



Department for
Business, Energy
& Industrial Strategy

The Draft Nuclear Safeguards Fees Regulations 20XX: Consultation Stage Impact Assessment



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Any enquiries regarding this publication should be sent to us at:
enquiries@beis.gov.uk

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Background

1. The UK exited the European Union (EU) and the Euratom¹ Treaty on 31 January 2020 and entered a transition period. The transition period ends at 11pm on 31 December 2020. From 11pm on 31 December 2020, the UK will operate a UK State System of Accounting for and Control of Nuclear Material (UK SSAC).
2. Since 2017, the Office for Nuclear Regulation (ONR) has been developing a UK SSAC to meet the UK's new international safeguards obligations. This will be implemented from 11pm on 31 December 2020 when the ONR will become the UK domestic safeguards regulator (referred to below as the new domestic safeguards regime). The ONR's new regime will be equivalent in effectiveness and coverage to that of Euratom. The UK has new agreements in place with the International Atomic Energy Agency (IAEA), who provide international oversight, including independent inspections, to enable it to draw conclusions about non-diversion of the nuclear material from peaceful uses.
3. The Nuclear Safeguards (EU Exit) Regulations 2019 (NSR19)² require operators³ to report information on specified nuclear material as defined in UK legislation⁴ to the ONR, who report that information to the IAEA to meet the UK's safeguards obligations. As the safeguards regulator, the ONR will hold dutyholders to account using a range of inspections and assessments to regulate compliance against UK requirements. Dutyholders include operators of qualifying nuclear facilities, such as large nuclear power generation companies, and operators of qualifying nuclear facilities with limited operation who use very small quantities of the nuclear material. Safeguards dutyholders also include businesses involved in R&D activities and those manufacturing, exporting and importing equipment for nuclear purposes.
4. The new domestic safeguards regime will start operating from 11pm on 31 December 2020 and will be funded by government until the end of March 2022, as industry adapts to this change.
5. From 1 April 2022 the UK Government plan to introduce a cost recovery scheme for nuclear safeguards regulation and is now seeking views on the detail of this proposed approach.
6. This document outlines an assessment of the likely economic impacts of cost recovery being introduced by the draft Nuclear Safeguards Fees Regulations 20XX. It does not focus on the impacts of a new domestic safeguards regime as that is already covered by the NSR19. Therefore, the focus of this document are the impacts which go beyond the NSR19.

¹ Euratom is the European Atomic Energy Community.

² <https://www.legislation.gov.uk/ukxi/2019/196/contents/made>

³ "Operator" means a person or undertaking setting up, operating, closing down or decommissioning a qualifying nuclear facility for the production, processing, storage, handling, disposal or other use of qualifying nuclear material.

⁴ See the Nuclear Safeguards Act 2018 (amending the Energy Act 2013), and The Nuclear Safeguards (Fissionable Material and Relevant International Agreements) (EU Exit) Regulations 2019. Particular isotopes of plutonium and uranium are defined, or material containing them in specified forms, plus uranium and thorium source material, or ores from which source materials can be derived.

7. Further background details can be found in the Consultation Document published alongside this Impact Assessment.

Problem under consideration and rationale for intervention

8. From 11pm on 31 December 2020, the ONR will operate the new domestic safeguards regime. The new domestic safeguards regime will receive direct government funding until the end of March 2022. However, a funding approach has not been agreed for the period after March 2022.
9. A plan for funding the new domestic safeguards regime from 1 April 2022 onwards needs to be finalised. Without funding, the UK would not be able to meet international safeguards obligations and undertake nuclear safeguards activities to fulfil its regulatory mission.
10. HM Treasury's Managing Public Money⁵ guidance suggests it can be appropriate to charge for services through fees rather than general taxation. Therefore, one funding approach beyond March 2022 would be to charge dutyholders for the cost of the new domestic safeguards regime. This would be consistent with regulations elsewhere. For example, the ONR already independently regulates nuclear safety and security activities. Fees regulations to recover costs for its safety⁶ and security⁷ activities were made in 2016 and 2005 respectively.
11. Another approach would be to continue to provide direct government funding beyond March 2022. Both approaches and an approach which combines the two are considered below.

⁵ <https://www.gov.uk/government/publications/managing-public-money>

⁶ <https://www.legislation.gov.uk/ukSI/2016/253/made>

⁷ <https://www.legislation.gov.uk/ukSI/2005/1654/contents/made>

Policy options

12. Three policy options have been considered.

Option 1 – continued full government funding

13. Under this option, from 11pm on 31 December 2020, the ONR would operate the new domestic safeguards regime. The costs of the ONR's nuclear safeguards activities would be directly paid for by the UK Government.

Option 2 – full cost recovery from dutyholders

14. Between 11pm on 31 December 2020 and 31 March 2022 this option is the same as option 1. The ONR would still operate the new domestic safeguards regime and the costs would be directly paid for by the UK Government.

15. From 1 April 2022, under option 2, dutyholders would then pay fees to cover the full costs of the ONR's nuclear safeguards activities. The extent of the fees paid by dutyholders would depend on the nuclear safeguards activities undertaken and the resource and effort by the ONR associated with regulating each dutyholder.

Option 3 – cost recovery with exemption for Small Holders of Nuclear Material

16. Under option 3, the ONR will also still operate the new domestic safeguards regime. This option is the same as option 2, except no fees would be paid by Small Holders of Nuclear Material (SHNM). Small holders of nuclear material are those dutyholders subject to the NSR19, whom the ONR has agreed should be subject to the reduced reporting regime provided for in Regulation 31 of those regulations. This category also includes those who are not subject to those regulations, but who must still provide information to the ONR in respect of UK obligations under its Additional Protocol safeguards agreement with the IAEA.

17. Under option 3, SHNM would be exempt from paying fees to cover the costs of the ONR's nuclear safeguards activities. The ONR would still recover costs from all other dutyholders. However, the proportion of costs associated with regulating SHNM would not be recovered. The remaining costs would be paid directly by the UK Government.

Impacts of each policy option

18. The impacts of each policy option are outlined below in terms of costs and benefits. Impacts are monetised where possible, between 2022/23 and 2031/32. This covers the 10 year period after 1 April 2022. A qualitative description of impacts is included where it was not possible to monetise that impact.
19. The impacts have been presented from the point of view of different stakeholders. Impacts are presented from the point of view of dutyholders and the UK Government. The impacts are then presented from the point of view of society as a whole (i.e. all UK stakeholders).
20. For options 2 and 3, the impacts have been compared against continued full government funding (option 1).

Impacts of Option 1 – continued full government funding

Costs to dutyholders

21. Under continued full government funding there will continue to be costs to dutyholders associated with requirements under the new domestic safeguards regime. Dutyholders will need to employ staff to do accountancy and reporting against the safeguards obligations, just as they already do with Euratom as the regulator. Under the new domestic safeguards regime they will also need to produce accountancy and control plans. The impact assessment for the NSR19 monetised these costs.⁸
22. These costs to dutyholders would be unaffected by the draft Nuclear Safeguards Fees Regulations 20XX. Dutyholders would have to pay these costs with or without the draft Nuclear Safeguards Fees Regulations 20XX.

Costs to UK Government

23. Under continued full government funding there will also be direct costs to the UK Government. As outlined above, the UK Government would directly pay for the costs of the ONR's nuclear safeguards activities.
24. To estimate the cost of new domestic safeguards regime BEIS have taken cost estimates from the ONR. This includes estimates of the amount of resource by the ONR to undertake nuclear safeguards activities⁹ as well as broader costs such as training, IT and legal costs.
25. The ONR cost estimates have been uplifted for inflation where appropriate.¹⁰ The Green Book¹¹ suggest appraisers tend to be too optimistic about costs.

⁸ [Nuclear Safeguards Regulations 2019 Impact Assessment](#)

⁹ The resource effort needed is estimated to be 7,242 person days worked per year, at a cost of £980 per person day (in 2020/21 prices). The £980 figure is the current day rate estimate based on the current financial year.

¹⁰ The cost estimates have been uplifted for inflation using values from the Office for Budgetary Responsibility. Values for 2018 -2021 come from the Economic and Fiscal Outlook March 2018. Values for 2022 onwards come from the Fiscal Sustainability Report 2017.

¹¹ <https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-government>

An optimism bias assumption has been applied, which increases the estimated costs by 20%, to account for this. This gives an estimated cost of £123m over the period between 2022/23 and 2031/32.

26. The ONR will carry out a range of safeguards activities which come under the categories of inspection and assessment¹², accountancy¹³, and management¹⁴. An estimate of the resource needed for each category has been used to estimate the cost for each category. Those figures are presented in the Table 1 below.

27. There is significant uncertainty in the figures. As the ONR will only start operating the UK SSAC and become the UK regulator for nuclear safeguards from 11pm on 31 December 2020, these figures represent the current best estimate. Actual activities may change based upon regulatory intelligence only available once the ONR becomes the regulator. International obligations may also change in future. The estimates are based on the ONR's current understanding of the UK nuclear landscape. They take account of new facilities and plant build dates, expected decommissioning and defueling activities, and the current advanced nuclear technology pipeline. However, beyond the first year of operating the safeguards regime, there are uncertainties around the level of enforcement action that may be required due to, for example, licensees changing their activities or levels of non-compliance. If significantly more (or less) nuclear safeguards activities need to be carried out, the actual costs will be significantly more (or less).

Table 1: Estimated cost of domestic safeguards regime, 2022/23 to 2031/32

Activity	Estimated cost (£m, nominal)										Total
	2022 /23	2023 /24	2024 /25	2025 /26	2026 /27	2027 /28	2028 /29	2029 /30	2030 /31	2031 /32	
Inspection and Assessment	5.3	5.4	5.6	5.7	5.9	6.0	6.2	6.4	6.6	6.8	60
Accountancy	4.4	4.5	4.6	4.7	4.9	5.0	5.1	5.3	5.5	5.7	50
Management	1.2	1.2	1.3	1.3	1.3	1.4	1.4	1.4	1.5	1.5	14
All activity	11	11	11	12	12	12	13	13	14	14	123

Impacts to society

28. The new domestic safeguards regime will allow the UK to meet its international safeguards obligations and will allow the ONR to provide efficient and effective

¹² This involves ONR site and system inspections, Accountancy and Control Plan (ACP) assessments, and facilitation of IAEA inspections.

¹³ This involves administration, reviewing and assessing operators' reports or declarations sent to the ONR, follow-up and resolution of queries, translating operator reports and declarations, producing other reports to send to the IAEA, and NCA related reporting.

¹⁴ This involves management of the ONR's overall safeguards purpose and functions; input from the Delivery Lead, Professional Lead and Programme Manager; international regulatory activities and cooperation; domestic oversight.

regulation of nuclear safeguards. This will minimise the risk of nuclear material being diverted from peaceful uses. It will also ensure dutyholders can continue to do business in the UK. These benefits are likely to be considerable. However, a lack of available data means they have not been monetised here.

Impacts of Option 2 – full cost recovery from dutyholders

Costs to dutyholders

29. Under option 2, dutyholders would need to pay fees to cover the costs of the ONR’s safeguards activities. These costs will be on top of the costs needed to support the safeguards activities in option 1. The additional costs to dutyholders are estimated to be £123m, over the period between 2022/23 and 2031/32, as outlined in Table 1 above.
30. The costs to each dutyholder will depend on the nuclear safeguards activities undertaken and the resource deployed by the ONR associated with regulating that dutyholder. The ONR have estimated the proportion of resources needed to support each dutyholder. Those estimates have been multiplied by the estimated total cost of the domestic safeguards regime, between 2022/23 and 2031/32 (£123m), to estimate the costs to each dutyholder. Those figures are presented in Table 2 below.
31. As with the figures in Table 1, the figures in Table 2 have significant uncertainty. They are based on current estimates of nuclear safeguards activities which will need to be undertaken. However, if significantly more (or less) nuclear safeguards activities need to be carried out for a particular dutyholder, the actual costs will be significantly more (or less).

Table 2: cost of domestic safeguards regime by dutyholder

Dutyholder	Estimated cost between 2022/23 and 2031/32 (£m, nominal)
Government ownership	
Sellafield	59
Dounreay	9
Magnox	6
Total	74
Non-UK Government ownership	
Capenhurst	26
EDF	9
Springfields	9
SHNM	6
Total	49
Overall Total	123

32. Sellafield, Dounreay and Magnox, as wholly-owned subsidiaries of the Nuclear Decommissioning Authority, are owned by the UK Government. Therefore, £74m of fees are estimated to be paid by UK Government owned dutyholders and £49m of fees are estimated to be paid by non-UK Government owned dutyholders (Capenhurst, EDF, Springfields and SHNM).

33. As well as the costs dutyholders would have to pay in fees, dutyholders may also have an increase in administrative costs associated with paying those fees. BEIS has not estimated these costs. However, the increase in administrative costs is expected to be low. The ONR already recovers costs for its safety and security activities. Operators of large nuclear facilities are already regulated by the ONR for safety and security regulations. As the ONR recovers costs from these companies for safety and security activities, it is assumed such operators already have a system in place that could be used for safeguards regulation cost recovery at minimal cost.

34. The increase in administrative cost is likely to be disproportionately larger for SHNM. Not all SHNM are small enterprises. However, a significant proportion of SHNM are small or medium enterprises. Therefore, an additional administrative cost burden coming from cost recovery is expected to have a disproportionate burden on SHNM.

Benefits to UK Government

35. Under option 2, the UK Government would receive the fees paid by dutyholders (£123m). However, £74m of these fees are estimated to be paid by UK Government owned dutyholders. Therefore, the additional fees going to the UK Government are estimated to be £49m

Impacts to society

36. There is estimated to be a £49m transfer from non-UK Government owned dutyholders to the UK Government. The £49m cost to non-UK Government owned dutyholders is offset by a £49m increase in revenue to the UK Government. Given this is a transfer, it has no net impact on society.

37. The increase in administrative costs to dutyholders is a cost to society. However, as mentioned above, these costs are expected to be very low.

38. The implementation of a cost recovery scheme for safeguards regulation may have some other costs to society. This could include:

- Delays in payments of invoices. This could affect the ONR's cashflow, potentially causing significant funding issues which could impact the delivery of the ONR's regulatory objectives. It could affect the UK's reputation and image internationally, which could compromise the UK's ability to efficiently meet international obligations.
- A reduction in compliance with safeguards regulations. For example, a new dutyholder might be less likely to highlight themselves as needing monitoring by the ONR if they think that monitoring would lead to additional fees. A drop in compliance with safeguards regulation could, in turn, increase the risk of nuclear material being diverted from peaceful uses.

39. These other costs to society would be mitigated by:

- **Using an existing charging model and existing payment dispute and debt recovery processes.** This will reduce the risk of a delay in payments of invoices. The ONR already recovers the costs of its activities under nuclear safety and security regulations. The safeguards cost recovery scheme would be aligned with the ONR's

existing cost recovery schemes. Similarly, the ONR has an established disputes procedure to support both the ONR and industry. A clear process is set out on how to raise disputes relating to the charges applied by the ONR and the route for escalation, where appropriate. There is also an established debt recovery process for late/non-payment of invoices.

- **Using a charging model which incentivises dutyholders to comply with regulations.** Under the ONR's charging model, cost would be classified into one or a combination of charging categories (Direct Effort¹⁵, Indirect Effort¹⁶, Common Good¹⁷, and Overheads¹⁸). The more direct effort a dutyholder attracts, the greater apportionment of costs that are assigned.
 - i. For dutyholders that the ONR has an established safety and security relationship with, this may incentivise them to engage constructively with the ONR on the nuclear safeguards regulations. Otherwise, a lack of constructive engagement from the dutyholder is likely to lead to more Direct Effort by the ONR and more cost for the dutyholder.
 - ii. For other dutyholders there may be a different effect. For example, the ONR are expected to use workshops to help explain to SHNM what they need to do to comply with the nuclear safeguards regulations. If SHNM are charged for attending these workshops, they may be less likely to attend. That would lead to less awareness by SHNM and a reduction in compliance with the nuclear safeguards regulations.

Impacts of Option 3 – cost recovery with exemption for SHNM

Costs to dutyholders

40. Under option 3, dutyholders would pay fees to cover the costs of the ONR's safeguards activities, except where those costs relate to SHNM. The ONR estimated costs associated with SHNM are 5% of the nuclear safeguards regime's costs. As shown in table 2, the estimated cost relating to SHNM is £5.7m over the period between 2022/23 and 2031/32. Therefore, the estimated cost to dutyholders is £117m (£5.7m less than under option 2).

¹⁵ Direct Effort: the amount of time spent, typically by front line staff, that involves direct engagement with the operator or for the operator. This includes inspections, enforcements, assessment of cases, and such like. This is the driver for all other costs to be apportioned. Simplistically, the more direct effort an operator attracts, the bigger apportionment of overheads that is assigned.

¹⁶ Indirect Effort: Work done by staff that does not necessarily require face to face interaction directly with the operator but facilitates directly attributable work, such as support staff within specific programmes, assisting front line activities. This is *apportioned* on the same percentage split of the direct effort, charged across all operators.

¹⁷ Common Good: work that is not directly attributable to a single or specific operator but is for the common good of the ONR's purposes and will benefit the industry as a whole. This work is necessary for the ONR to carry out as part of being an effective regulator and affect improvements to the UK and International regulatory system. Examples of this type of work are international representation and meetings, and contribution to policy and legislation changes. This is *apportioned* on the same percentage split of the direct effort, charged across all operators.

¹⁸ Overheads: the ONR business costs that whilst not directly attributable to a specific operator, are essential for the ONR to function and keep operating. Such examples are support function costs, estates costs, shared services costs etc. This is *apportioned* on the same percentage split of the direct effort, charged across all operators.

41. Under option 3, there is also likely to be an increase in administrative costs. The increase in administrative costs is expected to be very low. Operators of large nuclear facilities are likely to have systems in place that could be used for safeguards regulation cost recovery at minimal cost. SHNM would not need to administer any fees under this option. Therefore, the overall increase in administrative cost is likely to be lower than under option 2.

Benefits to UK Government

42. Under option 3, the UK Government would receive the fees paid by dutyholders (£117m). However, £74m of these fees are estimated to be paid by UK Government owned dutyholders. Therefore, the additional fees going to the UK Government are estimated to be £44m.

Impacts to society

43. There is estimated to be a £44m transfer from non-UK Government owned dutyholders to the UK Government. The £44m cost to non-UK Government owned dutyholders is offset by a £44m increase in revenue to the UK Government. Given this is a transfer, it has no net impact on society.
44. The increase in administrative costs to dutyholders is a cost to society. However, as mentioned above, these costs are expected to be very low. The administrative costs are also expected to be lower than under option 2.
45. Under option 3, there is also a risk in delays in payments of invoices and a reduction in compliance with safeguards regulation. For dutyholders the ONR has an established safety and security relationship with, these risks are expected to be mitigated in the same way as described in option 2.
46. Under option 3, SHNM are exempt from paying fees. The risk described in option 2, where SHNM are less likely to attend ONR workshops, does not apply.

Conclusion

47. BEIS thinks it is appropriate for dutyholders to pay for the cost of the domestic nuclear safeguards regime. Therefore, policy options 2 and 3 are preferred to continued full government funding (policy option 1).
48. Policy options 2 and 3 both introduce a transfer from non-UK Government dutyholders to the UK Government. However, neither policy option has impacts to society as a whole which BEIS has been able to monetise. Therefore, there is not a clear argument for either policy option on the basis of the impacts which have been monetised.
49. This impact assessment has also outlined some non-monetised impacts. BEIS' current view is that SHNM are likely to be disproportionately affected by cost recovery. Not all SHNM are small enterprises. However, a significant proportion of SHNM are small or medium enterprises. Therefore, an additional administrative cost burden coming from cost recovery is expected to have a disproportionate burden on SHNM.
50. BEIS is also concerned that cost recovery may disincentivise SHNM from seeking early engagement with the regulator, potentially increasing regulatory input and the costs levied later, owing to accidental non-compliance. This would have an impact both on the relevant businesses and the UK's international reputation.
51. Therefore, policy option 3 (cost recovery with an exemption for SHNM) is BEIS' preferred policy option.