Title: Level of nuclear third party liability for intermediate nuclear licensed sites IA No: DECC0184 Lead department or agency: DECC Other departments or agencies: HMT, ONR	Impact Assessment (IA)
	Date: 24th March 2015 updated May 2016
	Stage: Consultation
	Source of intervention: International
	Type of measure: Secondary legislation
	Contact for enquiries: Kate Ward **Tel:** 030 0068 5645

Summary: Intervention and Options

RPC: GREEN

Cost of Preferred (or more likely) Option				
Total Net Present Value	**Business Net Present Value**	**Net cost to business per year** (EANCB in 2014 prices)	**In scope of One-In, Three-Out?**	**Measure qualifies as**
£0m	£0m	£0m	No	Zero Net Cost

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

The UK is a Party to the Paris and Brussels Conventions which are international treaties setting out a framework to deal with compensation following a nuclear incident. The UK is implementing changes to the Conventions which will increase the amount of liability and the type of damage for which the nuclear operator is liable and effectively transfer to them liability which currently rests with HMG. Nuclear operators' third party liability is capped in amount and scope but as a consequence they are required by law to have insurance cover up to level of the liability. An IA was produced in 2012 (updated 2015) to show the impact of the upgraded regime including the fact that operator liability would increase from the current £140m to €1200m (approx. £1 billion) per incident.

Following responses to a public consultation HMG considers that imposing this higher liability on sites that are not operational power plants, and which generally represent a significantly lower risk of causing a large scale impact, may be disproportionate. Therefore, further intervention is necessary to prevent an undue burden being placed on these so-called "intermediate" sites.

What are the policy objectives and the intended effects?

1) To implement policy that complies with the Conventions and remains consistent with the aims of the special regime.
2) To ensure that implementation of the revised nuclear third party liability regime does not disproportionately add to operators' business costs or reduce their competitiveness.
3) To implement policy that is proportionate to the risks.

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

Option 1: set liability and insurance requirement at the same level as power plants at €1200m starting at €700m and rising annually by €100m
Option 2: set liability and insurance requirement at €700m (approx. £600m) and not to increase beyond this level
Option 3: set liability and insurance requirement at €160m (approx. £140m) **(preferred option and current level)**
Option 4: set liability and insurance requirement for at €70m (approx. £60m)
Option 5: set liability and insurance requirement at a level between €70m (approx. £60m) and €700m

Will the policy be reviewed? It will not be reviewed. **If applicable, set review date:** Month / Year

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:** **NA**	**Non-traded:** **NA**	

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: Andrea Date: 8.6.16

Summary: Analysis & Evidence Policy Option 3

Description: Maintain current insurance and liability levels at €160m (approx. £140m) for intermediate sites

FULL ECONOMIC ASSESSMENT

Price Base Year 2013	PV Base Year 2014	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low: £0m	High: £0m	Best Estimate: £0m

COSTS (£m)	Total Transition (Constant Price)	Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	Optional		Optional	£0
High	Optional		Optional	£0.05m
Best Estimate				£0

Description and scale of key monetised costs by 'main affected groups'

Nuclear operators, including those that are not operational power plants i.e intermediate sites, are currently liable for up to £140m of third party damages in the case of a nuclear incident and are required to hold insurance for this level of liability. In 2012 this liability and insurance requirement for 'intermediate sites' (defined below) was planned to rise to €1200m and the 2012 Impact Assessment was calculated on this basis. However the public consulation responses suggested that such liability limit for these intermediate sites was disproportionate to the risk/hazard that they represented.
At present three businesses are expected to be affected by the policy of maintaining their liability and insurance level at around £140m (note it will be set at €160m as it must be set in euros) instead of raising it to the €1200m level: Urenco Ltd, Springfields Fuels Ltd and GE Healthcare Ltd (two sites). By holding the insurance requirements at their current levels the costs, in the form of changes in insurance premia, of the preferred policy (option 3) are estimated to be around **£0m**.

Other key non-monetised costs by 'main affected groups'

Non-monetised costs include any extra administrative costs passed onto insurance premia of having to hold insurance in euros rather than pounds. This is likely to be very minimal.
Implementing the changes to the Conventions will widen the types of damage for which compensation may be claimed for compared to today. Therefore, it is possible that insurance premia may increase to reflect this wider scope of damages covered even when the total liability covered is held constant. There are currently no data available to quantify this potential impact so it is non-monetised.

BENEFITS (£m)	Total Transition (Constant Price)	Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	Optional		Optional	£0
High	Optional		Optional	£0.05m
Best Estimate				£0

Description and scale of key monetised benefits by 'main affected groups'

The key monetised benefits are reductions in contingent liabilites held by government which will in all cases are estimated as equal and opposite in value to the changes in costs faced by industry. In our best estimate this is **£0m**.
Exchange rate sensitivity analysis shows the potential for higher or lower changes in government liability. At a societal level there is no expected impact however as government liability and business insurance requirement changes are offsetting. This is explained in more detail in Costs and Benefits section in the Evidence Base part of the IA.

Other key non-monetised benefits by 'main affected groups'

The widening of the scope of liability and insurance cover for business, which may lead to a non-monetised cost to business will have an equivalent and offsetting benefit to government in terms of reduced liability held by government. No evidential basis to reduce current level of liability.

Key assumptions/sensitivities/risks **Discount rate(%)** 3.50

Likelihood of incident at intermediate sites assumed to be low

BUSINESS ASSESSMENT (Option 3)

Direct impact on business (Equivalent Annual) £m:			In scope of OI3O?	Measure qualifies as
Costs: 0.0	Benefits: 0.0	Net: 0.0	No	N/A

Evidence Base (for summary sheets)

Note: this Impact Assessment has been updated in May 2016, in particular the price and present value base years, to reflect more up to date information. The policy basis of this Impact Assessment has not changed.

Problem under consideration

1. The UK is a Party to the Paris Convention on nuclear third party liability and the Brussels Supplementary Convention (The "Conventions"). These Conventions provide for the payment of compensation for damage following a nuclear incident. The UK implements the Conventions through the Nuclear Installations Act 1965 (the Act). The Conventions were updated in 2004 and the Act has been amended[1] to implement the changes to the regime. As part of the third party liability regime the operators of nuclear licensed sites are liable for compensation claims for third party damage and to have mandatory insurance to cover their liabilities. The current level of both liability and insurance requirements is £140m for all sites except those of very low risk of causing significant damage.[2] The Government conducted a public consultation in 2011[3] on its implementation proposals. Under those proposals once the Convention changes come into force the liability limits would increase from £140m to €1200m (approx. £1bn) and apply to all but the lowest risk nuclear licensed sites. Those sites defined as low risk (not the subject of this Impact Assessment) will see their financial liability increase from £10m to €70m per incident. The revised regime is expected to come into force in 2017.

2. In response to the public consultation a number of operators stated that, whilst their sites are currently treated as standard sites with a liability limit of £140 million (because they do not present the lowest level of risk of causing a high impact which would qualify them as very low-risk sites), the sites they operate do not present a level of risk that warrants a €1200 million liability limit[4].

3. These operators argued that Government should consider setting an intermediate lower level of liability and insurance for such "intermediate sites". The issue is primarily of concern because the cost of operators' liability insurance is expected to rise substantially because of the changes to the legislation unless there is further intervention.

4. Once the revised regime comes into force the types of damages that may be compensable increases by a further four categories (see figure 2). At this stage, it is not possible to know whether this could lead to more claims but this may be another reason to retain the £140m (€160m) level.

Rationale for intervention

5. The Paris Convention sets a minimum liability and insurance limit of €700m for standard sites. However, the Convention also provides the scope to set a lower limit (minimum €70m under the revised regime) in the case of sites where an accident is unlikely to give rise to significant levels of damage, and the discretion to determine the classification of such sites. In implementing the revised Paris Convention, the Government has increased the liability and insurance limit for the current very low risk sites from £10m to €70m (the minimum permitted under the revised regime).

6. At least four sites (belonging to three firms) of the 30 civil nuclear licensed sites in the UK appear suitable to be considered as intermediate sites benefitting from a lower liability level. The installations at these sites do not achieve a critical nuclear fission reaction, nor do they handle or store the large radioactive (including fission product) inventories associated with power reactors, and spent fuel reprocessing plants and their associated facilities. Therefore the hazards are lower. The principal risk at these intermediate sites tends to be chemical rather than nuclear and such non-nuclear risks are not covered by the Conventions in any event. We are consulting to invite

[1] By the Nuclear Installations (Liability for Damage) Order 2016 (SI 2016/562).

[2] In all options considered in this Impact Assessment, the minimum insurance level and maximum liability levels are set at the same level.

[3] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/42747/1184-ia-cons-paris-brussels-conv.pdf

[4] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/42757/4874-parisbrussels-government-response-to-consultation.pdf

views on this issue and how best to define intermediate sites. It is possible that responses may suggest that the definition should include sites that are no longer operating as nuclear power plants and are in the process of decommissioning at some point in their decommissioning life. We will take such responses into consideration and in the round and the outcome will be set out in the final impact assessment.

7. In the main IA from 2012[5], Government proposed to apply a €1200m[6] requirement to all standard sites including those that were not power plants but undertook activities such as the manufacture of fuel and uranium enrichment (the 'intermediate sites'). The intermediate site operators approached DECC, during the public consultation on the implementation of changes to the liability regime, to say that imposing a liability of €1200m was disproportionate to the hazards/risk associated with their sites.

8. Some respondents suggested that Government should create a category of so-called "intermediate sites". Responses from operators indicated that a €1200m liability level would be too high, suggesting *"…that the government exercise its discretion to establish appropriate levels of liability based on actual risk for lower risk nuclear sites in an amount of between €70m and €700m."*[7]

9. In light of the representations made by operators, Government considers the application of a liability and insurance requirement design for power generation sites to these 'intermediate sites' is disproportionate to the risks and hazards presented.

10. The current policy on Convention implementation would lead to a €1200m liability and insurance requirement to power generating and intermediate sites alike when the UK implements the updates to the Conventions. Therefore, it is necessary to intervene to prevent a disproportionate regime applying to these intermediate sites when the amendments to the Conventions are implemented.

11. DECC published a final Impact Assessment in March 2012 (updated December 2015)[4] as part of the Government response to the public consultation on the proposals for implementing the changes to the Conventions, which (under the preferred option) assumed that the liability limits for 'intermediates sites[8]' would increase to €1200m. However, in its response to the consultation, the Government committed to consider the options to set an intermediate level of liability for such sites. This Impact Assessment reflects the outcome of that consideration and will accompany a consultation of the proposal to introduce an 'intermediate sites' category of nuclear sites with correspondingly 'intermediate' levels of liability requirements.

Policy objective

12. The policy is intended to ensure that nuclear licensed sites in the UK, which do not engage in electricity generation (nor even have such facilities), i.e. "intermediate sites", are regulated proportionately to the risk they represent and for their financial liability under the revised regime to be set at an appropriate level.

13. In considering the question of the appropriate level of liability limit for intermediate sites Government's objectives are that implementation of the Convention for these sites:

    i) complies with the Conventions;

    ii) does not unnecessarily add to operators' business costs or reduce their competitiveness; and

    iii) is proportionate to the risks.

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5 http://webarchive.nationalarchives.gov.uk/20121217150421/http://decc.gov.uk/assets/decc/consultations/paris-brussels-convention-changes/4878-fina-impact-assessment--paris-brussels-convention.pdf. An updated IA was published alongside the implementing legislation in May 2016: http://www.legislation.gov.uk/uksi/2016/562/impacts

6 Initially €700m rising to €1200m over 5 years.

7 https://www.gov.uk/government/consultations/compensating-victims-of-nuclear-accidents

8 For example, fuel fabricators or similar nuclear operations, these would have a liability level lower than €1200 million set for power plants. Consultation responses suggested that applying the standard level of liability to all sites that were not defined as low risk by the Nuclear Installations (Prescribed Sites) Regulations 1983 was disproportionate to the potential level of damage in the event of an incident (source: footnote 2).

Description of options considered

14. Alternatives to regulation were not considered because the Conventions and UK legislation - the Nuclear Installations Act 1965 (under section 19)[9] - require operators to have insurance in place to cover their liabilities. Therefore, implementation of the Conventions can only be done through amendments to legislation.

15. In considering the options for setting lower limit for intermediate sites, the relevant operators were informally consulted and provided information, which helped to inform the consideration of options[10].

16. Five options were compared to the counterfactual in which the revised conventions are not implemented;

    Do nothing counterfactual: Current liability and insurance requirements are set at £140m (~€160m). The changes to these requirements required by the changes to these Conventions have not yet been legislated upon or implemented (expected January 2016); therefore maintaining these requirements (implicitly not implementing the changes to the Conventions in respect of these intermediate sites) is used as a counterfactual for this impact assessment. However, such non-implementation of the Conventions is not a viable policy option as it would not meet our legally binding international commitments. [11]

    The main impact assessment from 2012 on the proposals to implement the Convention changes included the impacts of increasing insurance requirement and liability levels for intermediate sites to €1200m. Therefore, whilst £140m is used as the counterfactual, any costs to business estimated cannot be considered additional to those calculated in the 2012 IA for any liability level that is lower than the €700m rising to €1200m that was assessed in 2012. Rather, costs to business will be reduced relative to the 2012 IA. The €700m rising to €1200m insurance requirement scenario for intermediate sites is not chosen as the counterfactual because these changes have yet to be legislated upon and implemented.

    Option 1:[12] The UK Government implements the requirements of the Conventions by making amendments to the 1965 Act and sets the same liability for standard risk sites. Intermediate site operators would be required to hold insurance for €700m (~£600m) worth of liability in 2016, increasing by €100m (~£85m) each year until 2021, at which point they would be holding insurance for a liability of €1200m (~£1bn). At this point, there would be no further increases in insurance levels and intermediate site operators would be required to hold insurance for €1200m (~£1bn) worth of liability into the future.

    Option 2: Set a constant liability and insurance requirement at €700m (~£600m) (the minimum the Conventions allow for standard sites);

    Option 3: Maintain the current level of financial liability and insurance requirement at €160m, approximately equal to the current level of £140m (**preferred option**);

    Option 4: Set a constant liability and insurance requirement at €70m (~£60m) (the minimum the Conventions allow for low risk sites);

    Option 5: Set a constant liability and insurance requirement at a level other than €160m (~£140m) somewhere between €70m (~£60m) and €700m (~£600m), (the minimum the Conventions allow for low risk and standard sites respectively).

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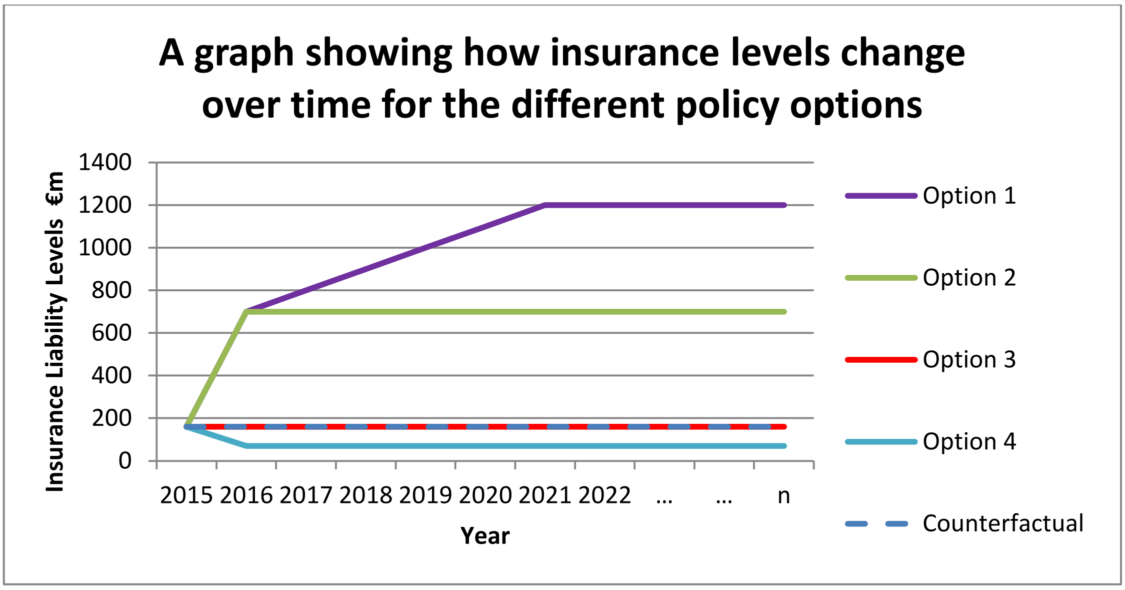
[9] http://www.legislation.gov.uk/ukpga/1965/57/section/19

[10] https://www.gov.uk/government/consultations/compensating-victims-of-nuclear-accidents

[11] Meeting these commitments under current policy would mean the liability and insurance requirements for intermediate sites would increase to €700m (£600m) in 2016 and continue rising by €100m each year until it reached €1200m (£1bn) by 2021.

[12] This would be the case upon implementation of the amendments to the conventions without further government intervention.

Figure 1: Insurance level options



17. Note that the counterfactual insurance liability level is the same as the expected value of option 3, but could be higher or lower in sterling terms depending on the evolution of the £/€ exchange rate. This is because the Conventions require that the new liability level be set in euros. The exchange rate is the one that applies at closing on the date of the first day of an incident, so the exchange rate will always reflect the latest position i.e. €160m in GBP (based on EURGBP=0.83, a long-term average over the past eight years[13]).

18. Option 5 would have a constant level from 2016 somewhere in between the green and light blue lines.

19. It is also worth noting that all of the options 1 to 5 include the implementation of an expanded types of damage required to be covered by insurance held as shown in Figure 2. This is in line with the requirements of the Conventions. Therefore, whilst the liability covered is the same in option 3 as in the counterfactual, the scope of the cover is expanded in option 3 compared to the counterfactual.

Figure 2: current and new liabilities under the Paris Convention

	Current regime	**Revised regime**
Categories of damage	Property damage Personal injury/death	Property damage Personal injury/death Economic loss arising from property damage or personal injury Costs of measures of reinstatement of impaired environment Loss of income deriving from a direct economic interest in any use or enjoyment of the environment Costs of preventive measures
Time limits	10 years	Personal injury/death - 30 years All other damages – 10 years

[13] An exchange rate of around 0.875 GBP to EUR would leave the liability and insurance requirement of the preferred option neutral in terms of the switch from a £140m threshold to one at 160EUR. We have assumed the exchange rate to be around 0.875 in the analysis as it is a close yet conservative approximation to a long-term historic average, that removes exchange rate volatility: over the past eight years since April 2008 – the time of the global financial crash – the GBPEUR exchange rate has averaged around 0.83 or within 5-6% of the rate required to leave the preferred option approximately neutral. *Source: Bank of England*

Geographical scope	Injury/damage in countries that are party to the Paris/Brussels Conventions	Paris /Brussels signatory states Non-nuclear states not party to the Conventions Vienna Convention parties who have ratified the Joint Protocol (if the UK has ratified it as well) Countries with reciprocal arrangements

20. Option 1 would represent the implementation of current policy and require intermediate sites to have the same insurance arrangements as power generating sites.

21. Option 2 would represent a departure from current policy but would still treat intermediate sites with an insurance and liability regime designed for power generating sites.

22. Option 3 keeps the insurance requirements for intermediate sites broadly in line with the practice in a number of other Paris Convention countries and other countries that already recognise certain types of facility - in particular enrichment plants - as lower risk, by treating them differently to power plants. As set out in Annex A, these countries give them lower financial liability and insurance. In addition, we believe this solution would be proportionate with the lower risks presented by intermediate sites compared to standard nuclear sites.

23. Option 4, a liability/insurance limit of €70 million (the minimum permitted) would represent a reduction from their current liability/insurance level of £140m and include intermediate sites with the current very low risk sites.

Societal impact: Costs and benefits of each option (including administrative burden)

24. When considering the costs and benefits of each option it should be noted that it is the impact on business that is presented below. The impact at the societal level is estimated at zero for each of the options. This is because changing the level of financial liability and the corresponding insurance cover does not change the underlying nature of the risk being insured, it only reallocates who pays for any contingent liabilities should they arise. Government is obligated to pay for any costs arising from an accident at these sites that exceeds their capped liability and so any changes in liability levels for business will represent an equal and opposite change in liability levels for government.

25. It should be noted that, in the unlikely event of an incident at an intermediate site, although the risk of claims for compensation exceeding €160m is judged to be very low it cannot be completely ruled out and therefore neither can the risk of the Government having to provide additional public funds for compensation in the preferred scenario. The value of this risk increases with lower liability levels for the private operators and decreases with increases in private sector liability.

26. The resource cost associated with Government holding such contingent liability (Government effectively holds some of this currently) is not quantified in Government Accounts. However, we can use estimates of nuclear industry insurance costs as a theoretically sound and appropriate proxy value for the equivalent costs to Government of holding this liability. This is approved by HMT and is consistent with the approach taken in the original Paris and Brussels Conventions IA[14], which was passed by the RPC.

27. In using this approach, it is noted that there may be some difference between the costs of the private insurance sector of holding this liability and of Government holding it. However, there is no proportionate way to estimate such potential differences and so they are not monetised.

28. There is a large global capital market which may be able to provide reinsurance facilities to allocate this risk. It is not clear whether this would be more or less efficient than when the contingent liability is allocated among UK taxpayers by HMT. This potentially provides a small non-monetised cost or benefit of options that do not maintain the current liabilities level.

[14] http://www.legislation.gov.uk/uksi/2016/562/impacts

29. The on-going cost of the liability regime for operators is the requirement to have insurance or other financial security to cover their nuclear third party liabilities. The amendments to the regime will require them to pay for an increased range of insurance cover.

30. There is a potential non-monetised cost with the increased liability level options, relating to the risk that some businesses might close down or operate with lower employment, wages and/or profits. This could happen if the higher levels of liability required increased costs to businesses by an amount that they could not afford. This is not monetised as the any reduction in profits and wages at these businesses would be expected to be offset by increases in other economic activity.

Business impact: Costs and benefits of each option (including administrative burden)

31. The intermediate site operators have not yet provided information on their future insurance costs under a €160m liability level for their installations. Whilst this is approximately equal to current liability limits, the increased scope and new heads of damages under the revised Paris regime will apply to intermediate site operators – see Figure 2 above for a summary of the changes. Therefore, it is probable that the insurance costs under the revised regime will be slightly higher than at present although evidence is not readily available to.

32. Note that the insurance costs paid currently, and the costs to businesses under the preferred option 3, are estimated to remain the same. This results in a zero net (monetised) cost to business of this policy i.e. £0 in costs. The Net Present Values of all options are set out in figures 4 & 5. These are presented in the standard way across 10 years and we show 25 years because the measures are enduring; so we also present over the longer term.

33. For the range of options presented, the expected range of impacts compared to the counterfactual is that the proposals will have an impact on business between savings of £4m and costs of £12m over 10 years (benefit of £9m to cost of £27m over 25 years) (2013 prices, 2014 PV base year) in net present value terms (figures 4 & 5)[15].

34. Since the new liability and insurance level is required to be held in euros rather than sterling, it is plausible that the sterling quotes obtained from firms may fluctuate according the EURGBP exchange rate. As a result, a sensitivity analysis was undertaken whereby unforeseen exchange rate fluctuations cause the cost of options to increase or decrease by 10% around our central estimate[16]. This shows that there could be a £0.05m cost (benefit) to companies if the pound were to weaken (strengthen) against the euro altering insurance quotes by 10% i.e. if the pound became weaker resulting in higher premiums (in sterling) needed to cover €160m liability.

Figure 4: Summary costs and benefits to business (positive figures indicate net benefits), discounted at the social discount rate (10 years)

	NPV benefits to business over 10 years		
	Low (-10%)	Central	High (+10%)
Option 1 - €700 -> €1200 liability	-£11.7m	-£10.1m	-£8.6m
Option 2 - €700m liability	-£8.6m	-£7.3m	-£6.1m
Option 3 - €160m liability - **preferred**	**-£0.5m**	**£0**	**£0.5m**
Option 4 - £70m liability	£3.9m	£4.1m	£4.2m
Option 5 - €70 - €1200m liability	-£11.7m	Unknown	£4.2m

15 These are estimated from insurance quotes that the companies have provided for cover at £140m (~€160m), €700m (~£600m) and €1200m (~£1bn) and quotes for a proxy site for €70m (~£60m).

16 Note this does not necessarily mean that exchange rates changed by +/-10% as some element of the change in quotes may be due to fixed costs. Without better evidence on exchange rate changes, an arbitrary 10% margin was taken either side of the central estimate.

Figure 5: Summary costs and benefits to business (positive figures indicate net benefits), discounted at the social discount rate (25 years)

	NPV benefits to business over 25 years		
	Low (-10%)	Central	High (+10%)
Option 1 - €700 -> €1200 liability	-£26.6m	-£23.2m	-£19.7m
Option 2 - €700m liability	-£18.1m	-£15.5m	-£12.8m
Option 3 - €160m liability - **preferred**	**-£1.1m**	**£0**	**£1.1m**
Option 4 - £70m liability	£8.3m	£8.6m	£8.8m
Option 5 - €70 - €1200m liability	-£26.6m	unknown	£8.8m

35. This shows that requiring a higher liability would result in significantly higher costs without a good justification for change in the case of intermediate nuclear sites. Although option 4 results in a benefit to business, there is no evidential basis in terms of reduced risk of accident or reduced magnitude of damages in the case of an accident to reduce the liability required to be held by business. In addition, operators provided information relating to £140m (~€160m) being more appropriate[17]. Furthermore, the additional savings to business from a €70m liability limit are likely to be an overestimate due to the proxy used to estimate insurance costs at this level.

36. If liability were set at €700m or even higher at the maximum of €1200m, the insurance premia could add significantly to business costs. Although claims risks are low, insurance cover does incur cost as insurance providers need to allocate capital. Increasing costs may undermine the competitiveness of these businesses and influence where future investment is targeted.

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

37. The impacts of the preferred option should be modest; the central option estimates £0 monetised costs on business. Due to lacking claims history available for these sites (no claims), it will not be possible for Government to be sure of the exact level of insurance to set. There is also no evidence that the level needs changing from the current level. Therefore, the analysis is conducted with the available evidence.

38. Quotes for insurance levels of €160m under the revised heads of damages and for levels of €70m for the intermediate sites are not available. They have not been provided by insurers to the site operators. In the absence of this information, the current insurance costs for £140m of cover under the current heads of damages and the insurance costs of other sites with a level of €70m of cover are taken. Insurers have not provided quotes for these scenarios. It would be disproportionate for insurers to calculate policy quotes purely for this assessment and we cannot require quotes for this insurance level from insurers in any case. The proxies used provide sufficient information to assess relative impacts of the different viable policy options.

Risks and assumptions

39. The main assumptions are:

- The likelihood of an incident at an intermediate site which leads to a release of radioactive material, which causes damage, is extremely low. This is due to nuclear reactors not being present on-site.
- Operators cite that the distinction between the level of risk associated with an enrichment facilities or fuel fabricators and reactor operators is an established concept in other European jurisdictions.
- Insurance limits specified by the different options are minimum, and not maximum, values that the nuclear sites might take out insurance for.
- “Industry” refers to the three operators, Urenco, Springfields Fuels Ltd and GE Healthcare Ltd, that operate intermediate sites.

[17] Operators argue that likely consequences of a nuclear incident originating at their plant was minimal due to not having a nuclear reactor. https://www.gov.uk/government/consultations/compensating-victims-of-nuclear-accidents

40. The main risks are:

- That following a nuclear incident at an intermediate site the costs of claims for damages are such that they exceed the amount of liability and insurance set and must be met from the public purse.
    - This would bring into question whether the level of the liability and insurance requirement for intermediate nuclear site operators.
    - It would not affect the numerical analysis of the policy options relative to the counterfactual

Direct costs and benefits to business calculations (following OI3O methodology)

41. The overarching policy on the implementation of the Conventions has been agreed by Ministers in the Department for Business, Innovation and Skills (BIS) as being out of scope of the One In Three out rule and no offsetting deregulatory measure will need to be found for the measure.[18] Note that these costs were also included in the monetised costs to business in the 2012/2015 Impact Assessment.

Wider impacts

42. The wider impacts of the implementation of the revised Conventions are set out in section 4 of the impact assessment for the overall proposed legislation and are unchanged.

Specific impact tests

43. Small firms and micro-business: the three firms (four sites) impacted by the policy all have >49 employees[19], therefore this policy will not create disproportionate burdens on small businesses.

Summary and preferred option with description of implementation plan

44. Certain nuclear licensed sites do not pose a significant risk of third party damage in the event of a nuclear incident. The installations at these intermediate sites do not achieve a critical nuclear fission reaction, nor do they handle or store the large radioactive (including fission product) inventories associated with power reactors and spent fuel reprocessing plants and their associated facilities, and therefore the hazards are lower. Therefore, it would be disproportionate to apply the same level of liability and insurance as for nuclear power plants and spent fuel processing facilities. The preferred option is to set the liability and insurance limit for intermediate sites at the current level of liability of €160m (approx. £140m).

45. New Section 16 (1) (c) of the Nuclear Installations Act 1965, as amended by the Nuclear Installations (Liability for Damage) Order 2016, prescribes the nuclear third party liability and the required level of insurance or other financial security for intermediate sites. For the purposes of Section 16(1)(c) such sites will be defined by means of an amendment to the Nuclear Installations (Prescribed Sites) Regulations 1983.

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[18] http://www.legislation.gov.uk/uksi/2016/562/impacts

[19] According to company websites.

Annex A

Liability Levels in Other Countries

1. Other European countries such as the Netherlands and Germany (both places where Urenco has sites), impose reduced liability and insurance levels for such intermediate sites and they are expected to continue to do so. For example, in the Netherlands enrichment facilities fall within a category of low-risk installations that have levels of liability between €22.5m and €45m (which are lower than the level of liability for other nuclear sites) and it is expected that liability will be set above €70m for such sites under the revised regime. In Germany the position is that whilst all nuclear operator liability is unlimited in amount, enrichment facilities are required to carry a lower level (€240m) of financial security than reactor operators. France also has the concept of low risk installations which carry a level of liability (currently €22.9m) which is lower than that of nuclear reactor operators. The French liability level will rise to a minimum of €70m but we do not have confirmation of the new level yet. There is the scope for the liability level in France and the Netherlands to be raised above €70m and we do not know the precise level that they will choose but it will have to be equal to or greater than €70m.

Table A.1: International nuclear liability and insurance requirements for "intermediate " sites

	Liability and insurance requirement	
Country	**Current**	**Revised regime**
Netherlands	€22.5m - €45m	> €70m
France	€22.9m	> €70m
UK	£140m (~€160m)	€160m
Germany	€240m	€240m
USA	$300m (~€220m)	N/A

2. In the USA, (although not party to the Paris Convention) enrichment facilities constructed after 1990 are exempt from their national liability regime and legislation provides for the Nuclear Regulatory Commission to determine appropriate levels of liability for such enrichment facilities. The Nuclear Regulatory Commission has subsequently determined that an appropriate level of nuclear liability for Urenco's enrichment facility in New Mexico is $300m, which is substantially less than the level imposed on reactor operators.