the second on 11 January 2008. Further meetings are planned for 21 April 2008 (Vienna) and 30 May 2008 (Brussels).

5.3 At the meeting of 12 October, the Commission confirmed that the role of the HLG is to report to the Council and European Parliament and advise the Commission. It was also agreed that the basic principle of decision making would be by consensus. The main output of the meeting was to clarify the Group's mandate and initiate the preparation of a draft Work Programme, Rules of Procedure and Group Priorities (to feed into the Work Programme).

5.4 At the meeting of 11 January, the President of the Group was confirmed as Andrej Stritar (Slovenia). Mike Weightman (UK) and Anne McGarry (Ireland) were confirmed as Vice-Presidents. The Group reached consensus on its Rules of Procedure and, in order to fulfil its purpose, to put in place three expert Working Groups:

- **Working Group 1 – Improvements in Safety Requirements and Practices (for nuclear power plants).** To address nuclear safety issues and interfaces with the Convention on Nuclear Safety.
- **Working Group 2 – Improvements in Decommissioning and Radioactive Waste and Spent Fuel Management.** To address radioactive waste safety and spent fuel management, interfaces with the Joint Convention on Radioactive Waste and Spent Fuel Management, and interfaces with the EU decommissioning funding programme; and,
- **Working Group 3 – Improvements in Transparency.** To address transparency, communications and stakeholder engagement for the HLG, including the sharing of Member States experience in these fields.

- 5.5 Each of the Working Groups will develop its own Terms of Reference and Work Programmes for agreement at the next meeting in Vienna on 21 April 2008.
- 5.6 The HLG has undertaken to submit its first report to the Council and the European Parliament by 17 July 2009, with progress reports at least every three years.
- 5.7 A website will be set up shortly by the Commission on which the HLG will publish documents to assist interested parties in understanding the work of the Group.

## **6. GLOBAL NUCLEAR ENERGY PARTNERSHIP (GNEP)**

- 6.1 The UK joined the Global Nuclear Energy Partnership (GNEP) on 26 February 2008. Mr. Hutton signed the GNEP Statement of Principles during a two day visit to Washington DC.
- 6.2 GNEP is a US initiative announced by President Bush as part of the US Advanced Energy Initiative. It aims to increase international nuclear generation to help meet growing energy demand, reduce volumes of waste and reduce the risks of nuclear proliferation. The UK waited until after the nuclear consultation and the publication of the White Paper before considering GNEP membership. Other GNEP members include: Australia, Bulgaria, Canada, China, France, Ghana, Hungary, Italy, Japan, Jordan, Kazakhstan, Lithuania, Poland, Republic of Korea, Romania, Russia, Senegal, Slovenia, Ukraine and the United States.
- 6.3 The UK strongly supports the rights of all Parties to the Treaty on Non-Proliferation of Nuclear Weapons to develop and use of nuclear energy for peaceful purposes. The UK's participation in GNEP is intended to facilitate these rights. UK and the more developed countries will be able, through the GNEP partnership, to share experience on a wide range of issues, such as infrastructure assessments, security and safety requirements, which will help developing countries identify whether nuclear power generation is suitable for them and how to proceed with its implementation safely and avoiding non-proliferation risks.
- 6.4 NDA and other UK organisations are potentially well placed to take part in and benefit from GNEP. UK membership of GNEP will allow us to help shape the programme, develop and share international best practice in materials and waste management, provide opportunities to UK organisation and contribute to maintaining UK nuclear science skills. BERR expects to play an active policy role, contribute to the development of GNEP objectives and help position UK organisations to compete for international contracts and take part in collaborations that benefit their missions. BERR administration costs will be found within existing resources and no programme expenditure is planned.

## **7 NATIONAL NUCLEAR LABORATORY**

- 7.1 The Secretary of State announced in October 2006 that, subject to the agreement of contractual terms, the Government expects that there will be a UK National Nuclear Laboratory (NNL). It will be a Government owned, contractor-operated company (GOCO) based around the Sellafield Technology Centre (BTC) and Nexia Solutions.
- 7.2 An operating model has been developed and agreed by BERR, BNFL, Nexia and NDA. It proposes that the NDA facilities (including the Sellafield Technology Centre (BTC)) are maintained and operated by the Site Licensed Companies; and that Nexia Solutions' staff be placed in a NNL established as a GOCO in the Shareholder Executive portfolio. Access to the facilities will be controlled by contracts between the Site Licensed Companies and the NNL. The model is designed to simplify the existing arrangements and has been favourably received, subject to detailed review as part of the normal regulatory process, by the safety, security and environment regulators.
- 7.3 The NNL will take its place in a nuclear technology research market where its future will be shaped by the demands of customers within industry, public sector and academia. The proposed model will minimise the risk to existing skills and capability within Nexia and provide a platform for UK and international funded research and technology.
- 7.4 BERR, NDA, BNFL and Nexia Solutions are continuing to work closely together to develop a business model for the NNL that we hope will allow us to move towards the appointment of a management contractor.

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**BERR**  
**Nuclear Unit**  
**March 2008**