

Response by Horizon Nuclear Services Ltd

General response

1. Horizon Nuclear Power Services Ltd ("Horizon") welcomes the opportunity to comment on the revised Funded Decommissioning Programme (FDP) Guidance. Horizon completely accepts that operators must pay for the full costs of decommissioning new nuclear power stations and their fair share of waste management costs.
2. Horizon considers that the revised document generally provides much clearer guidance for potential new build operators and is a significant improvement over the 2008 draft. However, we have noted in our response a number of fundamental concerns that it will be important for the Guidance to address to increase the understanding of operator risk established by the FDP that will be required to secure investment certainty.
3. Whilst the revised Guidance is, in many respects, less prescriptive in terms of how operators can structure their FDP and as such is an important step in enabling new nuclear operators to continue progressing the development of their projects, there still remains a lot of detail to be discussed between an operator, DECC, the Nuclear Liabilities Financing Assurance Board (NLFAB) and the regulators before an agreed FDP will be able to be put in place and a nuclear new build project will be able to go ahead in practice.
4. It is important that Government publishes finalised guidance according to its timetable as announced in the Consultation document to enable operators to engage with DECC and NLFAB in the development of their FDP.

Question 1

Do you agree or disagree that the draft Guidance sets out what an approvable Funded Decommissioning Programme should contain to ensure that operators of new nuclear power stations

- (i) estimate the potential costs of decommissioning, waste management and waste disposal (i.e. the designated technical matters)
- (ii) make prudent provision for meeting their liabilities?

What are your reasons?

5. The draft Guidance adequately sets out examples of what information an FDP could contain though, as the Guidance itself recognises in paragraph 1.10, this information is not a statutory requirement and it is noted that an FDP compiled on an alternative basis is also capable of being accepted.
6. In the draft Guidance presented, there is a lack of consistency between the Government's arguments for choosing a position for the Base Case and the detailed assumptions and reasoning that is required of operators in proposing alternative approaches. For example, paragraph 2b.19 states, "if an operator puts forward a DWMP that is not consistent with the Base Case, the onus will be on the operator to justify its proposal", but then in paragraph 2b.27, "assumes ... a single station operating for 40 years", with no justification offered for this. Similarly it assumes, in paragraph 2b.30, that "the site is restored to a state similar to 'Greenfield' or similar to its state prior to construction"; again no justification is offered. Horizon believes it is reasonable to assume that the Government will not expect a detailed assessment of options for alternatives to proposals put forward by the operator where no justification has been given for the Government's choice in the Base Case.

Question 2

Does the draft Guidance contain sufficient information to enable operators of new nuclear power stations to understand the matters that their Funded Decommissioning Programmes should contain?

Guidance relating to the FDP as a whole

7. Horizon expects that each FDP will be considered on its merits and will not be assessed in a comparative way to any FDPs that have been submitted previously by other potential new nuclear power station operators.
8. The reporting requirements of the Guidance and associated legislation¹ are overly prescriptive without making it clear why such prescription is necessary. For example, it may be beneficial and more constructive to align annual FDP reporting periods to the operator's financial reporting period rather than to the arbitrary date on which the Secretary of State approved the operator's initial FDP. There may also be occasions where it would be sensible to accelerate the quinquennial review to coincide with the plant's operational timetable, for example, during a planned refuelling or maintenance outage. It would be beneficial, therefore, if it were possible to agree reporting requirements as part of the FDP, subject to limits set out in legislation (e.g. quinquennial, or major, reports to happen *no less than* once every five years). In addition, we would not expect that minor or major reviews of an approved FDP would be

¹ The Nuclear Decommissioning and Waste Handling (Finance and Fees) Regulations 2011

needed prior to first irradiation of the reactor core, i.e. no reviews would be needed after the FDP is first approved and before the plant becomes operational. This would not, of course, obviate the need to submit a modified FDP for approval if plans that were approved were changed, according to the requirements of the Energy Act 2008.

9. It would also be sensible to allow for a suspension of the reporting deadlines should a dispute arise between any of the relevant parties, so that they are not in breach of the legislation by virtue of not reaching agreement within the stated timescales (i.e. 3 months for an annual report, 6 months for a quinquennial report, which in themselves appear to be challenging).²
10. For clarity, Horizon expects that the 5% change in FDP costs³ would be in real terms, i.e. differences in the FDP costs due to inflation should not be considered as part of the 5% change threshold.
11. It should be possible to draft the FDP so that, in particular circumstances, changes to the contribution schedules from the Operator to the Fund, for example as a result of higher (or lower) than anticipated investment returns or in other defined circumstances, should be automatic and calculable rather than always requiring a formal modification to the FDP.
12. Horizon expects the FDP to contain details of the tax treatment of the fund such that a change to that tax treatment would be considered as a modification to the FDP and require proposal of a modification by the SoS pursuant to Section 48 of the Energy Act 2008.
13. Though the consultation explains the Government's view on when an approved FDP is required,⁴ DECC must recognise that investors in new nuclear projects will require the certainty of an approved FDP long before construction work is begun on buildings with nuclear safety significance.

Interaction between DECC and regulators

14. Horizon continues to believe that the interactions between the FDP and other regulatory authorisations, permits and consents are complex and will only become fully apparent in the detailed development of the FDP and those relevant authorisations. Accordingly, a greater understanding of the relationship between DECC and the regulators, in particular the Nuclear Directorate of the HSE and Environment Agency, would be beneficial. A formalised agreement to work together where necessary throughout the development of an operator's FDP would be a positive step.
15. One example that arises from the terms of the Guidance relates to the interaction between approval of the FDP and the issuance of the nuclear site licence. The February 2008 draft Guidance appeared to put forward the principle that the issue of the site licence and approval of the FDP would be substantially contemporaneous⁵ and that there would be interaction between the regulators. The present Consultation⁶ no longer contains these assumptions, but it will be important for operators to understand the relationship between the regulators and the risks that, for example, matters approved by HSE in a nuclear site licence application might be questioned or rejected by NLFAB or DECC at the time of FDP approval.

² Section 6 of The Nuclear Decommissioning and Waste Handling (Finance and Fees) Regulations 2011

³ Section 8(2)(b) of The Nuclear Decommissioning and Waste Handling (Finance and Fees) Regulations 2011

⁴ Paragraphs 2a.53-2a.60

⁵ See, e.g. Chart 1 on pages 38 and 39 of the February 2008 Consultation on Funded Decommissioning Programme Guidance for New Nuclear Power Stations.

⁶ Paragraphs 2a.53 ff

Decommissioning and Waste Management Plan (DWMP)

16. The Consultation document points to the requirement for an operator's DWMP to demonstrate prudence and be "consistent with the requirements and expectations of the safety, security and environmental regulators"⁷. Horizon wholeheartedly agrees with this principle. However we also believe that, in a number of areas, the Base Case sets out DECC proposals which do not necessarily meet this test, giving rise to a lack of consistency between what is being required of operators and what is being proposed by Government. Some examples are given below.

Interim Storage and packaging/preparation of spent fuel and ILW

17. We recognise that the Government's Base Case represents a possible, albeit (in Horizon's view) conservative approach to the interim storage and packaging / preparation of spent fuel (SF) and intermediate level waste (ILW) for disposal. We understand that this conservatism provides a safe basis in terms of cost estimations. However, we do not believe that the Government has demonstrated a level of technical consideration in the development of the Base Case that would be expected of an operator when putting its own proposals forward, and which would be required to achieve successfully the necessary permits and regulatory approval to operate a nuclear power plant.
18. Horizon would, in time, wish to optimise aspects of the Government's proposal to achieve efficiencies. For example, the Base Case assumes that the encapsulation of spent fuel (SF) is carried out on site,⁸ immediately prior to transfer to the geological disposal facility (GDF).⁹ This approach would require handling and treatment of spent fuel that would have been stored for periods of, in some cases, in excess of 100 years. It would then require the transportation of this encapsulated fuel to the site of the GDF. We believe an alternative solution would be for operators to store SF and ILW in multi-purpose casks (MPCs) which could be immediately transferred from the nuclear plant site to the final repository. It is feasible that such MPCs could then be used to dispose the SF directly in the GDF, provided the necessary safety approvals were obtained. This has the advantages of requiring fewer handling stages, using fewer casks, clearing the plant site more quickly than proposed in the Base Case and removing the need for encapsulation.
19. If encapsulation of SF were still required, the encapsulation process and timing would be entirely defined by the Government's requirements for the GDF: this is not something that the operators are able to specify in their FDP or accompanying submissions to other regulatory bodies.
20. Under the "Early Transfer" proposal, responsibility for the site, and any other new build sites, would have transferred to the Government before construction of the encapsulation facilities. We assume that the Nuclear Decommissioning Authority (NDA), or successor bodies, would take over responsibility for the waste and spent fuel.
21. The encapsulation facilities will, therefore, be constructed by the Government to a specification required by the Government's GDF. As such the risks attached to this aspect of the waste management cycle are not manageable by an operator.

⁷ Paragraph 2b.3

⁸ Paragraph 2b.32

⁹ Assumptions in table 2, page 47

22. In the March 2010 Fixed Unit Price consultation the Government stated that costs were uncertain and that the level of uncertainty around those costs is “considerable, particularly around the costs of encapsulation”, and hence the “additional risk premium would be large”.¹⁰ It went on to confirm that “Government does not propose to expand the scope of the Fixed Unit Price beyond the estimated cost of geological disposal”. However, the uncertainty of costs for encapsulation is entirely under the Government’s control, and this is also true for intermediate level waste (ILW).
23. Consequently, Horizon is of the view that the capital and operational costs of any facilities required for preparing the waste for disposal (including packages) should be incorporated into the Waste Transfer Price methodology (i.e. the £/tU SF and £/m3 ILW calculations) and included in the capped price that the Government offers to Operators.
24. Horizon also believes that the Government’s policy of each site having to construct and operate its own encapsulation plant should be reconsidered. The Government will require its own encapsulation facilities to handle its waste prior to emplacement in the GDF; requiring each new nuclear operator to build their own encapsulation facilities in addition to the Government owned facility will maximise capital and operational costs and maximise the generation of additional, secondary nuclear waste, as each of these facilities will subsequently need to be decommissioned.

“Early transfer” of title to and liability for an operator’s ILW and spent fuel

25. Clearly, delays in the Government’s GDF delivery programme are outside the operator’s control, and therefore we welcome Government confirmation that operators will only have to pay the risk premium to insure against the GDF not being available at the assumed disposal date.
26. Increased clarity will be required on the discount rate to be applied at Early Transfer. Without this there is a risk that the payment that the operator will have to make can be adjusted by governmental mechanisms, and any certainty that fixed prices or time periods bring is diminished by allowing variation to the discount rate. The Government should be prepared to agree the mechanism through which a discount rate will be calculated in the Government / Operator contract that is envisaged alongside the FDP, even though it cannot agree to a value for the discount rate at this stage. Such a mechanism would be expected to include consideration of recent metrics, such as recent average Gilt rates over a period, which would allow the operator and Fund to estimate the expected discount rate in the period running up to Early Transfer.
27. Horizon also requires confirmation of the process to agree the waste transfer contract, and the degree to which agreed contracts are expected to be made public. Horizon would very much welcome sight of a draft contract as soon as possible to allow us to carry out appropriate scrutiny and evaluation.

“Early Transfer” and disbursement policy

28. The obligations imposed on an operator by the FDP will end at the Early Transfer point, and we welcome this as Government will be best placed to manage spent fuel and intermediate level waste stores over the period after decommissioning has finished until the availability of the GDF. We note also that some wastes (i.e. ILW) may transfer to Government before the completion of decommissioning.¹¹

¹⁰ “Consultation on a fixed unit price methodology and updated cost estimates”, paragraph 3.2.28

¹¹ *Ibid*, paragraph 3.3.110

29. The “payment and disbursement policy” section of the Guidance needs to recognise that much of the expenditure will be undertaken by the Government after the early transfer date, with the Government (or a body acting on the Government’s behalf) implementing the terms of the FDP prepared and previously managed by the operator. Therefore, the “winding up of the fund” process should occur immediately after the lump sum is paid to Government as any remaining funds will be returned to the operator and the fund will then have no activities. The final annual or quinquennial report from the operator would be at the Early Transfer date and the operator (and any other bodies) would expect to be released from their obligations under the FDP, in accordance with section 64 of the Energy Act, at that time.

Funding Arrangements Plan (FAP)

30. Horizon would welcome clarity on the confusing issue of how the Fund would be expected to sign-off cost estimates at the time of first approval of the FDP (footnote 18, p34), when it is also stated that the Fund would only need to be in place prior to criticality (paragraph 2c.7).
31. Horizon expects to outline in the FDP and associated documents (which establish the fund) circumstances in which directors (should that be the model adopted) can be replaced, for example, if the fund is significantly underperforming.
32. The prohibition on the Fund from borrowing money (paragraph 2c.20) should not preclude the Fund borrowing money from the operator or associated companies, where the nature and terms of the borrowing arrangement is agreed as part of the overall process of approving an operator’s FDP.
33. We will need to be clear on the obligations and impacts that could be placed on an operator’s shareholders in respect of financial security provided. In particular, the ability of the Secretary of State to impose conditions that might affect a shareholder’s credit rating needs further consideration to avoid increased, and potentially unacceptable, risks to investors. It is unclear whether clause 99 of the Energy Bill 2010 adequately limits the SoS’s ability to make modifications to an FDP at the time of approving the programme, and we would need to see draft text of such an agreement as envisaged under the clause before we were able to form a view on whether it successfully achieves the desired effect. Accordingly we would be grateful for confirmation of when a draft text will be made available.