RESPONSE TO THE IMPLEMENTATION OF CHANGES TO THE PARIS AND BRUSSELS CONVENTIONS ON NUCLEAR THIRD PARTY LIABILITY A PUBLIC CONSULTATION DATED JANUARY 2011, SUBMITTED BY THE NUCLEAR DECOMMISSIONING AUTHORITY.

Respondent details

Contributors:

Advice/ input/ comment has also been sought from the constituents of the wider NDA estate (the site licence companies and the NDA subsidiaries).

Organisation: Nuclear Decommissioning Authority

Address: Herdus House
Westlakes Science & Technology Park
Moor Row
Cumbria

CA24 3HU

Telephone:

Email:

Fax:

Nature of organisation

The Nuclear Decommissioning Authority is a non-departmental public body.

Consultation questions

1. Chapter 4 **Categories of Damage**	We would welcome views on our proposed implementation of the new categories of damage as described in this chapter and as set out in the draft Order. Particular questions you may wish to consider include: a) should particular types of claim be prioritised, and if so, how (see paragraph 4.14) b) should we make provision to deal with the

	case where a claim is made by a public authority for the cost of reinstating property in respect of which compensation has already be paid to the owner (see paragraph 4.29) c) should "compensatory remediation" be expressly included or excluded from the measures of reinstatement that can be claimed for (see paragraph 4.39) d) should we define what constitutes a "grave and imminent threat" and, if so, how (see paragraph 4.66)?
Response	a) Prioritisation should be unnecessary. Our understanding is that initially the operator will be liable for the first €700M of claims. In excess of this, claims will be met by HMG, HMG and Brussels Convention signatories and then HMG (subject to Parliamentary approval). Prioritisation is not practical. Costs associated with prevention of damage to the environment will probably be almost immediately obvious, acute personal injury claims and damage to property/ economic loss will also manifest themselves quickly. The claims which will take the longest time to become manifest will be personal injury claims for long latency cancers because of exposure to radiation – these may not be made for many years after an individual receives a damaging dose. Given this pattern, prioritisation is not possible. b) It is contrary to natural justice for two payments for the same damage. To avoid this, we suggest that in respect of property, clean-up be compulsory (with the option of compulsory purchase by the site operator) if the contamination level exceeds the intervention level in the Contaminated Land Regulations (3 mSv per year) c) It should be included and may be a speedy, expedient substitute for expensive, impractical, untimely site clean up. d) REPPIR is an appropriate and workable trigger for public health events and will doubtless often also constitute a "grave and imminent threat of nuclear damage" to trigger preventive measures under the liability regime. However, since the liability regime does not limit itself to public health issues but extends to include property damage and environmental issues, a wider set of criteria should be considered. It would be helpful to have any such set of criteria agreed in advance to avoid delay in implementing preventive measures, should the need arise.
2. Chapter 5 **Geographical Scope**	We would welcome views on our proposed implementation of the revised geographical scope of the Paris Convention and the Brussels Supplementary Convention as described in this chapter and as set out in the draft Order. Particular questions you may wish to consider

	include: a) should we align our legislation with the Paris Convention by deleting current section 13 (2) of the 1965 Act. Would any important protections be lost (see paragraph 5.13)? b) how should we define who should be treated as a UK "national" for the purposes of section 16A (see paragraph 5.21)?
Response	a) We should keep section 13(2) to enable seamen on UK vessels to bring claims against UK operators arising from events in non-Convention territories b) Since this is UK legislation and the payee is the UK government, a reasonable definition for a UK national is somebody/ something which is a part of UK society. This would include UK subjects/ citizens, people living in or visiting the UK (for injury and property damage when property is physically in the UK), and UK incorporated businesses.
3. Chapter 6 **Limitation periods**	We would welcome views on our proposed implementation of the revised provisions on limitation periods in the Paris Convention as described in this chapter and as set out in the draft Order. A particular question that you may wish to consider is whether we should apply the 30 year limitation period to claims in respect of injury caused by preventive measures (see paragraph 6.6).
Response	If the injuries caused by preventive measures are radiation induced then a 30 year limitation period is appropriate. If such injuries are not radiation induced, there is no reason to depart from the usual statutes of limitation.
4. Chapter 7 **Liability during transport**	We would welcome views on our proposed implementation of the change to the Paris Convention regarding liability for transport of nuclear substances and the other related matters as discussed in this chapter and set out in the draft Order. In particular, we would welcome views on the options set out in paragraphs 7.11 and 7.12. Is it common for nuclear substances to transit a licensed site while en route from one nuclear installation to another?
Response	It is common for nuclear substances to transit sites. In light of this, it is essential that national liability regimes harmonise with each other e.g. French law should be compatible with English law particularly in relation to direct economic interest. The second sentence of paragraph 7.5 of the Consultation raises fears about forum shopping that may be without foundation. The mechanism to deal with this should be carefully considered so that it does not create problems of its own The expression "direct economic interest" should be carefully considered. The commercial structures of the Nuclear Decommissioning Authority and its site licence companies (SLCs)

	means that direct economic interest cannot be readily applied as a test to one of the SLCs. The question as to what constitutes part of a "transport" as opposed to storage for a short period of time should be carefully considered. Is it possible to require operators to allocate nuclear liabilities between each other on a contractual basis? An arrangement where two operators (say a French operator and a British operator) are potentially liable for an escape from a single licensed site may cause complications with handling claims, undermining as it does, the liability channelling principle.
5. Chapter 8 **Financial liability levels**	We would welcome views on our proposed implementation of the revised financial liability levels as described in this chapter and set out in the draft Order. In particular, we would welcome views on: a) the likely impact of increasing the standard liability level to €1200 million as compared to €700 million; b) the proposal to set a reduced level specifically for low-risk transport and to use the criteria in the Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009. Is this a practical solution? Would it add significant administrative burdens? Are there alternative criteria that could be used to identify low-risk transport?
Response	a) If the operator is to be required to provide financial security for a €1200 million limit (rather than €700M), it will increase operator insurance premiums and so cost significantly. This may in turn affect the financial viability of new build. It may be "gold-plating" and may well commercially disadvantage UK operators vis-à-vis overseas operators who can sell electricity into the UK grid. It will commercially disadvantage nuclear vs. conventional (i.e. non-nuclear) power generation. It will probably also increase the cost of electricity to the customer. b) A reduced level for low-risk transport and for low-risk sites is welcome. There may be benefits in introducing the concept of intermediate risk as far as transits and sites are concerned. An intermediate risk site might be, for example, one of the Magnox sites which has been defueled but which has stores of immobilised ILW on site. Such a site presents a hazard to the public/ the environment which is several orders of magnitude less than a generating site. The same principle may apply to certain types of transport. The current liability framework is implemented in law by aligning the obligation for liability and financial security to the prescribing for licensing nuclear activities. As the original intent was to prescribe activities which had the potential to generate significant off site hazards as a result of accidents, this alignment was securely founded. However, it is now apparent that while the major nuclear activity can be terminated and the off-site hazard progressively reduced over time, the

current criteria for delicensing, and thus curtailing the liability regime, is difficult to achieve technically. It also appears disproportionate to equivalent hazard non-nuclear liabilities which are dealt with under, for example, the legal framework for contaminated land.

We note the intention of the 1983 Nuclear Installations (Prescribed Sites) Regulations to introduce a lower tier liabilities obligation but it is not clear how this would operate, or whether it is appropriate to the progressive and graded reduction in risk over time that we currently foresee on the publicly owned civil nuclear estate.

It is clear, for example, that an operating reactor site presents a greater risk than a LLW disposal facility. At the end of a reactor's life, the "potential for liability" gradient is characterised by a series of steps:

- The highest risk is the operating reactor
- There is a significant reduction when the reactor is defueled
- There is a further reduction when intermediate level waste is rendered quiescent or removed (and note that where such waste is removed there is no ongoing activity which would have required the site to be licensed as a stand-alone activity). What remains is slightly contaminated land, which presents a risk commensurate with that of a LLW disposal facility, and a redundant reactor building

We suggest that HMG takes this into account and develops a proportionate approach to risk rather than viewing the industry as either standard or "low risk" in terms of the 1983 regulations.

In summary, therefore, this response gives rise to further relevant considerations as follows.

1. Given the negligible risk, we suggest that land upon which major licensable activities have ceased need not be subject to the NIA liability/ financial security regime. This will avoid the situation where land contamination is subject to the liability regime when a LLW facility (presenting an equivalent risk) is not.

2. We agree that disposal facilities should not be brought under the NIA65 licensing regime because the risks are mitigated by other existing and more appropriate regulatory controls

We suggest that this should also be true for disposal facilities based on the same site as a nuclear licensed installation, at least once licensable activities have ceased. Otherwise,

, the exclusion will drive the perverse outcome of new low level waste disposal facilities being developed on green field sites adjacent to existing licensed sites rather than within the boundary of the existing site.

6. Chapter 9 **Availability of insurance/ financial security**	We would welcome views on the availability of insurance or other financial security. In particular, we would welcome views on: a) what forms of alternative financial security should be acceptable and over what classes of liability might alternative forms of financial security be appropriate? b) how Government should assess operators' proposals for alternative financial security arrangements? c) In addition, we would welcome views on the Government stepping in as a last resort to fill any insurance gap. How should Government calculate the charge for this?
Response	a) Insurance, bonds, government indemnities, bank guarantees, parent company guarantees. (Although we feel that it is unlikely that any commercial company will want to provide €700-1200M financial security per site in a form other than insurance since to do so would affect its overall financing arrangements). The proposed amendment imposes a liability limit on operators of €700M in respect of claims under any and all heads of damage. Different financial security for different heads of damage is something which will be unattractive to operators since (in order to comply with the NIA), they will have to buy more than one €700M limit. Such an arrangement will also introduce an element of moral hazard into claims handling. b) By a counterparty credit check carried out by HMG financial/ insurance market regulators – admittedly this is something of a snapshot and would have to be reviewed annually for the Secretary of State. c) The gap, if there is one, appears likely to be claims made between 10 and 30 years after the event, claims for permitted discharges and claims for environmental damage perhaps specifically in non-UK courts. If there is no commercial alternative, then we see no option to HMG intervention. Until we know what the gap is, it's impossible to calculate the charge. It is an area to be carefully considered. It is a move by HMG which brings a moral hazard risk for HMG, as well as the risk of claims for these heads of damage for uninsurable elements of risk. An arrangement which harnesses HMG to the commercial insurance market with a single overall liability limit might encourage a commercial insurer to settle HMG claims (if this is part of the remit) in preference to market insured heads of damage. The result would be that the operator's liability limit would be consumed by this "prioritisation" leaving the commercial insurance market with no or less liability (and claims!), unless there is a professional and impartial claims handling service. In terms of pricing environmental damage (prevention and remediation), one has to consider the probability of an event and multiply it by the potential claim costs. This cost (plus a margin for profit and

	administration) then needs to be recovered in insurance premiums. • The probability could be derived from design parameters (believed to be generally around 1 in 1,000,000 for a >INES 3 event). • Potential costs of an event will vary from site to site but would include: Sea bed/ foreshore monitoring/ clean up, economic activity in the DEPZ, local authority costs for evacuations from the DEPZ, legal costs. A very rough estimate for a land based nuclear site might be a potential loss of £100-200M. This may seem low but the costs of property damage and economic loss flowing from property damage would be far higher. This generates a technical premium per site of only £100-200 per annum (which over 1 million years would generate enough premium to pay a claim, making no allowance for an investment return on premiums). One could factor in risk aggravating characteristics like ageing plant and margins of error on quantum and the technical price would go up: on the other hand the cost of all losses to the operator for all heads of damage is €700M and if environmental claims are settled after a period of time has elapsed (perhaps because remediation takes a long time), then the loss may be paid by the liability layer lying above that imposed on the operator, finally the design criteria for modern plants are probably better than 1 in 1,000,000. Most of these factors are unquantifiable and it would be a mistake to spend money on spuriously founded actuarial studies. Rating factors for this type of business ought to include reactor type, attributes of surrounding (i.e. third party) property, liability limit, attritional exposure, catastrophe exposure, historic loss experience and (bearing in mind that liability is strict rather than negligence based) any extraneous factors which could cause a release so site susceptibility to fire, explosion, earthquake, tsunami, security, terrorism etc. Allowing a margin of error of a factor of 100 on this calculation, the annual site premium for the environmental heads of damage per active site should not exceed £10,000-20,000 per annum.
7. Chapter 10 **Jurisdiction**	We would welcome views on our proposed implementation of the Paris Convention changes regarding allocation of jurisdiction, both between Paris countries and within a Paris country, as described in this chapter and set out in the draft Order. In particular, we would appreciate views on: a) whether basing our tie-breaker provisions on the impact of an occurrence, event or breach of duty would be a workable solution – how practicable would it be to measure impact (see paragraph 10.16)? b) whether we need a fall back provision giving

	jurisdiction to the High Court of Justice (see paragraph 10.17). In addition we would welcome views on our proposed clarification of "occurrence" in new section 26(2A) of the 1965 Act.
Response	a) The tie-breaker provision removes the scope for argument and expensive ambiguity. However, it is not possible to predict with any certainty what the eventual total impact will be of a significant nuclear release at the date of the release. The point is still being discussed today in relation to the Chernobyl release 25 years ago. b) A fall back provision would be a prudent arrangement to avoid argument. Occurrence definition: In our view, occurrence is the release of material/ radiation from the site and this meaning is clearly what the person who drafted section 7 (2) had in mind. The Magnohard interpretation does not follow this line of thinking. From the point of view of applying the Convention limits (therefore legal and financial liability and insurance claims settlement), the clearest approach is to treat the departure of all particles from a site as part of a single occurrence triggered by e.g. a fire or an explosion for which the operator is liable up to €700M. If this is not the case, the nuclear liability risk will become uninsurable (in the eyes of a fresh insurer) since a series of past occurrences could give rise to a multitude of particles in the sea and a certainty of claims to that new insurer. This is not commercially healthy for operators. On the other hand, radiation linked disease claims may manifest themselves more than 30 year after the dose was sustained and certain types of damage such as Magnohard may relate to property damage which was caused (by a release) more than 30 years ago, but which is only now causing contamination. Whatever solution is adopted, there must be certainty from a risk insurability point of view.
8. Chapter 11 **Nuclear Waste Disposal Facilities**	We would welcome views on our proposals for implementing the Paris Convention requirements in respect of nuclear waste disposal facilities. In particular, we would welcome views on the number of commercial waste disposal facilities who may be affected by the proposed changes and how they may be affected
Response	The proposals are pragmatic, proportional and beneficial for any claimants. These facilities are already permitted/ authorised by the Environment Agency/ Scottish Environmental Protection Agency (EA/SEPA). From an EA/ SEPA point of view, waste can be accepted from a variety of sources i.e. more than one licensed site and indeed some material may be "excepted matter" in terms of the NIA. Until the opt-out is secured for LLW facilities, we believe that such sites should be categorised as low risk, that liability should be channelled to the waste site operator (liability hand over taking place when the consignor hands the material over to the waste site operator, mirroring

	the way that the LLWR near Drigg currently takes risk and title for LLW disposals) and that the operators of the waste sites should be obliged to provide financial security with a limit of €70M. Once the opt-out is secured, the liability regime and financial security would be whatever is required under environmental legislation. Hand over of liability from the nuclear licensed site to an EA/SEPA permitted/ authorised site (and from the nuclear liability to the environmental liability regime) would need to be clearly delineated. Finally, LLW disposal sites on nuclear licensed sites should be dealt with in the same way in terms of licensing, liability and financial security (see response to chapter 8, page 5, point 2, of this document) as any other LLW/VLLW disposal site. We believe that there are about 10 sites in the UK at present operated by less than 10 operators. For the avoidance of doubt, the proposed liability regime will have to apply to the proposed deep geological repository in the UK during its operational phase. Further thought will also need to be given to the licensing/ liability regime that should be applied to sites like the Scottish Government's proposed near surface higher activity waste disposal facilities. Since the site operator will have to meet the same dose and risk targets as the operator of a LLW facility, is it appropriate to follow the LLW disposal site precedent?
9. Chapter 12 **Representative Actions**	We would welcome views on our proposals for implementing the new Paris Convention requirements in respect of representative actions
Response	A foreign government representative action would be preferable to a plethora of claims from overseas claimants. The legal costs for claimants would be less.
IA 1	Can you provide information on current actual costs of insurance or other financial security and the impact of the proposed changes
Response	Commercially sensitive information redacted

IA 2	If you cannot provide actual costs, are you able to provide information on the scale of change for the costs of insurance or other financial security through higher insurance premiums or alternatives
Response	No response required
IA 3	Are these estimates for a standard installation or a low risk installation or for transport activities
Response	All NDA sites are classed as standard installations and to date the limit on transits has been £140M.
IA 4	Can you provide information on ongoing legal and administrative costs as a result of the changes and the likely scale and nature of transition costs
Response	Legal: No change unless there are claims. In this case, the operator would

	incur significantly more cost because he would be dealing with €700-1200M worth of claims as opposed to £140M. This means more claims, more claims handling costs and, since operators buy insurance for claims handling costs, higher insurance premiums. The NIA requires liability limits for injury/ damage – legal costs fall outside and are in addition to liability awards. Most sites in the UK therefore buy insurance not only for the liability claim but also for the legal costs incurred in dealing with the liability claims (as a separate section under their nuclear liability policies) Administrative: Operator: No change other than for claims handling costs (incurred by the operator in addition to legal fees). HMG: costs of running the "last resort" insurance facility, underwriting, collecting insurance/ reinsurance premiums, issuing insurance/ reinsurance policies, organising claims handling arrangements etc. Other: Forms of security other than insurance would bring with them issues like impacts on credit ratings or credit facilities. The increase in premiums/ limits on policies would cause an increase in insurance premium tax (currently 6% of premiums). The higher liability limits and potentially more complicated insurance placement (part commercial insurer and part HMG) may require more work for insurance brokers who would want to be remunerated accordingly. Transition: There is a set-up cost for the commercial insurer/ HMG panel arrangement. This will require professional insurance and legal work/ expertise.

Further Observations

1. Preventive measures

These might include civil engineering measures or other forms of active intervention. We regard this work as being independent of the nuclear release (although obviously a necessary response).

Contractors commissioned to undertake such work will have the usual nuclear exclusion in their insurance policies: this has the effect of excluding liability for accidents, injuries, property damage "arising....indirectly from radioactive contamination". This may cause problems if this is the sort of work that they are required to perform.

Who would be liable if there was some form of secondary release from a contaminated site caused by the negligence of the remediating contractor or the failure of his preventive measures?

Would liability devolve upon the operator liable for the initial/ primary release? This seems unjust, since he has no control over the contractor or the work, and it might increase the operator's insurance premiums.

There would clearly have to be (possibly urgent) cooperation between the owner of land, environmental and nuclear regulators, the operator and any contractor in relation to liability allocation and insurance procurement.

2. Commercially available insurance

At the time of writing (26 April 2011), we believe that Nuclear Risk Insurers are not prepared to consider liability for environmental damage overseas, claims arising more than 10 years after a release or permitted discharges. This may change over time (it has changed over the last 4 years).

4. Licensing of sites

As a general observation, we feel that it is helpful to regard licensing as a process to regulate particular activities rather than as a tool to regulate land use. At the decommissioning stage of a licensed nuclear site, this distinction should be drawn and proportionate regulation/ approval/ permitting applied.