

EXPLANATORY MEMORANDUM TO
THE NUCLEAR INSTALLATIONS (PRESCRIBED SITES AND TRANSPORT)
REGULATIONS 2018

2018 No. 42

1. Introduction

- 1.1 This explanatory memorandum has been prepared by the Department for Business, Energy and Industrial Strategy and is laid before Parliament by Command of Her Majesty.

2. Purpose of the instrument

- 2.1 This instrument revokes and replaces the Nuclear Installations (Prescribed Sites) Regulations 1983 (SI 1983/919) and defines for the purposes of section 16 of the Nuclear Installations Act 1965 (“the 1965 Act”), as prospectively amended by the Nuclear Installations (Liability for Damage) Order 2016 (SI 2016/562) (“the 2016 Order”), the types of installations and forms of transport to which a lower limit of nuclear third party liability may apply.

3. Matters of special interest to Parliament

Matters of special interest to the Joint Committee on Statutory Instruments

- 3.1 None.

Other matters of interest to the House of Commons

- 3.2 As this instrument is subject to the negative resolution procedure and has not been prayed against, consideration as to whether there are other matters of interest to the House of Commons does not arise at this stage.

4. Legislative Context

- 4.1 The United Kingdom is party to the following international conventions managed under the auspices of the OECD Nuclear Energy Agency:

- the Convention on Third Party Liability in the Field of Nuclear Energy of 29th July 1960, as amended by the Additional Protocol of 28th January 1964 and by the Protocol of 16th November 1982 (“the Paris Convention”); and
- the Convention of 31st January 1963 Supplementary to the Paris Convention of 29th July 1960, as amended by the Additional Protocol of 28th January 1964 and by the Protocol of 16th November 1982 (“the Brussels Convention”) (together referred to as “the Conventions”).

The Conventions are implemented principally by the 1965 Act.

- 4.2 In 2004 changes to the Conventions were agreed by the parties. These changes are contained in:

- the Protocol of 12 February 2004 to amend the Paris Convention (“the 2004 Paris Protocol”); and

- the Protocol of 12 February 2004 to amend the Brussels Convention (“the 2004 Brussels Protocol) (together referred to as “the 2004 Protocols”).
- 4.3 The 2016 Order (made on 4 May 2016) amends the 1965 Act to give effect to the changes made by the 2004 Protocols. Some of the provisions of the 2016 Order are in force (as of 25 May 2016) to enable the making of regulations, but the majority of the provisions will come into force when the 2004 Protocols are ratified. The Explanatory Memorandum for the 2016 Order provides background on the Convention changes and how the changes come into force and is available at:
<http://www.legislation.gov.uk/ukxi/2016/562/memorandum/contents>.
- 4.4 The Conventions are also implemented through a number of instruments made under the 1965 Act, including the Nuclear Installations (Prescribed Sites) Regulations 1983. Following on from the 2016 Order and the changes to the 1965 Act consequential changes to the 1983 Regulations are needed.

5. Extent and Territorial Application

- 5.1 The extent of this instrument is the United Kingdom.
- 5.2 The territorial application of this instrument is the United Kingdom.

6. European Convention on Human Rights

- 6.1 As the instrument is subject to negative resolution procedure and does not amend primary legislation, no statement of compatibility is required.

7. Policy background

What is being done and why

- 7.1 The Paris Convention (Article 7(b)(i)) provides the scope for Government to set a lower limit of third party liability for nuclear sites and carriage “having regard to the nature of the nuclear installation or nuclear substances and the likely consequences of a nuclear incident involving them”. The operator responsible for such sites or carriage is then required to provide insurance or other financial security only for the lesser amount. Such a lower limit does not mean that less compensation will be available. Compensation for damage in excess of the reduced amount is met from public funds in accordance with the Paris and Brussels Conventions. The purpose of the reduced liability limit is to reduce the burden of financial security costs on the operator to a level more in keeping with the risk, not to make less compensation available.
- 7.2 The United Kingdom has previously exercised this option to apply a lower liability limit to small (less than 600kW) nuclear reactors and the bulk storage of radioactive material within defined limits as set out in SI 1983/919.
- 7.3 The 2016 Order prospectively amends the 1965 Act to provide for three categories of low-risk site and two categories of low risk transport of nuclear matter (these amendments will come into force on the ratification of the 2004 Protocols). The term ‘risk’ is used in describing both the hazard associated with the site/transport as well as the risk of someone or something being adversely affected by a hazard. Using the term ‘risk’ in this way has regard to the Paris Convention which refers to the risk of nuclear damage, rather than hazard.

- 7.4 A non-regulatory approach was ruled out because a legal basis is required for nuclear operators to have a lower liability, and regulation provides regulatory certainty to the nuclear operators and their insurers.

Low risk nuclear sites

- 7.5 Regulation 3 sets out a new definition for low risk nuclear sites to which a liability limit of €70 million will apply. The definition is based on the type of operation and radioactivity limits, where such sites are either small nuclear reactors (not exceeding 600kW) and/or for the storage of bulk quantities of radioactive matter providing that the quantities of radionuclides do not exceed the activity limits set out in Schedule 2, and where the mass of any fissile material present does not exceed the relevant limit specified in Schedule 1. This definition is intended to be neutral in its impact on the types of sites that are covered by it and replaces the previous one which was based on Nuclear Energy Agency (NEA) criteria for excluding the transport of small quantities of nuclear substances from the third party liability regime.
- 7.6 The new definition uses criteria based on a multiple of the limits listed in Schedule 2 to the Radiation (Emergency Preparedness and Public Information Regulations 2001 (SI 2001/2975) (REPPPIR). Moving to an individual radionuclide basis enables a better correlation with risk (compared to the previous position which was based on groups of radionuclides), and provides a more logical relationship with the guidelines used by the Office for Nuclear Regulation as a basis for decisions on the licensing of storage of bulk quantities of radioactive matter.
- 7.7 As noted above, fissile material mass limits set out in Schedule 1 apply to low risk nuclear sites. These limits are intended to rule out criticality accidents which could result in an emission of high levels of radiation in the vicinity of such sites and the release of radioactivity to the environment. The limits in Schedule 1 are the same as those set out in REPPPIR Schedule 3 and replace the previous limits based on the NEA transport-related criteria. The change is broadly neutral in its impact on these sites.

Low risk disposal sites

- 7.8 The 2016 Order prospectively extends the nuclear liability regime to all disposal sites for nuclear matter. This extension will come into force on the ratification of the 2004 Protocols.
- 7.9 Regulation 4 describes low risk disposal sites as relevant disposal sites that are used for the disposal of low level waste (waste nuclear matter which has a very low level of radioactivity), at which no other nuclear matter is disposed of. A liability limit of €70 million will apply to such sites. To ensure consistency the definition of low level waste is based on the definition for low level waste set out in regulation 12(8) of the Transfrontier Shipment of Radioactive Waste and Spent Fuel Regulations 2008 (SI 2008 /3087) and the Low Level Waste Policy White Paper¹.

Intermediate risk nuclear sites

- 7.10 Regulation 5 describes those nuclear sites to which a liability level of €160 million will apply.
- 7.11 The description applies to sites used for the following purposes, as well as sites that have been used previously for these purposes but which are being decommissioned:

¹ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/254393/Low_level_waste_policy.pdf.

- Nuclear power generating sites that have been permanently defueled and the spent fuel stored safely in accordance with relevant good practices;
- Nuclear fuel fabrication sites, producing fuel from enriched uranium;
- Plants for the manufacture of radioactive isotopes for medical, scientific, agricultural and technical uses;
- The national repository for low level waste;
- Sites which would otherwise be sites prescribed by regulation 3 (low risk nuclear sites) but where the radionuclide or fissile material mass inventory exceeds the limits specified for low risk sites;
- Uranium enrichment facilities.

7.12 The descriptions recognise that the level of hazard at these sites is lower than at operating nuclear power plants or sites that reprocess spent nuclear fuel. Intermediate risk site installations do not achieve a critical nuclear fission reaction, nor do they store or handle the large radioactive inventory associated with operating power reactors and spent fuel reprocessing plants and their associated facilities. Therefore such sites represent a lower risk of causing widespread damage in the event of an incident.

7.13 The national repository for low level waste is included in regulation 5 because it is a licensed nuclear site and therefore does not qualify to be considered as a relevant disposal site.

Low risk transport

7.14 Regulation 6 sets out the conditions for the transport of nuclear matter to which a liability limit of €80 million will apply when the 2004 Protocols are ratified and the amendments to the 1965 Act come into force. This limit is the minimum set by the 2004 Paris Protocol. The aim is to provide a risk based approach which draws a distinction between the transport of nuclear matter which presents a low risk of significant third party damage in the event of an incident and transports that carry a higher risk (for example spent nuclear fuel) so that the level of liability is based on what a package contains. The criteria are based on the most recent (2012) version of the International Atomic Energy Agency Regulations for the Safe Transport of Radioactive Materials (IAEA Regulations). The IAEA Regulations and the criteria they set out are well understood by nuclear operators; using these criteria ensures consistency with other controls on the transport of nuclear matter. The criteria apply to transport of nuclear matter from nuclear licensed sites and from sites for the disposal of nuclear matter. Nuclear matter transports which do not meet these criteria are subject to the higher liability level of €1200 million as set out in section 16(1)(f) of the 1965 Act (as prospectively amended and coming into force on ratification of the 2004 Protocols).

Consolidation

7.15 On coming into force this instrument will revoke and replace the Nuclear Installations (Prescribed Sites) Regulations 1983 (S.I. 1983/919).

8. Consultation outcome

- 8.1 A public consultation on the proposals to define certain prescribed sites and transport was carried out between 29 June and 10 August 2016². There were 18 responses to the consultation, including 14 from nuclear operators, 2 from individuals, one from the nuclear insurance industry and one from a non-Governmental organisation. Broadly, the responses supported the Government's proposals with most comments raised on the inclusion of fissile material limits in the definition of low risk/hazard sites and the definition for intermediate risk sites.
- 8.2 A further consultation on a revised definition for intermediate risk sites was carried out between 11 August and 15 September 2017, in order to address the comments raised in the earlier consultation, in particular that the definition of intermediate risk site as originally proposed was too narrow. 10 responses were received. These supported the proposals with most comments related to specific questions on interpretation.
- 8.3 Government is implementing the proposals as set out in the 2016 consultation paper for low risk sites, low risk disposal sites and transport, and those for intermediate site as set out in the 2017 consultation.
- 8.4 The Government's response to the 2016 consultation was published on 11 August 2017 and is available on the Government website at: <https://www.gov.uk/government/consultations/consultation-on-defining-nuclear-prescribed-sites-and-transport>.
- 8.5 The Government's response to the 2017 consultation was published on 5 January 2018 and is available at <https://www.gov.uk/government/consultations/defining-intermediate-risk-prescribed-sites-further-consultation>.

9. Guidance

- 9.1 Officials in BEIS have engaged with industry stakeholders to explain the new provisions.

10. Impact

- 10.1 There is no impact on charities or voluntary bodies.
- 10.2 Government has an existing statutory liability for third party claims in excess of an operator's liability in accordance with the Paris and Brussels Conventions in the event of a nuclear incident in the United Kingdom.
- 10.3 The impact on the operators of low risk sites, low level waste disposal facilities and low risk transport is covered in the impact assessment which was submitted with the 2016 Order: <http://www.legislation.gov.uk/uksi/2016/562/impacts>.
- 10.4 The overall impact on the operators of intermediate sites is to limit the increase in the costs of insurance or other financial security compared to the costs that would apply for standard nuclear sites such as operating power stations.
- 10.5 There are an estimated 15 nuclear sites deemed to be in scope for definition as an intermediate risk site. Twelve of these sites are owned by the Nuclear Decommissioning Authority (NDA). In the absence of this instrument, all of these sites will see their insurance premiums rise as the liability limit for each site increases

² <https://www.gov.uk/government/consultations/consultation-on-defining-nuclear-prescribed-sites-and-transport>

from £140m to €700m in 2019 (when the prospective changes are expected to come into force), and by €100m annually to €1200m over the next five years. This represents the counterfactual. This instrument moves these sites to a lower, “intermediate” level of risk where sites face a maximum liability of €160m. Each site will benefit through a reduction in their insurance premiums as a greater share of their liability (risk) will be met by Government.

- 10.6 This equivalent annual net saving to business is estimated at around £1.9m per year. This figure is founded on commercially confidential data provided by industry on their insurance premiums. This analysis was supported by the UK nuclear risk insurance pool (Nuclear Risk Insurers Ltd (NRI)). The industry data and NRI advice has been used to appropriately scale these estimates down to the €160m threshold. The change in premiums was assessed over a ten year period and discounted using the social discount rate. The central NPV for the analysis was given as £16.4m (2016 prices).
- 10.7 At consultation stage the central benefit to business was calculated as around £5.2m, based on industry data for non-NDA sites which were then extrapolated across to the NDA estate. One of the NDA sites in this initial data has a high insurance premium (confirmed by new data) which skewed the initial estimate of benefits. In addition, following feedback from the consultation it was noted that the overall benefit for the NDA would be less than originally calculated, as although the majority of the NDA estate fall within the category of intermediate sites the liability insurance premium is packaged with and weighted towards the high risk standard liability limit site.

11. Regulating small business

- 11.1 The legislation does not apply to activities that are undertaken by small businesses.

12. Monitoring & review

- 12.1 A review provision has been included in this measure. The review (to be undertaken within five years of this instrument coming into force) will consider the objectives to be achieved by regulation 3 to 6; assess the extent to which they have been achieved; assess how these obligations are implemented by other contracting parties to the Conventions; and, whether the objectives remain appropriate and if they could be achieved with less regulation.
- 12.2 The first report following the review is due to be published within five years of regulations 3 to 6 coming into force and at intervals not exceeding five years thereafter.

13. Contact

- 13.1 Kate Ward at the Department for Business, Energy and Industrial Strategy Telephone: 030 0068 5645 or email: kate.ward@beis.gov.uk can answer any queries regarding the instrument.