

<b>Title:</b> The National Objectives, Requirements and Model Standards (NORMS)  <b>IA No:</b> DECC0087  <b>Lead department or agency:</b> The Office for Nuclear Regulation (ONR) <b>Other departments or agencies:</b> DECC	<b>Impact Assessment (IA)</b>			
	<b>Date:</b> 29/06/2012			
	<b>Stage:</b> Final			
	<b>Source of intervention:</b> Domestic			
	<b>Type of measure:</b> Other			
<b>Contact for enquiries:</b> Anastasia Theodorou				
<b>Summary: Intervention and Options</b>				<b>RPC: Opinion Status:</b> AMBER

Cost of Preferred (or more likely) Option				
Total Net Present Value	Business Net Present Value	Net cost to business per year (FANCR in 2009)	In scope of One-In, One-Out?	Measure qualifies as
-£9.1m	-£9.1m	£0.6m (cost)	No	Out of Scope

**What is the problem under consideration? Why is government intervention necessary?**  
In line the Government's better regulation principles and the principle of continuous improvement, and in common with other sectors such as civil aviation, it was proposed that the civil nuclear system should move to outcome-based regulation.

**What are the policy objectives and the intended effects?**  
The objective of this policy is to meet civil nuclear security requirements, as set out in the Nuclear Industry Security Regulations 2003 by moving away from a prescriptive regulatory regime to a more outcome-based, goal setting approach which focuses on performance measurement and gives greater flexibility in how the goals are met. The new document will allow sites to propose their own changes which satisfy security objectives, and this flexibility should increase the effectiveness and efficiency of the measures that are subsequently implemented.

**What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)**  
Two options were identified:  
1) Do nothing and rely on the existing prescriptive approach to regulation (as set out in the 'Technical Requirements Document' (TRD), which is updated periodically to include incremental improvements)  
2) Move to an outcome focused regulatory regime (by issuing a new set of outcome-focused guidelines, to be known as the "National Objectives, Requirements and Model Standards (NORMS)") (**preferred option**)  
**Option 2** is recommended to ensure appropriate security measures are in place and to foster a robust security culture via a more 'outcome focused' regulatory regime. Nuclear operators will benefit from more proportionate guidance as they will have greater responsibility and flexibility for aligning their security measures with the specified regulatory outcomes.

<b>Will the policy be reviewed?</b> NA. If applicable, set review date: NA						
Does implementation go beyond minimum EU requirements?				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 Yes	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:  Date: 21 August 2012

Description: Do nothing and rely on the existing prescriptive approach to regulation

**FULL ECONOMIC ASSESSMENT**

Price Base Year N/A	PV Base Year N/A	Time Period Years	Net Benefit (Present Value (PV)) (£m)		
			Low: zero	High: zero	Best Estimate: zero
<b>COSTS (£m)</b>	<b>Total Transition (Constant Price) Years</b>		<b>Average Annual (excl. Transition) (Constant</b>	<b>Total Cost (Present Value)</b>	
Low	Zero		Zero	Zero	
High	Zero		Zero	Zero	
Best Estimate	Zero		Zero	Zero	
<p><b>Description and scale of key monetised costs by 'main affected groups'</b> Zero. By definition, there are no costs associated with the 'do nothing' option.</p>					
<p><b>Other key non-monetised costs by 'main affected groups'</b> This option does not take into account Government's policy on regulation, which includes where possible moving away from prescription to a more outcomes-based, goal setting approach nor does it help to develop a more skilled security culture across the UK's civil nuclear industry.</p>					
<b>BENEFITS (£m)</b>	<b>Total Transition (Constant Price) Years</b>		<b>Average Annual (excl. Transition) (Constant</b>	<b>Total Benefit (Present Value)</b>	
Low	Zero		Zero	Zero	
High	Zero		Zero	Zero	
Best Estimate	Zero		Zero	Zero	
<p><b>Description and scale of key monetised benefits by 'main affected groups'</b> Zero. By definition, there are no costs associated with the 'do nothing' option.</p>					
<p><b>Other key non-monetised benefits by 'main affected groups'</b> Zero. By definition, there are no costs associated with the 'do nothing' option.</p>					
<p><b>Key assumptions/sensitivities/risks</b> N/A</p>				<p><b>Discount rate (%)</b></p>	

**BUSINESS ASSESSMENT (Option 1)**

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

Description: Move to an outcome focused regulatory regime (NORMS)

Price Base Year 2012	PV Base Year 2012	Time Period Years 20	Net Benefit (Present Value (PV)) (£m)		
			Low: -£8.4m	High: -£9.9m	Best Estimate: -£9.1m
<b>COSTS (£m)</b>	<b>Total Transition (Constant Price) Years</b>		<b>Average Annual (excl. Transition) (Constant</b>		<b>Total Cost (Present Value)</b>
Low	£522k	2	£550k		£8.4m
High	£632k		£650k		£9.9m
Best Estimate	£577k		£600k		£9.1m
<b>Description and scale of key monetised costs by 'main affected groups'</b>					
<p>The costs to the nuclear industry as a whole are comprised of transitional costs and ongoing costs. Transitional costs include (i) the costs of supporting the development of the NORMS guidance document; (ii) costs of training provided by the ONR which will be recovered from industry and; (iii) the administrative costs of the ONR preparing the new guidance and recovering these costs from industry. Ongoing costs result from an expected increase in security staff across eleven nuclear facilities in order to manage and oversee the new approach. The overall societal costs are equivalent to the costs to industry.</p>					
<b>Other key non-monetised costs by 'main affected groups'</b>					
<p>There is a risk of inadequate or inefficient implementation of security measures to meet the outcomes required due to a lack of clear communications.</p>					
<b>BENEFITS (£m)</b>	<b>Total Transition (Constant Price) Years</b>		<b>Average Annual (excl. Transition) (Constant</b>		<b>Total Benefit (Present Value)</b>
Low	Zero	2	Zero		Zero
High	Zero		Zero		Zero
Best Estimate	Zero		Zero		Zero
<b>Description and scale of key monetised benefits by 'main affected groups'</b>					
<p>There are benefits to nuclear operators from the proposed change in approach to the regulatory guidance as it will introduce a more proportionate and flexible regime, but we are unable to quantify these impacts at this stage. Overall the intended effect is to ensure a more effective and efficient implementation of security measures at nuclear facilities and in doing so mitigate the risks of low probability-high impact events relative to the current prescriptive</p>					
<b>Other key non-monetised benefits by 'main affected groups'</b>					
<p>The NORMS document takes account of the Coalition Government's general principles outcomes based regulation, with the aim of resulting in a more positive and professional security culture across the civil nuclear industry. Nuclear site operators will under the NORMS approach have flexibility in the choice of security measures they implement in order to meet the required outcomes. While this has the potential to realise costs savings it has not been possible to quantify them at this stage.</p>					
<b>Key assumptions/sensitivities/risks</b>					<b>Discount rate (%)</b>
<ul style="list-style-type: none"> <li>- The counterfactual case is the existing 'TRD' document, as reflected in the do nothing option.</li> <li>- The new approach will apply across the whole civil nuclear estate as of the date of issue of NORMS, although sites will be given a defined period by the regulator to fully conform with the requirements.</li> <li>- It is assumed that a suite of new measures will not be required of industry based on the change of approach as sites already have extensive security in place based on TRD requirements – they are not starting from a zero baseline (incremental changes will be necessary periodically - as they currently are under TRD - but these are considered out of scope of this IA.)</li> <li>- Costs were assessed over an appraisal period of 20 years.</li> <li>- A key risk is inadequate or inefficient implementation of security measures to meet the outcomes required</li> </ul>					3.5%

**BUSINESS ASSESSMENT (Option 2)**

<b>Direct impact on business (Equivalent Annual) £m:</b>			<b>In scope of OIOO?</b>	<b>Measure qualifies as</b>
Costs: £0.6m	Benefits: zero	Net: -£0.6m	No	Out of Scope

## Evidence Base

### Problem Under Consideration

---

1. In line the Government's better regulation principles and in common with other sectors such as civil aviation, it was proposed that the civil nuclear system should move to outcome based regulation, where appropriate which will facilitate sites to think expansively around security risks and mitigations. Outcome based regulation means placing greater emphasis on high-level rules and principles, with flexibility as to how they are met, as a means to achieve the desired regulatory aims and less reliance on prescriptive rules.
2. The Office for Nuclear Regulation - Civil Nuclear Security (ONR CNS), currently issues guidance to industry - 'Technical Requirements Document' (TRD) which sets minimum standards for the physical protection of civil licensed nuclear sites, other nuclear premises and nuclear material in transit. The TRD was first issued in support of the Nuclear Industries Security Regulations 2003 (NISR) and is updated periodically.
3. The TRD has been revised a number of times since its first publication in 2003. It sets out minimum standards that reflect internationally agreed recommendations on the physical protection of nuclear material published by the International Atomic Energy Agency (IAEA). The standards also reflect the UK's obligations under the CPPNM and its commitments under the Nuclear Suppliers Group Guidelines and Plutonium Management Guidelines.

### Rationale for Intervention

---

4. It is proposed that the ONR should move to more outcome-based regulation - supported by an appropriate Guidance document - to help to facilitate sites thinking around security, the risks and mitigations. The National Objectives, Requirements and Model Standards (NORMS) document will therefore replace the current TRD guidelines.
5. The NORMS document will provide a more focused basis in setting the physical protection requirements for nuclear material and other radioactive material, achieved by identifying specific security requirements for protection against theft and sabotage.
6. The NORMS document takes into account the Government's policy on regulation, which includes where possible moving away from prescription to outcomes-based, goal setting approach focusing on performance measurement.

### Policy Objectives

---

7. The key policy objective is to embed a positive and professional security culture across the civil nuclear industry and where appropriate, a more robust performance-based approach with key security outcomes being clearly identified. The NORMS document will help the civil nuclear industry achieve their security outcomes by taking into account the need for a more robust, consequence driven risk management approach when planning their security arrangements.
8. Moving to outcome-based regulation will facilitate sites to thinking expansively around security, the risks and mitigations. It will also bring the industry into line with the approach that has been adopted for nuclear safety for a number of years, and reflects moves that are being made on security in other regulated industries.

## Description of Options Considered

---

9. Two options have been considered. These are:

- (i) Do nothing and rely on the existing prescriptive approach to regulation (as set out in the 'Technical Requirements Document' (TRD), which would continue to be updated periodically to include incremental improvements).
- (ii) Move to an outcome focused regulatory regime (by issuing a new set of outcome-focused guidelines, to be known as the "National Objectives, Requirements and Model Standards (NORMS)" **(preferred option)**)

10. Current regulations (NISRS 2003) are still valid and in use. As such, a decision was taken to update and change industry guidance on how the Regulations should be complied with rather than make any changes to the NISRS.

### **Option 1: Do nothing and rely on existing prescriptive guidelines**

11. This option does not take into account Government's policy on regulation, which includes where possible moving away from prescription to a goal setting approach.

### **Option 2: Issue a new set of guidelines to be known as the "National Objectives, Requirements and Model Standards (NORMS)"**

- 12. NORMS will be introduced in a stepwise fashion over a number of versions of NORMS. Industry are supportive of this change as it allows the operator more flexibility in implementing solutions.
- 13. Industry were fully involved throughout the development and drafting of the new guidance to ensure that effective and proportionate changes could be introduced without unnecessarily increasing the regulatory burden on business.

### **Key groups affected**

---

- 14. The key groups that will be affected by the publication of the NORMS document are businesses operating in the nuclear industry. However, the regulator will also need to adjust to the new approach and the culture change this brings.
- 15. There are currently 31 licensed sites in Great Britain that would be subject to implementing the changes proposed in the NORMS document. The sites are operated by 10 separate operating companies. There are also 22 approved transport carriers but it is judged that there will be no material impact on transporters as the changes in the NORMS document are very minor.
- 16. The ONR consulted industry over a period of several months. They had the opportunity to comment on full drafts of the document and during one-to-one discussions to ensure that they are fully aware of the changes being made. Industry are supportive of this change as it allows operators more flexibility in implementing solutions. The involvement of industry in the preparation of the new guidance helped to ensure that the defined outcomes can be met in a proportionate manner.

### **Monetised and non-monetised costs and benefits**

---

17. Table 1 below sets out the estimated costs to the nuclear industry that are associated with introducing the NORMS guidance i.e. policy option 2.

18. The quantified costs do not include estimates of the costs of security measures that will be implemented by operators once the new guidance comes in to force. This is because it is expected that these costs would have been incurred under the TRD approach either due to the need to make incremental security enhancements under that approach or to periodically renew/upgrade measures that have been in place for a significant period of time. This Impact Assessment therefore seeks to capture only the impacts of the change in regulatory guidance approach, i.e. from more relatively proscriptive towards more flexibility regarding solutions, not the incremental/periodic improvements that would have been required whichever regulatory regime was in place.
19. There is however the potential for increased costs of implementing security measures if the NORMS guidance is interpreted as being more stringent in defining the necessary security outcomes. This is not expected to be a direct result of the change in guidance and no evidence was provided by industry or the regulator to suggest that particular costs would arise in relation to security measures in order to comply with the new approach.
20. Similarly, while there is potential for the nuclear industry to realise cost savings due to the increased flexibility of the NORMS guidance it has not been possible to quantify these savings due to the uncertainty around the type of measures that operators will choose to implement.

**Table 1: Estimated costs of introducing NORMS Guidance Document, 2012 Prices**

		<b>Cost per annum</b>	<b>Net Present Value (2012)</b>
<b>ONR Training Workshop for Industry</b>	Low	£30k	£59k
	Central	£35k	£69k
	High	£40k	£79k
<b>Industry engagement and familiarisation</b>	Low	£100k	£100k
	Central	£150k	£150k
	High	£200k	£200k
<b>ONR staff costs for drafting NORMS document</b>	Central	£392K	£392K
<b>Increase in security staff a Category 1 nuclear facilities</b>	Low	£100k	£1,421k
	Central	£150k	£2,131k
	High	£200k	£2,842k
<b>Increase in security staff at nuclear generating facilities</b>	Central	£450k	£6,394k
<b>TOTAL</b>	<b>Low</b>	<b>£1.1m</b>	<b>£8.4m</b>
	<b>Central</b>	<b>£1.2m</b>	<b>£9.1m</b>

	<b>High</b>	<b>£1.3m</b>	<b>£9.9m</b>
--	-------------	--------------	--------------

**Table 2: Net Cost/Benefit of Policy Options, Central NPV Estimates, 2012 Prices**

	NPV of Costs of Policy Options	
	Policy option 1 Do Nothing	Policy Option 2 Introduce NORMS Guidance
ONR Training Workshop for Industry	zero	(£69k)
Industry engagement and familiarisation	zero	(£150k)
ONR staff costs for drafting NORMS document	zero	(£392k)
Increase in security staff a Category 1 nuclear facilities	zero	(£2,131k)
Increase in security staff at nuclear generating facilities	zero	(£6,394k)
<b>Net Cost / Benefit</b>	zero	<b>(£9.1m)</b>

### One-In-One-Out (OIOO) Rule

21. We consider that the introduction of the NORMS guidance is out-of-scope of the One-In One-Out (OIOO) rule under exemption 3 of the OIOO methodology<sup>1</sup>, on the grounds that the UK, as a signatory to the amended Convention on the Physical Protection of Nuclear Material (CPPNM), has in place a regulatory regime based on legislation to ensure the protection of nuclear material and nuclear facilities.
22. The NORMS document will be a straight replacement for the TRD and it will continue to allow companies/organisations in the civil nuclear industry to propose commensurate security measures to the ONR to meet the security objectives, taking into account the potential for cost reductions as detailed above and thus to potentially save money. These security measures will be fully compliant with the good practice set out in the authoritative IAEA guidance on civil nuclear security, INFCIRC225/Rev5.
23. The IAEA INFCIRC/225/Rev5 document was published in 2011 and sets out guidelines to achieve physical protection objectives via 12 'Fundamental Principles'. The document sets out responsibilities for both the State and the "competent authority" (the competent authority being a government organisation or institution that has been designated by a state to carry out one or more nuclear security functions: in the present case the regulator) and how to develop or enhance, implement and maintain a physical protection regime for

<sup>1</sup> HM Government, One-In-One-Out (OIOO) Methodology, July 2011.

<http://www.bis.gov.uk/assets/biscore/better-regulation/docs/o/11-671-one-in-one-out-methodology>

nuclear material and nuclear facilities. The document says that *“The State’s physical protection regime should be reviewed and updated regularly to reflect changes in threat and advances made in physical protection approaches, systems, and technology, and also the introduction of new types of nuclear material and facilities”*, in line with the principle of continuous improvement.

24. 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.

#### **Review**

25. The NORMS document will be subject to regular review to ensure that the system is working. These reviews will require industry to propose plans to meet security objectives for existing sites, and align with the security outcomes that industry must achieve for new build activities. The first review is expected to take place within the first 12 months of NORMS being issued. Each NORMS review will provide an opportunity to assess how the new regulatory approach is working, including the benefits of outcome-based regulation, and inform decisions on the speed and degree of shift towards the new approach.