

**EXPLANATORY MEMORANDUM TO THE NUCLEAR REACTORS  
(ENVIRONMENTAL IMPACT ASSESSMENT FOR DECOMMISSIONING)  
(AMENDMENT) REGULATIONS 2006]**

**2006 No. 657**

1. This explanatory memorandum has been prepared by the Department for Work and Pensions, and is laid before Parliament by Command of Her Majesty.

This memorandum contains information for the Joint Committee on Statutory Instruments.

2. **Description**

- 2.1 This instrument makes amendments to the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations 1999 (S.I. 1999/2892). The amendments have arisen out of JCSI and EC points.

3. **Matters of special interest to the Joint Committee on Statutory Instruments**

- 3.1 In the second report of 1999, the Joint Committee on Statutory Instruments reported regulations 4 and 12(6) of the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations 1999 for defective drafting. Regulation 2(4) and (8) of the proposed instrument corrects these drafting errors.

4. **Legislative background**

- 4.1 The Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations 1999 implement Council Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment (see Annex C), to the extent that the Directive relates to the dismantling or decommissioning of nuclear power stations and other nuclear reactors.

- 4.2 The proposed instrument implements amendments made to 85/337/EEC by Directive 2003/35/EC. This Directive aims to ensure public participation in drawing up certain plans and programmes relating to the environment. Regulation 2(2), (3), (4-7) and (9-10) implement the amendments made by 2003/35/EC.

- 4.3 Amendment of regulation 13(1) is in order to simplify decommissioning arrangements. Where there is a change or extension to a decommissioning project, rather than halt the entire project, only the part(s) of a site where the change/extension may have a significant effect on the environment is subject to the requirements of the regulation. The amendment in regulation 2(7) provides for the licensee to stop the part of the project that is subject to change in addition to any other part (including the entire project) that the Executive may direct.

4.4 Regulation 2(8) replaces the reference to the Environmental Information Regulations 1992 (S.I. 1992/3240) with a reference to the Environmental Information Regulations 2004 (S.I. 2004/3391) and the Environmental Information (Scotland) Regulations 2004 (S.S.I. 2004/520).

4.5 The transposition note is attached (see Annex A). Directive 2003/35/EC was submitted for Scrutiny on 18 November 2002. Commons gave Scrutiny clearance 20 November 2002 and the Lords on 19 November 2002.

## 5. **Extent**

5.1 This instrument applies to Great Britain.

## 6. **European Convention on Human Rights**

As the instrument is subject to negative resolution procedure and does not amend primary legislation, no statement is required.

## 7. **Policy background**

7.1 The Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations 1999 (the Regulations) require the HSE to assess the effects of certain public and private projects on the environment - including the dismantling or decommissioning of specified nuclear power stations and nuclear reactors.

7.2 The Regulations require reactor licensees to: submit an application for consent (in the form of an Environmental Statement) to the Competent Authority (HSE) for consideration; publicise the application for consent (usually via publication in one or more newspapers circulating in the locality in which the project is to be carried out); and make available to the public copies of the environment statement. The licensee cannot start a decommissioning project or make a change to an existing project (where there may be a change or extension that produces an adverse environmental effect(s)) until HSE, in consultation with other relevant stakeholders e.g. the Environment Agency, Scottish Environment Protection Agency, has granted consent.

7.3 To date HSE has granted consent for decommissioning projects at Hinkley Point A, Bradwell, Calder Hall and Chapelcross nuclear power stations. HSE is currently considering an application from the Sizewell A and Dungeness A nuclear power stations.

7.4 The amendments arising out of changes to the Directive have the effect of widening both the information given to the public and the public to whom such information is given. HSE is required to inform a wider group of people upon receiving an environmental statement and including in the decision information about the public participation process and routes of challenge. There is also an obligation on the licensee to include additional information in the notice to the public informing them of the project. A decision making

element has also been introduced into the non-application of the Regulations to projects serving national defence purposes.

7.5 These changes are not politically sensitive. HSE received 13 responses after consulting nearly 500 stakeholders (including the nuclear industry, TUC, CBI, and non-governmental organisations) during the period 01 August – 31 October 2005 and only one negative comment from an individual was received.

7.6 Following the comments made, HSE has amended the decommissioning cost figure in the regulatory impact assessment for sites storing defuelled nuclear submarines, and made a further amendment to the Regulations in order to fully implement the changes made by Directive 2003/35/EC. Both the level and content of responses suggest stakeholders were broadly content with the proposals. A list of the respondees to the consultation exercise, the comments made and HSE 's response are detailed in Appendix A of the Regulatory Impact Assessment.

7.7 Respondents to the consultation and other key stakeholders will be notified when the amendment regulations are scheduled to come into force. The regulations will also be announced in a press release.

## 8. **Impact**

8.1 A Regulatory Impact Assessment (Annex B) is attached to this memorandum.

8.2 The impact on the public sector is that amendments driven by changes to the Regulations parent directive will present additional administrative costs to MoD, ODPM and HSE (although we expect the additional costs for HSE to be absorbed by existing resources).

## 9. **Contact**

Colin Potter at the Health and Safety Executive can answer any queries regarding the instrument:

Tel: 020 7717 6883 or

E-mail: [colin.potter@hse.gsi.gov.uk](mailto:colin.potter@hse.gsi.gov.uk)

*TRANSPOSITION NOTE: THE NUCLEAR REACTORS (ENVIRONMENTAL IMPACT ASSESSMENT FOR DECOMMISSIONING REGULATIONS (AMENDMENT) 2006*

**DIRECTIVE: EUROPEAN COMMISSION DIRECTIVE 2003/35/EC of 26 May 2003, PROVIDING FOR PUBLIC PARTICIPATION IN RESPECT OF DRAWING UP CERTAIN PLANS AND PROGRAMMES RELATING TO THE ENVIRONMENT AND AMENDING WITH REGARD TO PUBLIC PARTICIPATION AND ACCESS TO JUSTICE COUNCIL DIRECTIVES 85/337/EEC AND 96/61/EC.**

## **Introduction**

The Nuclear Reactors (Environmental Impact Assessment for Decommissioning) (Amendment) Regulations implement the (relevant) amendments made by Directive 2003/35/EEC to the Environmental Impact Assessment (EIA) Directive 85/337/EC, as amended by Council Directive 97/11/EC. These regulations amend the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations 1999 (EIADR99).

The EIADR99 implement as respects Great Britain Council Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment, as amended by Council Directive 97/11/EC, to the extent that the Directive relates to the dismantling or decommissioning of nuclear power stations and other nuclear reactors. The Regulations make the dismantling or decommissioning of specified nuclear power stations and nuclear reactors ("a project" as defined by regulation 2(1) of the EIADR99) subject to environmental impact assessment and impose procedural requirements in relation to the consideration of applications for consent to carry out a project.

These amendment regulations do what is necessary to implement the (relevant) changes made to the Environmental Impact Assessment (EIA) Directive 85/337/EC, as amended by Council Directive 97/11/EC, by Directive 2003/35/EEC, including making consequential changes to domestic legislation to ensure its coherence.

<b>Articles:</b>	<b>Objective:</b>	<b>Implementation:</b>	<b>Responsibility:</b>
Article 3.1 of 2003/35/EC	<p>To insert a definition of “any particular person” which includes non-government organisations. Obliges HSE to inform such persons, upon HSE receiving an environmental statement.</p> <p>To amend article 1.2 of 85/337/EEC by inserting a definition of “the public concerned” into that article.</p>	<p>Regulation 2(2) of the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) (Amendment) Regulations 2006 amends Regulation 2(1) of the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations 1999.</p> <p>It inserts a definition of “any particular person” which includes non- government organisations. Obliges HSE to inform such persons, upon HSE receiving an environmental statement.</p> <p>Amends article 1.2 of 85/337/EEC to insert a definition of “the public concerned” into that article.</p>	Health and Safety Commission
Article 3.2 of 2003/35/EC	<p>Inserts criteria for disapplication of the regulations to projects serving national defence purposes.</p> <p>Article 3.2 of 2003/35 replaces article 1.4 of 85/337 so that there is no longer a provision that projects serving national defence purposes are not covered by the Directive. Instead, member states may provide on a case-by-case basis not to apply the Directive to projects serving national defence purposes if they deem such application would have an adverse effect.</p>	<p>Regulation 2(3) of the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) (Amendment) Regulations 2006 amends Regulation 3(3) of the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations 1999.</p>	Health and Safety Commission
Article 3.4 of 2003/35/EC	<p>Works together with amendment regulation 2(2) to oblige HSE to inform “any particular person”, upon HSE</p>	<p>Regulation 2(5) of the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) (Amendment) Regulations 2006 amends Regulation 8(2) of the</p>	Health and Safety Commission

<b>Articles:</b>	<b>Objective:</b>	<b>Implementation:</b>	<b>Responsibility:</b>
	<p>receiving an environmental statement.</p> <p>Article 3.4 2003/35 amends article 6 85/337 to insert a new article 6.4 which requires the “public concerned” (as defined in the new article 1.2) to be given early opportunity to participate in the environmental decision making procedures set out in art 2.2 of 85/337.</p>	<p>Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations 1999.</p>	
<p>Article 3.4 of 2003/35/EC</p>	<p>Adds obligation on licensee to include in notice to the public, the fact that the project is subject to environmental assessment procedure.</p> <p>Implements article 3.4 2003/35 which replaces article 6.2 85/337 with a requirement to inform the public of the fact that the project is subject to environmental assessment procedure.</p>	<p>Regulation 2(6) of the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) (Amendment) Regulations 2006 amends Regulation 9(1) of the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations 1999.</p>	<p>Health and Safety Commission</p>
<p>Article 3.6 of 2003/35/EC</p>	<p>Inserts obligation on HSE to include in the statement of decision, information about the public participation process.</p> <p>Implements article 3.6 2003/35 which replaces article 9.1 of directive 85/337/EC with a requirement for the competent authority to include in the information it makes</p>	<p>Regulation 2(7) of the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) (Amendment) Regulations 2006 amends Regulation 11(c)(ii) of the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations 1999.</p>	<p>Health and Safety Commission</p>

<b>Articles:</b>	<b>Objective:</b>	<b>Implementation:</b>	<b>Responsibility:</b>
	available under that article, information about the public participation process.		
Article 3.7 of 2003/35/EC	<p>Inserts obligation on HSE to include in the statement of decision, information about challenge and the procedures for doing so.</p> <p>Implements article 3.7 of directive 2003/35, which inserts article 10(a) into directive 85/337/EC. There is an obligation in article 10(a) on member states to ensure that practical information is made available to the public on access to administrative and Judicial Review procedures.</p>	Regulation 2(7) of the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) (Amendment) Regulations 2006 amends Regulation 11(c)(iv) of the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations 1999.	Health and Safety Commission

## **Environmental Assessment of Nuclear Decommissioning Projects**

### **REGULATORY IMPACT ASSESSMENT (Full)**

#### **PURPOSE AND INTENDED EFFECT**

##### **Objectives**

1. *The purpose of these amendment regulations is to meet the legal requirements to correct typographical errors in the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations 1999 (EIADR99), implement the (relevant) amendments made to the EIADR99's parent directive, and simplify arrangements around decommissioning part(s) of a nuclear licensed site.*

##### **Background**

2. *The Joint Committee on Statutory Instruments (JCSI) identified two typographical errors that need correcting. There is a legal requirement for the Health and Safety Executive (HSE) to correct these errors.*
3. *The amendment to simplify arrangements around decommissioning part(s) of a nuclear licensed site has been identified by HSE following an internal review of the EIADR99. This amendment will avoid (subject to HSE'S agreement) the need for stopping the whole of a decommissioning project if change/extension occurs on only part(s) of a site that results in a severe, adverse effect on the environment (SAEE).*
4. *The changes required by implementing the (relevant) amendments made to the EIADR99's parent directive; the Environmental Impact Assessment (EIA) Directive 85/337/EC, as amended by 97/11EC, are mainly for clarifying requirements that the EIADR99 already comply with in practice even though it may not be explicit in the regulations. However, one amendment will remove the blanket exemption from the EIADR99 of defence related projects. This amendment will now require a case-by-case assessment by the Ministry of Defence (MoD) on whether an application for a specific exemption to the EIADR99 is necessary.*

##### **Rationale for government intervention**

5. *The changes required to amend the typographical errors are driven by the need to meet the requirements of the JCSI. The amendment to simplify arrangements around decommissioning part(s) of a nuclear licensed site was identified by HSE following an internal review of the EIADR99. The Nuclear Decommissioning Authority has also recently identified this scenario as warranting*



consideration. The final set of amendments is driven by the requirements to implement a revised EU directive (failure to implement the amendments required by the change to the EIADR99's parent directive will result in infraction proceedings).

6. *If HSE decided to 'do nothing' instead of implementing the efficiency amendment described in paragraph 3, then the whole of a decommissioning project will have to stop if a change/extension occurs on only part(s) of a site where this change will result in a SAE. HSE believes such action is disproportionate to the actual risks to the environment. Such an action would also result in project hold-up to the licensee that could be avoided if this amendment is made.*

## **CONSULTATION**

### **Consultation Within Government**

7. *The Office of the Deputy Prime Minister, Ministry of Defence, Department for the Environment, Food and Rural Affairs, The Scottish Executive, Scottish Environmental Protection Agency, Environmental Agency, Food Standard Agency, Department of Trade and Industry, and National Assembly for Wales were consulted on and in agreement with the proposals.*

### **Public Consultation**

8. *The proposals were put out to public consultation during the period 01 August – 31 October 2005. 13 responses were received with 8 in favour of the proposal, 3 offering further suggested changes, one making no comment and just one response against the proposal. A list of the respondees to the consultation exercise, the comments made and HSE 's response are detailed in Appendix A.*
9. *The consultation response from the Ministry of Defence (MoD) suggested that a revision should be made to the cost assumed in the Partial RIA for running an MoD decommissioning site. This was therefore amended from £300,000 to £2,600,000 per year. This change has increased the estimate of total costs presented in this RIA, but has not significantly altered the balance of costs to benefits.*

## **OPTIONS**

10. *The following options are being considered:*

**Option 1:** *Continue to apply the existing regulations as set out in the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations 1999 Statutory Instrument.*

**Option 2:** *Update the existing regulations to take account of changes made to the relevant EU Directive (97/11/EC) and the findings of the JCSI.*

**Option 3:** *Implement a new set of regulations which ease the burdens on site operators whilst maintaining the existing level of environmental assessment. Also implement the changes of option 2.*

### **Option 1**

11. *In 1999 a set of regulations was introduced to address an amendment to the EU Directive Environmental Impact Assessment Directive 85/337/EEC, brought about by EC Directive 97/11/EC. These regulations set out the principle that an Environmental Statement must be completed and presented to the competent authority (the Health and Safety Executive) before a decommissioning project can be allowed to proceed. This Environmental Statement would include an Environmental Impact Assessment. The regulations do not apply to any project “serving national defence purposes”.*
12. *Option 1 is to continue working under these regulations.*
13. *This option will not address the objectives set out in paragraph 1.*

### **Option 2**

14. *There are two areas where HSE is legally obliged to take action.*
  - *The EU Directive outlined under option 1 has been further amended by Directive 2003/35/EC. The exemption for projects “serving national defence” has been removed and the Ministry of Defence will need to assess each decommissioning project on its merits and either apply for a specific exemption from the relevant Secretary of State or carry out an Environmental Impact Assessment.*
  - *The Joint Committee on Statutory Instruments has identified some typographical errors which the Health and Safety Executive is obliged to clarify.*
15. *Option 2 would implement sufficient changes in British legislation to meet the requirements of the relevant EU Directive and those set out by the JCSI.*
16. *This option addresses the objective to meet the relevant legal requirements set out in the objectives of paragraph 1. It does not, however, meet the objective of generating some efficiency gains.*

### **Option 3**

17. *Under the existing regulations, before a decommissioning project may proceed, a licensee of a nuclear site must submit (and have approved) an Environmental Statement. If the project is subsequently subject to an unforeseen change or alteration which may result in an SAEE, then the licensee must submit, and have approved, a new Environmental Statement. Until approval has been granted, all work on the project must stop. This option would amend the regulation such that only that section, or sections, of the site which are likely to be affected by the change or extension will be required to halt work.*
18. *Option 3 would implement these changes in addition to the changes outlined in Option 2.*
19. *Option 3 addresses all the issues raised in the objectives of paragraph 1.*

## **COSTS AND BENEFITS**

20. *HSE has consulted both internally and externally regarding the costs to industry (and the Ministry of Defence) of carrying out (and of delaying) decommissioning projects. The decommissioning process for nuclear reactors may last for up to a century. The appraisal period for this RIA has therefore been set to 100 years. The standard Treasury discount rates for long-term projects are 3.5% for up to 30 years, 3.0% for between 31 and 75 years and 2.5% between 76 and 100 years. For this document a discount rate of 3% has been used. All prices are given in 2005 values throughout.*
21. *A number of assumptions has been made in the following analysis and are detailed in the text. Important examples are the assumptions made regarding the timescale of the Ministry of Defence decommissioning programme (some details of which are classified) and the likely frequency of “changes or extensions” to civilian (and military) decommissioning projects.*
22. *Due to the high profile, and low number, of nuclear decommissioning projects it is assumed that compliance with the existing regulations approaches 100%. It is also assumed that the level of compliance will not fall with the introduction of any of the options discussed.*

### **Sectors and groups affected**

23. The proposed changes will affect public sector organisations (both civilian and military) working on nuclear decommissioning projects. For each licensed site in Great Britain the number of staff employed (whether by the licensee or by firms undertaking some form of sub-contracted work) can vary greatly. For example, on a Magnox Electric site, the number of employees directly employed by the licensee can range from 350 to 450. There is also likely to be some sub-contracting of work to private firms, which varies by project and over time. This is considered further in the section below, “Small Firms Impact Test”.
24. The main costs presented in this document fall upon the Ministry of Defence, while the largest benefits accrue to the civilian decommissioning sector. It should be noted that the benefits, flowing from the changes which result in the extra costs to the MoD, have not been quantified.

## **BENEFITS**

### **Social benefits**

#### ***Option 1***

25. There are no anticipated social benefits for option 1.

#### ***Option 2***

26. There are no anticipated social benefits for option 2.

### **Option 3**

27. If a “change or extension” causing an SAEЕ takes place, option 3 will allow a site operator to continue working on the unaffected portion of the site, while under the existing regime they would have to stop work on the entire site. The total time taken to complete the project would therefore be reduced and it is assumed that this will have some societal benefit in terms of a quicker removal of the hazards from the site. This benefit has not been quantified however.

### **Environmental benefits**

#### **Option 1**

28. There will be no additional benefits under option 1.

#### **Option 2**

29. Under this option, the Ministry of Defence either will be required to produce an Environmental Statement, or to construct some justification for an exemption for a given decommissioning project. This process may lead to some environmental concerns being addressed which would not otherwise have been considered. These benefits have not been quantified however.

#### **Option 3**

30. The potential environmental benefit identified for option 2 will also apply to option 3.

### **Economic Benefits**

#### **Option 1**

31. *There are no anticipated economic benefits associated with option 1.*

#### **Option 2**

32. *There are no anticipated economic benefits associated with option 2.*

#### **Option 3**

33. *Although there are no direct economic benefits associated with this option, there are significant cost savings. As these cost savings are the focus of option 3, they are included here.*
34. *Under the existing regime, if a change or extension to the project requires a new Environmental Assessment to be produced, the operator of a site must stop work. However, the running costs of the site are not significantly reduced so there is little immediate cost saving, while the total length of time for completion of the project is put back. Typically, the process of filing, and having approved, an Environmental Statement takes one year. The average timescale of a civilian nuclear decommissioning project is 100 years so the cost of the year extension must be discounted to take*

this into account. The average running costs for a civilian nuclear decommissioning project are in the order of £50,000,000 per year, in 2005 prices.

35. Under option 3, only a portion of the site will be required to stop work. The total length of time taken to complete the project will therefore be extended by less than a year. The specific length of time will depend on the details of each decommissioning plan so the following possibilities are considered:
- (i) project length extended by 8 months (for a 12 month initial delay)
  - (ii) project length extended by 4 months (for a 12 month initial delay)
36. Decommissioning projects are split into phases and changes to the existing plans may occur at any stage.<sup>1</sup> The number of such changes, by their nature, is hard to predict. For illustrative purposes, the following schedule of changes (including three possible scenarios) is assumed:

	Phase 1	Phase 2	Phase 3	Total
<b>Scenario A</b>	3	3	6	12
<b>Scenario B</b>	4	6	8	18
<b>Scenario C</b>	5	9	10	24

**Table 1: Predicted number of "changes or extensions"**

37. The present value and annualised cost savings generated by these scenarios are given in the following table.<sup>2</sup>

		Present Cost Saving	Annualised Cost Saving
Scenario A	Possibility (i)	£7,900,000	£242,000
	Possibility (ii)	£16,700,000	£514,000
Scenario B	Possibility (i)	£10,200,000	£313,000
	Possibility (ii)	£22,300,000	£686,000
Scenario C	Possibility (i)	£11,700,000	£360,000
	Possibility (ii)	£26,600,000	£816,000

**Table 2: Project Extension Cost Savings**

38. The total economic benefits for this option are made up of the cost savings from shortened total project time. The savings range from £7,900,000 to £26,600,000 in present value terms, depending

<sup>1</sup> Civilian decommissioning projects are typically split into three phases. The first phase is made up of post-defuelling clean-up and work to make the site safe for the second phase. The second phase is the "care and maintenance" phase, during which the site is left to allow for natural radioactive decay. The final phase is "site clearance" where the site is returned to a state fit for future use.

<sup>2</sup> Annual figures in this document have been calculated by dividing the present value of the cost by an annualisation factor. This transformation gives a figure which represents a yearly flow of funds which, when discounted over the appraisal period of 100 years, equals the present value. For this document the annualisation factor is 32.55.

on the assumptions made. These can be expressed as annualised figures of £242,000 and £816,000 respectively.

### **Total benefits**

39. *There are no additional benefits for option 1.*
40. *There is a possible environmental benefit under option 2 if the Environmental Impact Assessments carried out by the Ministry of Defence lead to some new environmental issues being addressed.*
41. *Option 3 has a potential (non quantified) benefit, if reducing the total time taken to complete a decommissioning project has positive health and safety or environmental outcomes. Option 3 also presents economic benefits in the range £7,900,000 to £26,600,000 in present value terms or £242,000 to £816,000 in annualised terms.*

## **COSTS**

### **Social Costs**

42. There are no social costs anticipated for any of the options.

### **Environmental Costs**

43. There are no environmental costs expected under any of the options.

### **Economic Costs**

#### **Option 1**

44. There are no extra economic costs under option 1.

#### **Option 2**

45. Option 2 removes the exemption applied to nuclear decommissioning projects “serving national defence purposes” and, as such, the Ministry of Defence will be required to produce Environmental Statements for these projects
46. The decommissioning of the submarines will take place at designated ISOLUS (Interim Storage of Laid Up Submarines) sites. There may be up to 4 such sites, each of which will need to carry out Environmental Impact Assessments and produce Environmental Statements. The cost for each of these statements is estimated at £300,000 in 2005 prices.
47. The Environmental Statements will be assessed, and consulted on, by HSE. Assuming each assessment takes 2 days work for a Band 1 official, 53 days for a band 3, 64 days for a band 5 and 20 days for a band 6, it is expected to cost HSE £19,000 per statement, in 2005 prices.

48. There are assumed to be four environmental assessments at the beginning of the decommissioning work and that over the following years there are between 5 and 10 changes or extensions which are evenly spread over time. The costs of producing and assessing the environmental statements will be as follows.

	<b>Cost to MoD</b>	<b>Cost to HSE</b>	<b>Total Cost</b>
5 changes	£2,300,000 (£72,000)	£151,000 (£5,000)	£2,500,000 (£77,000)
10 changes	£3,600,000 (£109,000)	£228,000 (£7,000)	£3,700,000 (£113,000)

**Table 3: Cost of Environmental Statements to MoD and HSE  
Present Costs (Annualised figures in brackets)**

49. Producing, and receiving approval following, an Environmental Statement typically takes one year. During this time, no work can be carried out at the site and the completion of the project is put back by a year. The cost of one years work on a site in current prices is £2,600,000. As the effect of the stop in work is to put back the completion date of the project, this figure must be discounted, as presented in table 4.

	<b>Total Net Cost</b>	<b>Annualised Cost</b>
5 changes	£5,000,000	£153,000
10 changes	£9,200,000	£284,000

**Table 4: Costs to MoD from Project Extension (Option 2)**

50. The total economic costs for this option are between £7,500,000 (5 additional changes) and £12,900,000 (10 additional changes) in present value terms or between £229,000 and £397,000 as annualised figures.

### **Option 3**

51. *Under option 3, the MoD may be required to stop work on only a portion of an ISOLUS site, when producing an Environmental Statement. This would mean that the total length of the project would be extended by less than the year which it typically takes to have an Environmental Statement produced and approved. As such, the costs faced by the MoD will be lower than under option 2. As the exact extent to which the completion date for a project might be put back is uncertain, table 5 considers two scenarios:*

- (i) project length extended by 8 months (for a 12 month initial delay)*
- (ii) project length extended by 4 months (for a 12 month initial delay)*

		<b>Total Net Cost</b>	<b>Annualised Cost</b>
5 changes	Possibility (i)	£3,100,000	£94,000
	Possibility (ii)	£2,100,000	£64,000
10 changes	Possibility (i)	£6,800,000	£207,000
	Possibility (ii)	£3,100,000	£94,000

**Table 5: Costs to MoD from Project Extension (Option 3)**

52. The total economic costs for this option are made up of the project extension costs given in table 5 and the direct costs of producing Environmental Statements, given in table 3 (as for option 2). These costs add up to between £4,600,000 (5 additional changes, scenario ii) and £10,400,000 (10 additional changes, scenario i) in present value terms or between £140,000 and £321,000 as annualised figures.

#### **Total costs to society**

53. There are no costs for option 1.
54. The total costs to society for option 2 are between £7,500,000 and £12,900,000 in present value terms or between £229,000 and £397,000 as annualised figures.
55. The total costs for option 3 are between £4,600,000 and £10,400,000 in present value terms or between £140,000 and £321,000 as annualised figures.

#### **BALANCE OF COSTS AND BENEFITS**

56. This RIA has not attempted to quantify all the benefits associated with the three options presented. These benefits include the effects of the introduction of Environmental Impact Assessments for defence related projects and, importantly, the shortening of the timescale for decommissioning of civilian nuclear power plants.
57. Option 1 does not have any extra costs associated with it and option 2 has costs of between £7,500,000 and £12,900,000, depending on the assumptions made (£229,000 to £397,000 annualised). Option 3 has costs between £4,600,000 and £10,400,000 (£140,000 and £321,000 annualised).
58. The major benefits accrue under option 3, in the form of cost savings. These benefits range from £7,900,000 to £26,600,000 (£242,000 to £816,000 annualised).
59. The ranges presented above suggest that the overall benefits outlined for option 3 are likely to outweigh the costs associated with bringing defence projects into the remit of the legislation.



## Uncertainties

60. Many of the figures and assumptions in this document are based on estimates of the most likely outcomes, which cannot be known for certain.
61. In particular, it is extremely difficult to estimate how many changes are likely to be required to an existing plan of work. By definition, the existing work plan should take into consideration all anticipated future events. Therefore the only changes which will occur are those which cannot be predicted. For the purpose of this document, this means that estimates of both the number of future changes and the relative costs of those changes are likely to be inaccurate.
62. Under options 2 and 3, the Ministry of Defence retains an option of applying for specific exemptions from the regulations for parts of the decommissioning process. If the MoD were to exercise this option, there would be a cost to the MoD associated with producing the exemption and a cost to the relevant Secretary of State in assessing the application. These costs would amount to approximately £46,000 for the first exemption application and £13,000 for subsequent applications. There may also be substantial cost savings, as the MoD would avoid the costs associated with producing an Environmental Statement. However, on the basis of its current understanding, the MoD does not anticipate that there will be a need for any exemptions. Therefore these costs and benefits have not been included in the analysis above.
63. The schedule set out in Table 1 implicitly assumes that the number of “changes or extensions” is independent of the regime under which a site is operating. This is the case where such changes are driven by regulatory concerns. It is possible that the introduction of option 3 would induce an increase in discretionary applications for changes by site operators, as it reduces the cost of making such a change. The possibility of such changes has not been considered in this RIA, although it can be seen that such changes would only take place if the net benefits to the operator were greater than zero.
64. Broad estimates have also been made regarding some of the details of the military nuclear reactor decommissioning process as some of this information is classified.
65. In order to address these problems a range of possible values for the main variables have been presented to give a range of possible outcomes.

## SMALL FIRMS IMPACT TEST

66. These proposed amendments will have no impact on small firms because it will effect decommissioning projects that employ substantially more employees than the number defined for a small firm.<sup>3</sup>
67. However, future work on certain aspects of a decommissioning project *could* be subcontracted to outside companies, some of which may be small firms as defined in this RIA.

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<sup>3</sup> Small firms are defined as firms with fewer than 50 employees, less than £4.4m turnover pa or less than £3.18m balance sheet pa, and no more than 25% of the business owned by a non-small business.

68. Therefore, there could well be a scenario where work on part(s) of the site could be stopped - because there's a change/extension on that part(s) of the decommissioning project that results in a SAEE - until an Environmental Statement has been completed and consulted on. This may have a disproportionate impact on a small firm if they are sub-contracted to undertake work where such a change occurs.
69. However, the effect of this cannot be evaluated at the moment, because work on a decommissioning project(s) has yet to be sub-contracted to a small firm (as defined), and even if it was the impact on that small firm needs to be considered in relation to what ever contract is actually agreed.
70. The amendments required in order to correct the typographical errors identified by the JCSI and the changes made to the EIADR99's parent directive are not expected to have an impact on small firms (as defined).

## **COMPETITION ASSESSMENT**

71. All three of the considered options are based upon the same set of regulations and do not impact differentially on the sector under consideration. For this reason all three options are considered together for this competition assessment.
72. The sector affected by the EIADR regulations is dominated by the Nuclear Decommissioning Authority (NDA). Although it is likely that the NDA will employ other organisations for some or all of the work carried out, it is the NDA which will be directly affected by the regulation so this competition assessment only considers the effects on the NDA.
73. The NDA is a large public body which has over 50% market share in the nuclear decommissioning sector. The regulations being considered are not likely to have any effect on the structure of the industry at this level and will not affect any other organisation to a greater or lesser extent than the NDA.
74. Any future operators in the sector would face exactly the same regulatory costs (both start-up and ongoing) as the NDA and the nuclear decommissioning sector is not characterised by a market that allows firms to choose their output mix.
75. The sector is characterised by rapid technological change, but given the above analysis, it is not considered that any of the options presented will have a significant effect on competition in the nuclear decommissioning sector.

## **ENFORCEMENT AND SANCTIONS**

76. The proposed amendments will be enforced by HSE as per regulation 16 of the EIADR99. Applications for a decommissioning project to begin or change - if a change/extension takes place on a part(s) of a site where there's a SAEE - have to comply with the requirements of the EIADR99. There are no alternative means of compliance/enforcement, so there is no consideration on the (i.e. the alternative) likely costs and impact rates.

77. The sanctions for non-compliance are detailed in sections 18 to 26 and 33 to 42 of the Health and Safety at Work Act 1974.

### **IMPLEMENTATION AND DELIVERY PLAN**

78. It is planned for these amendment regulations to come into force on the next common commencement date of 6 April 2006. The regulations will be announced in a press release, and key and nuclear-interested stakeholders will receive advance notice through a postal mail shot and/or email message. Additional publicity of the changes will be posted on the HSE website and mention will be made in the press release where the amendment regulations can be found. Existing resources within HSE will implement the amendment regulations. Plans on how compliance with the proposal will be enforced are detailed in paragraphs 74-75.

### **POST - IMPLEMENTATION REVIEW**

79. It expected that an evaluation of the impact of these amendments would be made three years after implementation. In order to gauge the impact, information will need to be gathered from stakeholders on the effectiveness of the amendments although the means to do this will not be decided until nearer the review date. In the interim period, the effects of the proposed amendments can be monitored by any feedback received from stakeholders through the existing channels of communications.

### **SUMMARY AND RECOMMENDATION**

80. A summary of the costs and benefits of the three options presented in this document are given in the following table. The ranges presented give an indication of the possible outcomes, given varying assumptions and estimates. The end points of the ranges are considered less likely to materialise than the mid points.

<b>Option</b>	<b>Costs</b>	<b>Benefits</b>	<b>Net Benefit</b>
1	0	0	0
2	£7.5M to £12.9M	0	-£7.5M to -£12.9M
3	£4.6M to £10.4M	£7.9M to £26.6M	-£2.6M to £22.0M

**Table 5: Quantified Summary Cost and Benefit Figures**  
All figures are net present values in £millions

81. There are a number of unquantified benefits associated with the options presented. Under option 2 this includes the environmental benefits of the MoD producing Environmental Statements and under option 3, the social benefit of a shorter project length for civilian (and military) decommissioning projects.
82. The average net benefit under option three is positive and, as such, it is recommended that option three is taken forward.

### **Ministerial Declaration**

83. I have read the Regulatory Impact Assessment and I am satisfied that the benefits justify the costs.
84. Signed: *Philip Hunt* – Lord Hunt of Kings Heath OBE
85. Date: 8th March 2006

### **Contact point**

Colin Potter  
Policy Group, HSE  
Rose Court 2  
Southwark Bridge  
London SE 1 9HS

Tel: 020 7717 6883

**Proposals for amendments to the Nuclear Reactors  
(Environmental Impact Assessment for Decommissioning)  
Regulations 1999:**

**Main points made to Consultation Exercise**

The public consultation on the proposals to amend the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations 1999 was undertaken during the period 01 August – 31 October 2005.

The consultation document was available as an online document only from HSE's website and advance notice of its availability was made to a variety of organisations (industry, trade unions, environment groups, local authorities, devolved administrations and other government departments and other stakeholders with an interest in nuclear matters).

The consultation document contained the draft amendment regulations and the draft Regulatory Impact Assessment and sought comments on the proposals.

A copy can be found at [www.hse.gov.uk/consult/condocs/eiadr05.htm](http://www.hse.gov.uk/consult/condocs/eiadr05.htm)

This document summarises the main points made to the proposal. All of the comments to the consultation are available for viewing in HSE's Information Centres.

**RESPONDENTS**

13 comments were received. The respondents were as follows:

MoD  
Semple Fraser  
R Hargreaves (Councillor for St John's Parish & Sellafield Stakeholder Group Member)  
Maldon District Council  
Food Standards Agency  
UKAEA  
Somerset County Council  
ODPM  
NDA  
Essex Wildlife Trust  
Dumfries & Galloway Council  
Dept of Environment, Heritage and Local Government, Ireland  
British Nuclear Group

8 responses were in favour of the proposal, 3 offered further suggested changes, one made no comment and just one response from an individual was against the proposal.

## MAIN POINTS MADE + HSE RESPONSE

1. The assessment is based on £300K/yr as the cost of one years work on each of the sites (ie stopping work for a year), which is not the same as the cost we provided of stopping work on a defuelled reactor of £300K per year per boat. We have discussed this with the ISOLUS project team to try and get an idea of the cost of stopping work on an ISOLUS site. This was not easy to determine as there are a number of different variables including throughout (number of submarines going through the site/yr), at what period in time we stopped operations and taking into account the impacts downstream of stopping work.

Based on average costs over a 20 year period, we estimate this to be in the order of £6.2M/yr per ISOLUS site, which includes the cost of storing submarines for an additional year as a result of stopping operations and costs to maintain the site

HSE Response: *Regulatory Impact Assessment updated accordingly.*

2. As a result of Article 8 of Directive 2003/35/EC, amendments do now require to be made to regulation 13(1) of SI 1999/2892, to deal with changes/extensions to decommissioning projects, or to individual phases thereof. At present, the regulations (following the 1997 EIA-amending Directive) treat changes/extensions to decommissioning projects as, in effect, Annex II projects, thus explaining why regulation 13(1) currently requires the Executive to apply the "Annex III" criteria from Schedule 2 in assessing whether the change/extension is significant. Accordingly, in light of Directive 2003/35/EC, regulation 13(1) needs to be completely rewritten, to reflect the new status of changes/extensions to decommissioning projects -as Annex I projects in their own right.

HSE Response: *Art 3.8 of 2003/35/EC adds a new point 22 to Annex 1 of 85/337/EEC. The amendment works to bring into annex I, instead of annex II projects where the change to the project has made it cross the threshold to bring it within Annex I.*

*This is not relevant to the EIADR because the EIADR only cover projects that are already within annex 1 (reg 3(1) scope). This amendment is relevant to projects that were not already within annex I and such projects would not be within the EIADR. Thus no further amendment to reg 13(1) is required.*

3. What has been proposed by way of change to regulation 13(1) is completely inappropriate in these circumstances. The suggestion in the consultation paper that money can be saved by allowing other parts of the overall decommissioning project to proceed while the ES for the change/extension is prepared and considered is entirely misplaced. I would accept that there may be circumstances where the overall project may proceed while the change/extension is separately assessed, but I would suggest that that would only be appropriate where the change/extension was virtually de minimis (which, of course, cannot be known until the EIA process has been completed!).

Contrary to what is proposed, I would suggest that in many circumstances a change or extension to a decommissioning project may have a knock-on effect on the overall decommissioning project, or the particular phase of the project (indeed, may be inextricably linked to it), and in those circumstances it seems to me to be entirely appropriate (and consistent with the Directive) for the project as a whole (or the current phase which is being changed or extended) to be halted while the impact of the change or extension to the overall project is considered. I cannot imagine that the ECJ would ever countenance a situation where the UK had decided to exclude that possibility.

*HSE Response: Reg 13 requires the licensee to apply to HSE for a determination if the change or extension MAY have a significant adverse effect on the environment. Under the revised regs, this still applies. Decommissioning must cease on any parts of the project affected by the change.*

*If HSE decides that an EIA is required, then the change cannot begin until the effects of that change (on all relevant aspects of the environment as per schedule 1) have been assessed in full under the EIADR process. Thus allowing the other parts of the project to continue (unchanged) during this process will not change the impact on the environment. The only impact will occur if and when the change itself is implemented following submission of an ES and consultation (or if HSE determines that an EIA is not required).*

*Any potential 'knock on effect' would need to be assessed as part of the EIA for the change (the EIA includes effects that are direct, and indirect, secondary, cumulative, short, medium and long-term, permanent and temporary). As a knock on effect would be an indirect, secondary or cumulative effect, it would be included in the EIA for the change.*



4. The extent to which the draft regulations incorporate the various changes on public participation into SI 1999/2892. I note with concern the statement in the RIA that the government's attitude, by and large, is that the existing regulations "already comply in practice" with the public participation requirements. With HMG's record before the ECJ and in pre-court warnings from the Commission, this seems to amount almost to hubris! Where, for example, do either the existing regulations, or the draft regulations, deal with the following points:

-How are the public informed of the detailed arrangements which apply for assessing the public responses (e.g. will there be written submissions, or a public enquiry)? -how are they informed about "the nature of possible decisions" ?

-How are they informed about the means by which they may challenge the decision?

-What "reasonable time frames" for the different phases of advertising and then consideration of the public's response have been explicitly provided for?

HSE Response: - *Regulations require that HSE places a press notice local to site, that a report on the decision is made public. In addition (although this is not required) HSE writes to all respondents after the decision is made and their comments are addressed. The regulations give requirements for publicising the consultation (duty of the licensee) & HSE publicises on its website & draws up consultation lists to include a wide variety of consultees (included in decision report): see regs 9 and 11 and guidance for details*

*- Decision reports are published documents that are available on HSE web site, are sent to consultees, and are available in public buildings e.g. libraries relevant to the site. There is no appeal mechanism in the regulations. However, decisions relating to these regulations can be challenged by way of Judicial Review*

*- Time frames for different phases are detailed extensively in the EIADR, eg Reg 8, 9, 10 and 12.*

5. The public participation Directive introduces new rules on access to procedural and substantive review to challenge the consent decision. What steps have been taken in this regard? Similarly, the Directive introduces important new rules designed to afford legal standing to environmental groups, and facilitate challenges by them. Again, what steps have been taken in this regard?

HSE Response: *The public are informed of arrangements for assessing public responses by the existing reg 11 c) ii) and the amendment. This is after the consent is made. Decisions relating to these regulations can be challenged by way of Judicial Review*

6. Two general comments. The first is that to produce a consultation paper that asserts that "key" stakeholders have already been consulted who broadly agree your proposals makes the "consultation" with (by definition "non-key" people) look second rate. Also, on timing, it is unfortunate that this consultation is being effected only now, over a month after the public participation directive too effect, and over two years since its publication.

HSE Response: *HSE routinely consults its regular contacts from other government departments, industry and other interested stakeholders to check whether any proposals are broadly acceptable and achievable. Thus, when a formal consultation is undertaken, it is hoped that the prior, informal consultation has produced a fit-for-purpose proposal that removes any obvious problems that HSE, by itself, might not have identified.*

*However, this does not mean subsequent comments received are 'second rate'. On the contrary, they may identify gaps the informal consultation failed to identify, and help gauge the level of support for the proposal. In terms of timing, the timetable has been affected because of the time taken to reach agreement within Government.*

7. The EIADR Regulations do not appear to have taken account of the amendment made to Article 1(2) of the EIA Directive by Article 3 of 2003/35/EC.

HSE Response: *Agree. Regulation 9 will now be amended to take account of the amendment made to Article 1(2) of the EIA Directive by Article 3 of 2003/35/EC.*

*This amendment is included alongside the other proposed changes in the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) (Amendment) Regulations 2006.*

8. To support the proposed amendment for 13(1) it may be beneficial to similarly amend 13(4) to the effect that only those parts of the project that are changed or extended and such further aspects of the project that the HSE may specify are subject to anew or repeat EIA.

HSE Response: *This would be otiose and likely to be criticised by the Joint Committee on Statutory Instruments (JCSI).*

## **Annex C**

The text of Council Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment may be found in the 'Official Journal of the European Union' as follows (O.J. No. L175, 5.7.1985, p.40), as amended by Council Directive 97/11/EC (O.J. No. L73, 14.3.1997, p.5). The Official Journal may be accessed online at:-

<http://europa.eu.int/eur-lex/lex/JOIndex.do?ihmlang=en>