



## NFLA Radioactive Waste Policy Briefing Number 71: UK Government consultation on the future regulation of nuclear sites as they reach their 'end' states

Prepared for NFLA member authorities, July 2018

### ***UK Government consultation on the future regulation of nuclear sites as they reach their 'end states of decommissioning and radioactive waste clean-up***

#### **1. Overview of Policy Briefing**

Over the past couple of years, the NFLA Secretariat has engaged in a number of meetings and workshops with the nuclear regulatory agencies and the UK Government (on behalf of devolved governments in Scotland and Wales) to determine the future regulation of nuclear sites as they reach their 'end' states. At present, there has been considerable discussion on the process for the nuclear regulators reducing their involvement and the potential management of the sites by local authorities.

The UK Government Department for Business, Energy and Industrial Strategy (BEIS) published a discussion paper on the regulation of nuclear sites in the final stages of decommissioning and clean-up in November 2016. The NFLA responded here:

[http://www.nuclearpolicy.info/wp/wp-content/uploads/2016/12/Rad\\_Waste\\_Brfg\\_66\\_Delicensing\\_nuclear\\_sites.pdf](http://www.nuclearpolicy.info/wp/wp-content/uploads/2016/12/Rad_Waste_Brfg_66_Delicensing_nuclear_sites.pdf)

The Government has taken on board some of the comments made, particularly by local government, and is now consulting on a draft update to this strategy in order to take these matters forward. This briefing provides an overview of the new consultation and NFLA's comments on it, which can be adapted for a local response. NFLA will submit an adapted version of this briefing in its reply to the UK Government. This response has been developed by the NFLA Secretary in liaison with the NFLA Scotland Policy Advisor.

The UK Government's consultation can be found at:

<https://www.gov.uk/government/consultations/the-regulation-of-nuclear-sites-in-the-final-stages-of-decommissioning-and-clean-up>

Closing dates for submissions are the **3<sup>rd</sup> July**. They can be emailed to the UK Government at the following email address: [NuclearDecommissioning2@beis.gov.uk](mailto:NuclearDecommissioning2@beis.gov.uk).

Or in writing to:

Nuclear Decommissioning and Radioactive Waste Team  
Department for Business, Energy & Industrial Strategy  
Victoria 3, 1 Victoria Street  
London, SW1A 0ET

#### **2. Overview of consultation**

The UK Government has launched a new consultation on the future regulation of nuclear sites in the final stages of decommissioning and clean-up. The Department for Business, Energy and Industrial Strategy (BEIS) has said the consultation seeks to enable a "*more flexible approach that can optimise waste management, thereby realising environmental benefits and reducing costs*".

Of the 36 nuclear sites located across England, Wales and Scotland, the Nuclear Decommissioning Authority (NDA) is responsible for the decommissioning and clean-up of 17. Other sites to be decommissioned in the future include the operational nuclear power stations owned by EDF Energy, and other nuclear sites in the nuclear fuel cycle, reprocessing, waste management, pharmaceutical and research sectors.

In the UK, the Nuclear Installations Act 1965 (NIA65) currently provides the legal framework for nuclear safety and nuclear third-party liability and sets out a system of regulatory control based on a robust licensing process administered by the Office for Nuclear Regulation (ONR). Under this regime, a site operator is required to have a licence to use a site for specified activities such as the operation of nuclear power stations. In addition to the nuclear site licensing regime, the NIA65 requires that financial provision is in place to meet claims in the event of a nuclear incident, as required under international law on nuclear third-party liability.

The consultation proposals include changing the NIA65 to allow licensees to exit the licensing regime once the site has reached internationally agreed standards and nuclear safety and security matters have been fully resolved. After the licence has been ended, the site would be regulated by the relevant environment agency and the Health and Safety Executive, in the same way that non-nuclear industrial sites undergoing clean-up for radioactive or other contamination are regulated.

Proposals for further clean-up would be assessed by the relevant environment agency under the Radioactive Substances Regulations. BEIS said this process would enable the site operator to work with the community to establish the "most appropriate" end-state for the site and would result in improved waste management and other environmental benefits.

BEIS also proposes to implement two recent decisions by the OECD Steering Committee for Nuclear Energy. These concern the exclusion of certain sites from the nuclear third-party regime when the main nuclear hazards have been removed and the risks to the public are small. It also proposes to tighten the licence surrender process to require a licensee to apply to ONR to surrender the licence, and to strengthen requirements for ONR to consult with HSE when the licence is surrendered or varied. (See World Nuclear News 10<sup>th</sup> May 2018 <http://www.world-nuclear-news.org/WR-UK-seeks-to-improve-decommissioning-regime-10051801.html>)

The Government says the main reasons for change are:

- nuclear third party liability currently continues beyond the point at which it is no longer required. The UK has not yet implemented the decisions of the OECD Steering Committee for Nuclear Energy concerning the exclusion of certain sites from the nuclear liability regime;
- site operators wishing to exit the NIA65 licensing regime are required to clean-up the site in a way that does not allow them to balance the overall safety and environmental risks and this may result in unnecessary costs; and
- disposal facilities for radioactive waste located on nuclear licensed sites remain subject to nuclear licensing. Such sites are also regulated by the environment agencies. This is considered dual regulation which is unnecessary after nuclear safety matters have been resolved.

### **3. 2016 Discussion Paper**

Previous to this consultation, BEIS published a discussion paper on the regulation of nuclear sites in the final stages of decommissioning and clean-up in November 2016.

In its response to this discussion paper, NFLA concluded that:

- There is a danger that what is being proposed will simply be seen as turning nuclear sites into nuclear dumps as a way of saving money.
- The concept of "optimisation" which is decided by the operator and regulators making value judgements needs to be replaced with the concept of the Best Practicable Environmental Option which uses a systematic consultative and decision making procedure.
- Any part of a nuclear site upon which it is proposed to allow unrestricted use must be able to show that doses to members of the public will be of the order of 0.01mSv or less per year.

Using a risk factor in conjunction with probability of receiving a dose is too flexible and unacceptable.

- Any waste left on-site must be concentrated and contained in a monitorable, retrievable store.
- Former nuclear operators should remain liable for any future unexpected events and should also be liable to pay for any regulatory effort in perpetuity.

These earlier proposals appeared to allow for the unrestricted use of sites which may have nuclear waste buried and which could be capable of administering doses of up to 20mSv/yr if human intrusion occurs.

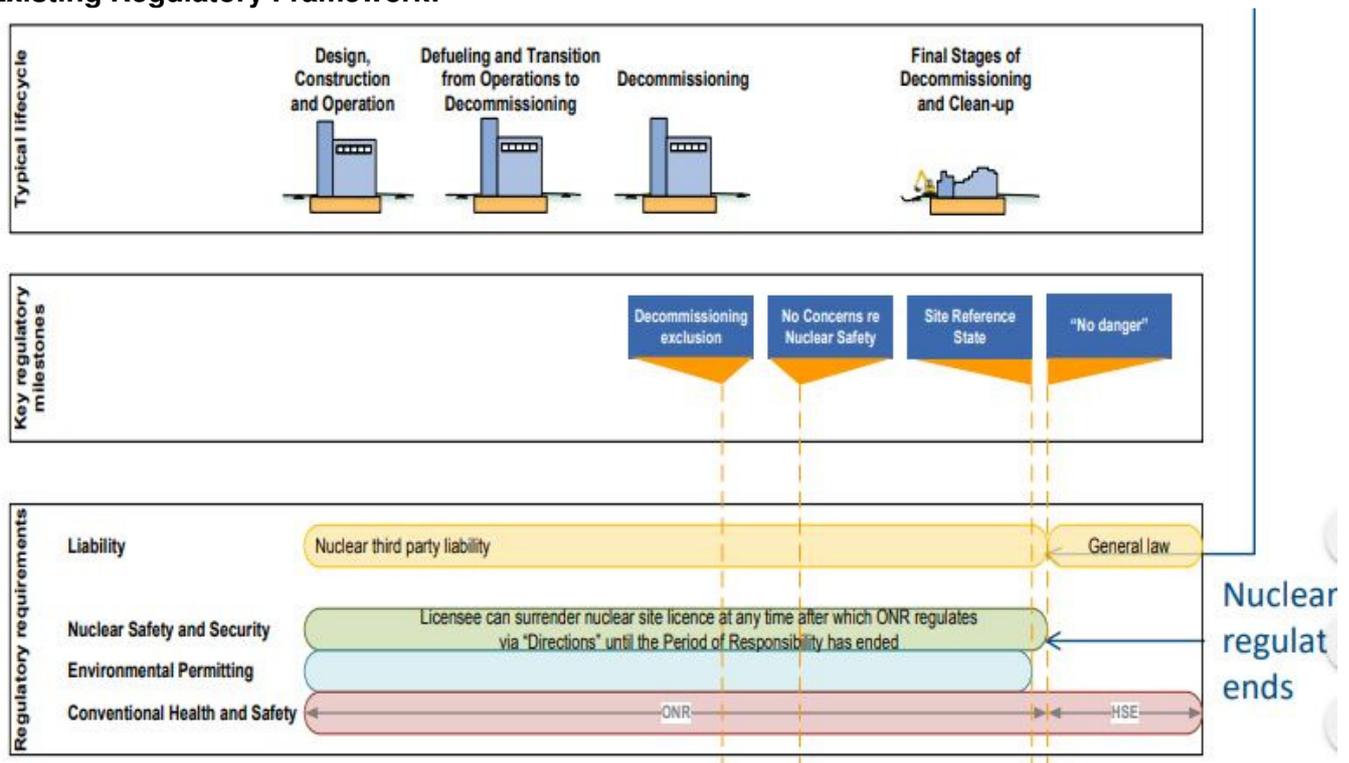
The HSE Criterion for De-Licensing Nuclear Sites (2005) says the European Basic Safety Standards Directive (Euratom 96/29) allows member states to exempt a practice where appropriate and without further consideration if doses to members of the public are of the order of 0.01mSv or less per year. HSE is of the view that this dose limit broadly equates to a risk of  $10^{-6}$  'as well as being consistent with other legislation and international advice relating to the radiological protection of the public. The joint environment agencies 'Guidance on Requirements for Authorisation (GRA) on Near Surface Disposal Facilities for Solid Radioactive Waste (Near Surface GRA)' says that a risk level of  $10^{-6}$  per year is equivalent to a calculated dose of around 0.02mSv/yr, where the probability of receiving the dose is one.

NFLA is broadly content that the updated consultation takes such issues more into account, but reiterates previous points made in our 2016 response to this updated consultation, which is attached in section 5 below. NFLA has also seen the response to this consultation from the LGA Nuclear Legacy Advisory Forum (NuLEAF), which it interacts with, and has supported some of their comments, where they match with NFLA policy.

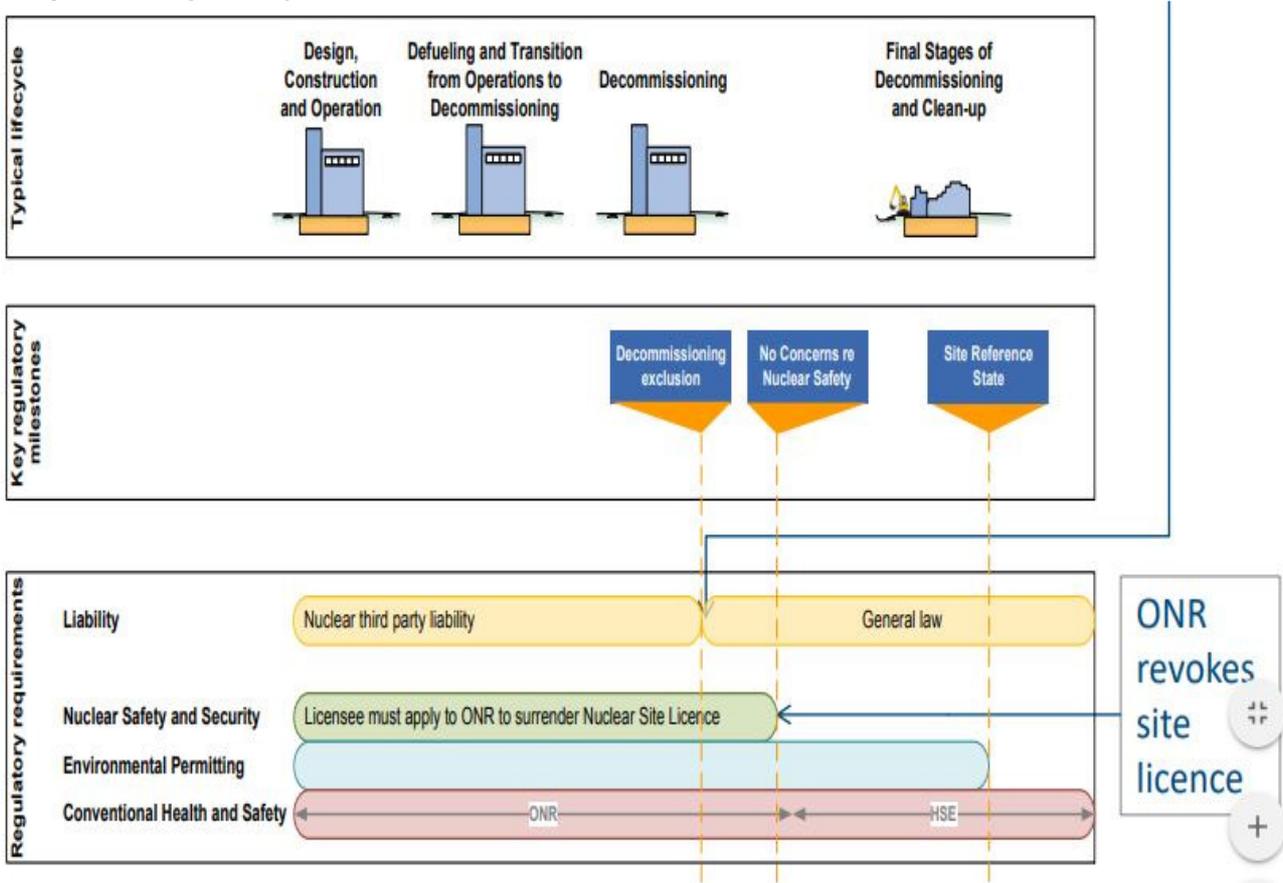
#### 4. The existing and proposed new regulatory frameworks

The consultation document outlines in diagrammatic form the existing regulatory framework and planned changes. NFLA reproduces these diagrams as they are useful for thinking through the changes.

##### Existing Regulatory Framework:



## Proposed Regulatory Framework:



## 5. NFLA response to consultation questions

1. Do you agree with the proposal to exclude nuclear sites in the process of decommissioning and clean up from the continuing application of the third-party liability regime, once conditions specified in the Paris Convention Decommissioning Exclusion are met? If not, why not?

NFLA always commences a consideration of changes to radioactive waste management policy through an agreed set of environmental principles. It recommends such a set of principles to BEIS and nuclear regulatory agencies in outlining new policy in this area. Those principles are as follows:

### Environmental Principles

The NFLA Steering Committee agreed a set of clear environmental principles which should be used for the management of nuclear waste in October 2004 at its Annual General Meeting in Hull. These are:

- The idea that radioactive waste can be "disposed" or be rejected in favour of radioactive waste management;
- Any process or activity that involves new or additional radioactive discharges into the environment be opposed, as this is potentially harmful to the human and natural environment;
- The policy of 'dilute and disperse' as a form of radioactive waste management (i.e. discharges into the sea or atmosphere) be rejected in favour of a policy of 'concentrate and contain' (i.e. store safely on-site);
- The principle of waste minimisation be supported;
- The unnecessary transport of radioactive and other hazardous wastes be opposed;
- Wastes should ideally be managed on-site where produced (or as near as possible to the site) in a facility that allows monitoring and retrieval of the wastes.

In our response to the previous discussion paper, NFLA noted:

- There is a danger that what is being proposed will simply be seen as turning nuclear sites into nuclear dumps as a way of saving money.
- The concept of “optimisation” which is decided by the operator and regulators making value judgements needs to be replaced with the concept of the Best Practicable Environmental Option which uses a systematic consultative and decision making procedure.
- Any part of a nuclear site upon which it is proposed to allow unrestricted use must be able to show that doses to members of the public will be of the order of 0.01mSv or less per year. Using a risk factor in conjunction with probability of receiving a dose is too flexible and unacceptable.
- Any waste left on-site must be concentrated and contained in a monitorable, retrievable store.
- Former nuclear operators should remain liable for any future unexpected events and should also be liable to pay for any regulatory effort in perpetuity.

All these points of concern still remain an issue for the NFLA. It reiterates that they need to be fully resolved by Government and the nuclear regulatory agencies within these proposed changes to the regulatory process.

While NFLA accepts the case for change it encourages the Government to take due consideration of each of the principles noted above to ensure there is a more effective assessment of the impacts of different options for the management of residual radioactive wastes in the final stages of decommissioning and clean up. This will allow for better consideration of the relative impacts of different options on worker health, transportation, noise, and the wider environment. It may enable earlier release or reuse of all or part of a site, but this must be carefully consulted with the local authority and the local community.

NFLA also supports the view of the LGA Nuclear Legacy Advisory Forum that local authorities and communities will only accept in-situ or on-site disposal if it can be demonstrated that decisions taken are the most sustainable possible and are not primarily driven by a desire to reduce costs. Transparency of decision making is essential, guided for NFLA by use of the concept of the Best Practicable Environmental Option (BPEO) which uses a systematic consultative and decision making process. For all of local government, effective engagement at every stage of the process is vital.

**2. Do you agree that the licensee of a nuclear site should be required to apply to the Office of Nuclear Regulation (ONR) to surrender the license and should lose the ability to surrender the license unconditionally as at present?**

Yes. It is critical to NFLA that the ONR remains with a central and primary role in any updated regulatory framework.

**3. Do you agree the ONR should be able to exclude waste disposal facilities from the nuclear site license if satisfied that nuclear safety and security matters for these facilities are fully resolved? If not, why not?**

Yes, but only if it has discussed this matter with local authorities and communities and explained in detail how it has been satisfied that such matters are fully resolved.

**4. Do you have any further evidence that we should take into account in our impact assessment?**

NFLA would agree with NuLEAF's view that there is a not a full assessment of the impact of options on the local economy, only the possible impact on Labour Markets. As NuLEAF note, while the early release of all or part of a site may be beneficial to the local economy, the leaving of radioactive waste in-situ may have a negative impact on perceptions of a community and therefore investment. We  
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appreciate that only a high level, qualitative assessment of these impacts is possible, but believe that all potential negative impacts must be properly recognised.

Members of NFLA have been consistently concerned with the increased transport of radioactive materials by road, rail, sea and even air. NFLA urges the Government to include the impacts of such transports and the potential risks in the event of an accident or malicious incident as part of resolving waste storage at the end of the decommissioning process.

## **5. Do you have any other comments on these proposals?**

NFLA's key concerns are noted in our response to question 1. If the Government and nuclear regulatory agencies takes full account of these in addition to most of the proposed change, the new proposed process could offer a realistic and effective longer-term plan.

NFLA believe it is essential that the proposed changes are implemented in close cooperation and ongoing discussion with local government and takes into account the views of local communities not just at the site level, but adjoining and on waste transport routes. It is essential as well to provide clarity on the framework on how that will be demonstrated over the different stages of decommissioning leading to the 'end state'.

Both local Councils and the local community spend an inordinate amount of time developing effective, transparent and environmentally sound plans for land use planning. The NDA and regulators need to develop a more effective partnership approach with both sectors that takes into account the land use planning visions at the local level. Such planning is done for the short, medium and long-term, and it would be beneficial for the NDA and regulators to mirror a similar approach.

NFLA support NuLEAF's comment that it must also be recognised that the initial reaction of many within an area to a proposal for in-situ disposal will be negative. Care and consideration for such views needs to be taken fully into account to ensure a fair, equitable and environmentally appropriate solution.

NFLA also support NuLEAF's assertion that the public will need reassurance that the ending of the 'no danger' requirement will not result in serious radioactive contamination remaining on site, and that the Radioactive Substances Regulations (RSR) provide a robust means of assessing the wider impacts of different clean up proposals. It must be explained that all waste, except some lightly contaminated Low-Level Waste (LLW) and Very Low-Level Waste (VLLW) will be removed; and that any decision not to remove material will be based on a clear assessment of the optimal solution. Meaningful and long-term effective engagement is absolutely essential on this matter. For NFLA, it is additionally essential to reiterate that all waste that is removed or is to remain on site should be contained in monitorable and retrievable storage facilities.

NFLA is opposed to the development of the new nuclear reactors for many reasons, but the principal one is that a long-term solution to the management of radioactive waste has not been found. The Government should reconsider its policy on supporting new nuclear when it is clear that cheaper, cleaner and more effective renewable and decentralised energy generation, efficiency and storage options exist.

The Government's policy on new nuclear may also have an impact if newer sites exist close to decommissioned nuclear facilities, in terms of general safety and security of the entire site. This may create some complexity in regulation that would need to be carefully considered. This is another reason not to seek to build new nuclear reactors.