

Title: Regulating security in the construction phase of new build nuclear power stations (secondary legislation) [This is a public version of this Impact Assessment] IA No: DECC0090 Lead department or agency: DECC Other departments or agencies:	Impact Assessment (IA)				
	Date: 01/05/2012				
	Stage: Final				
	Source of intervention: Domestic				
	Type of measure: Secondary legislation				
Contact for enquiries: David Bligh					

Summary: Intervention and Options	RPC: Green
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Cost of Preferred (or more likely) Option

Total Net Present Value	Business Net Present Value	Net cost to business per year (EANCB in 2009 prices)	In scope of One-In, One-Out?	Measure qualifies as
-£3.6m	-£3.6m	£0.65m (cost)	No	Out of Scope

What is the problem under consideration? Why is government intervention necessary?

The UK has in place a comprehensive regulatory regime to ensure that security in the UK's civil nuclear industry is robust and effective. This is one of the Government's highest national security priorities. The security regime was set up in its current form in 2001-2003 when the construction of new nuclear power stations was not thought likely. As a result the new regime was concerned with locations including existing civil licensed nuclear sites where nuclear material or other radioactive material was already present. It did not take account of any new civil nuclear facilities which might be constructed. Since then new nuclear build has become a realistic prospect with eight potential sites for new nuclear power stations identified in the draft nuclear national policy statement that the Government consulted on in October 2010. All of these sites are adjacent to existing civil nuclear facilities. The Government looked again at the regulatory framework and concluded that it needed to be updated because the security regulator did not have powers to regulate while nuclear facilities were being constructed. A need was recognised to protect adjacent civil nuclear sites from potential threats from the construction site and also to address security on the site under construction so that the new facility will operate safely once construction is complete. Existing primary legislation (the Anti-terrorism, Crime and Security Act 2001) did not contain the necessary powers to do this. The Government therefore included in the Energy Act 2011 a power to make regulations on security at civil nuclear construction sites within 5km of existing nuclear facilities.

What are the policy objectives and the intended effects?

The policy objectives are to ensure that security in the civil nuclear industry continues to be robust and effective and to meet the UK's Treaty obligations on nuclear security.

What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)

- Do nothing and rely on existing security measures at neighbouring nuclear facilities,
- New security regulations are made under the powers widened by the Energy Act 2011 to amend the Nuclear Industries Security Regulations so that the security regulator, the Office for Nuclear Regulation (ONR), can require industry to put in place approved security measures during the construction phase of new civil nuclear facilities.

Option 2 is recommended because: it will ensure that the UK's security regime for the civil nuclear industry continues to be robust and comprehensive; it will ensure that the UK continues to meet its international commitments and obligations in the field of civil nuclear security (especially the amended Convention on the Physical Protection of Nuclear Material); and it will fulfil public expectations about security in the civil nuclear industry.

Will the policy be reviewed? It will be reviewed in February 2018					
Does implementation go beyond minimum EU requirements? No			N/A		
Are any of these organisations in scope? If Micros not exempted set out reason in Evidence Base.	Micro No	< 20 No	Small No	Medium No	Large Yes
What is the CO2 equivalent change in greenhouse gas emissions? (Million tonnes CO2 equivalent)			Traded: n/a		Non-traded: n/a

I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options.

Signed by the responsible Minister: **John Hayes**

Date: **31/01/2013**

Summary: Analysis & Evidence:

Policy Option 1

Description: Do nothing rely on existing measures (including existing security measures at neighbouring civil nuclear facilities).

FULL ECONOMIC ASSESSMENT

Price Base Year	PV Base Year	Time Period Years	Net Benefit (Present Value (PV)) (£m)		
			Low: zero	High: zero	Best Estimate: zero
COSTS (£m)	Total Transition (Constant Price) Years		Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)	
Low	Optional		Zero	Zero	
High	Optional		Zero	Zero	
Best Estimate	zero		Zero	Zero	
Description and scale of key monetised costs by 'main affected groups' By definition, there are no costs associated with the 'do nothing' option.					
Other key non-monetised costs by 'main affected groups' By definition, there are no costs associated with the 'do nothing' option.					
BENEFITS (£m)	Total Transition (Constant Price) Years		Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)	
Low	Optional		Zero	Zero	
High	Optional		Zero	Zero	
Best Estimate	Zero		Zero	Zero	
Description and scale of key monetised benefits by 'main affected groups' By definition, there are no benefits associated with the 'do nothing' option.					
Other key non-monetised benefits by 'main affected groups' By definition, there are no costs associated with the 'do nothing' option.					
Key assumptions/sensitivities/risks NA.				Discount rate (%)	

BUSINESS ASSESSMENT (Option 1)

Direct impact on business (Equivalent Annual) £m:			In scope of OIOO?	Measure qualifies as
Costs: zero	Benefits: zero	Net: zero	NA	Out of Scope

Summary: Analysis & Evidence

Policy Option 2

Description: New security regulations are made under the powers widened by the Energy Act 2011 to amend the Nuclear Industries Security Regulations so that the security regulator, the Office for Nuclear Regulation (ONR), can require industry to put in place approved security measures during the construction phase of new civil nuclear facilities.

FULL ECONOMIC ASSESSMENT

Price Base Year 2009	PV Base Year 2012	Time Period Years 5	Net Benefit (Present Value (PV)) (£m)		
			Low: -£3.0m	High: -£4.2m	Best Estimate: -£3.6m
COSTS (£m)	Total Transition (Constant Price) Years		Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)	
Low	NA		£660k	£3.0m	
High	NA		£780k	£4.2m	
Best Estimate	NA		£910k	£3.6m	
Description and scale of key monetised costs by 'main affected groups'					
An operator of a construction site would bear the cost of ensuring security. This will include the costs of physical security measures, personnel security measures, inspections by the security regulator to ensure compliance, and the site operator's own administrative costs. It is estimated that these costs (per operator) in total will have a NPV of between £3.0m and £4.2m over the construction period with a central estimate of £3.6m.					
Other key non-monetised costs by 'main affected groups'					
None.					
BENEFITS (£m)	Total Transition (Constant Price) Years		Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)	
Low	NA		Zero	Zero	
High	NA		Zero	Zero	
Best Estimate	NA		Zero	Zero	
Description and scale of key monetised benefits by 'main affected groups'					
While it is difficult to put a monetised value on the benefits of regulation in the civil nuclear security industry, the proposals will ensure that the UK's security regime for the civil nuclear industry continues to be robust and comprehensive.					
Other key non-monetised benefits by 'main affected groups'					
The proposal will ensure that the UK continues to meet its international commitments and obligations in the field of civil nuclear security (especially the amended Convention on the Physical Protection of Nuclear Material); and it will fulfil public expectations about security in the civil nuclear industry.					
Key assumptions/sensitivities/risks				Discount rate (%)	3.5
<ul style="list-style-type: none"> Key assumptions are: the analysis is based on one operator / site, with costs for a security measures commencing in 2012/13 and continuing to be incurred over a period of 5 years prior to operation of the nuclear power station. Cost estimates are based on a combination of information from industry and the security regulator. 					

BUSINESS ASSESSMENT (Option 4)

Direct impact on business (Equivalent Annual) £m:			In scope of OIOO?	Measure qualifies as
Costs: £0.65m	Benefits: Zero	Net: £0.65m	No	Out of Scope

Evidence Base

Problem Under Consideration

1. Nuclear power is regarded as an important element of the low carbon energy mix for the UK. Ensuring the security of the civil nuclear industry is a top priority for the Government. In addition the UK has international treaty obligations on civil nuclear security.
2. We need to ensure that the regulatory regime for security in the civil nuclear industry will address the needs of security at nuclear new build construction sites.
3. The current regime to regulate security in the UK's civil nuclear industry was set up in 2001-3. At that time new nuclear build was not a serious prospect and the new security regime was set up to ensure full coverage for existing operating locations in the civil nuclear industry rather than to take account of new build. Under the current regime, sites are not regulated before nuclear material or other radioactive material is stored or used on it.
4. Since then new nuclear build has become a realistic prospect with eight potential sites for new nuclear power stations identified in the Nuclear National Policy Statement (NPS) that was designated in July 2011. All of these sites are adjacent to existing civil nuclear facilities. The Government looked again at the regulatory framework and concluded that it needed to be updated because the security regulator did not have powers to regulate while nuclear facilities were being constructed. A need was recognised to protect adjacent civil nuclear sites from potential threats from the construction site and also to address security on the site under construction so that the new facility will operate safely once construction is complete. Existing primary legislation (the Anti-terrorism, Crime and Security Act 2001) did not contain the necessary powers to do this. The Government therefore included in the Energy Act 2011 a power to make regulations on security at civil nuclear construction sites within 5km of existing nuclear facilities.

Policy Objectives

5. Our policy objectives are to ensure that there is robust and effective security in place within the civil nuclear industry and to ensure that the UK continues to meet its international obligations and commitments in this area.
6. The UK takes a leading role in the International Atomic Energy Agency (IAEA), the UN body, on nuclear security matters and is a party to the IAEA Convention on the Physical Protection of Nuclear Material (CPPNM), an international treaty signed by many countries.

Identifying options

7. Two main policy options were considered:
 - a. Do nothing and rely on existing security measures at neighbouring nuclear facilities,
 - b. New security regulations are made under the powers widened by the Energy Act 2011 to amend the Nuclear Industries Security Regulations so that the security regulator, the Office for Nuclear Regulation (ONR), can require industry to put in place approved security measures during the construction phase of new civil nuclear facilities.
8. Option 2 is recommended because: it will ensure that the UK's security regime for the civil nuclear industry continues to be robust and comprehensive; it will ensure that the UK continues to meet its international commitments and obligations in the field of civil nuclear security (especially the amended Convention on the Physical Protection of Nuclear Material); and it will fulfil public expectations about security in the civil nuclear industry.

Monetised and non-monetised costs and benefits of each option

9. Table 1 below summarises the Net Present Value (NPV) estimates for the preferred policy option of implementing new regulations for governing security at new nuclear construction sites. It is estimated that the total cost to an operator in NPV terms would be between £3.0m to £4.2m, with a central estimate of £3.6m (2009 prices) over an appraisal period of five years. By definition, under Option 1 (counterfactual), there are no additional quantifiable costs or benefits to operators or the Government from not introducing new regulations as it would maintain the status quo.

Table 1: Net Cost/Benefit of Preferred Policy Option, 2009 Prices.

		Net Present Value (NPV), 2012
TOTAL COSTS	Low	£3.0m
	Central	£3.6m
	High	£4.2m

10. As there are no offsetting quantifiable benefits from the introduction of security regulations, the estimated additional cost to industry is the equivalent to the net economic impact at societal level i.e. a cost of £3.6m under the central case.

Rationale and evidence that justify the level of analysis used in the IA (proportionality approach)

11. These measures have a financial impact on operators and the costs have been assessed based on information received from regulators and industry. The cost ranges presented for the preferred option reflect the level of uncertainty at this time.
12. The analysis demonstrates that the costs to be recovered from industry are likely to be relatively small in the context of the costs of new build nuclear power stations.

Assumptions

13. The analysis is based on the following assumptions:

- The counterfactual is that no new regulations are introduced as reflected in our 'do nothing' option.
- The analysis is based on the costs to an operator in relation to one new nuclear power station. This is because (i) the security measures will be required for each site, and (ii) there is uncertainty over the number of new nuclear power stations that will be built in the UK and the timescales over which they will be deployed.
- An appraisal period of 5 years has been used based on the assumption that the costs for security measures commence in 2012/13 and continue to be incurred over a period of 5 years prior to operation.
- Cost estimates are based on information received from industry and the regulators.
- The HM Treasury Green Book discount rate of 3.5% has been used to produce the NPV estimates.

Direct costs and benefits to business calculations (following OIOO methodology)

14. The proposed regulations would result in additional costs to nuclear operators. As such, it is estimated that the changes would result in an Equivalent Annual Net Cost to Business (EANCB) of -£0.65m per operator over an appraisal period of five years i.e. the period of time over which the costs of security measures would be incurred by the operator.

15. Whilst the new regulations would increase costs for operators, the policy is out of scope of the One-In-One-Out (OIOO) as the UK is meeting its obligations under the amended Convention on the Physical Protection of Nuclear Material.

Competition Assessment

16. None of the options are likely to:

- directly limit the number or range of suppliers;
- indirectly limit the number or range of suppliers;
- limit the ability of suppliers to compete; and
- reduce suppliers' incentives to compete vigorously.

Small Firms Assessment

17. None of the consortia which are due to undertake new nuclear build are small firms. They are:

- NNB GenCo (EDF and Centrica)
- Horizon Nuclear Power (Hitachi)
- NuGen (Iberdrola, GDFSuez and SSE)

18. All are classified as large companies as they have more than 250 employees.

Sustainable Development Assessment / Greenhouse Gas Assessment / Wider Environmental Issues

19. Ensuring that security is effective at proportionate at new build construction sites will facilitate new nuclear build. New nuclear build will contribute to the UK's climate change and low carbon objectives.

Review and Sunsetting

20. The Government keeps legislation on security in the civil nuclear industry under constant review. The regulations will be reviewed formally after 5 years.

21. The regulations do not contain a sunsetting clause as this is not the practice for legislation on security in the civil nuclear industry.