

Public consultation on ONR's interpretation of 'bulk quantities' of radioactive matter - supplementary

In 2011 The Office for Nuclear Regulation (ONR) consulted on its proposed approach to the definition, in relation to storage of radioactive matter, of "Bulk Quantities" for the purposes of section 1(1)(b) of the Nuclear Installations Act 1965 and the Nuclear Installations Regulations 1971. The consultation ended on 12th December 2011.

After careful consideration of the comments received, ONR is considering amending its proposal in the Interim Position Statement in one key respect.

Under the original proposal, ONR would have considered that an installation was designed or adapted to store a bulk quantity of radioactive matter if it was designed or adapted to store a quantity of such matter at or above 100x the levels set out in Schedule 2 to Radiation (Emergency Preparedness and Public Information) Regulations 2001 (REPPIR).

We are now considering a revision to this approach to broaden our interpretation of bulk quantities for this purpose.

This consultation paper sets out ONR's revised approach, the reasons for change and seeks views on the changes that ONR is considering.

ONR will publish a final response to both consultation exercises after consideration of the responses to this supplementary consultation.

Supplementary consultation

**Application of “bulk quantities” in relation to the
storage of radioactive matter**

**for the purposes of Section 1 of the Nuclear Installations Act 1965 (NIA)
and the Nuclear Installations Regulations 1971**

June 2012

Introduction

In 2011 The Office for Nuclear Regulation (ONR) consulted on its proposed approach to the definition, in relation to storage of radioactive matter, of “Bulk Quantities”¹ for the purposes of section 1(1)(b) of the Nuclear Installations Act 1965 and the Nuclear Installations Regulations 1971. The consultation ended on 12th December 2011.

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Reasons for considering a change to the proposed Interim Position Statement

Comments received in the earlier consultation clearly reflected concerns about the impact of ONR’s proposed approach on the UK radioactive waste management sector. In particular, concerns were expressed that an operator could gain a commercial advantage over a licensed facility by coming just under the threshold.

ONR cannot alter the position that some installations will require a licence and others will not. This is the nature of the legislation. While the comments referred to commercial advantage – having considered the nature of the comment, ONR accepts that a single threshold figure approach to the interpretation of “bulk quantities” could result in anomalies from a risk perspective.

Whilst ONR remains of the view that an installation designed or adapted to store quantities of radioactive matter at or above 100x REPPIR are sufficient to require a licence in all cases, ONR accepts that the use of the single figure may mean that installations with a smaller inventory but posing similar risks are not licensed under the 1965 Act.

Taking the approach outlined in the original consultation would mean that, for example, an installation designed or adapted to store a quantity of radioactive matter at 75x REPPIR would not require a licence. This would be the case even if the relevant matter was volatile, in flammable form and likely to be subject to chemical processing. ONR’s

¹ Bulk quantities of radioactive matter for the purposes of Section 1 of the Nuclear Installations Act 1965 (NIA) and the Nuclear Installations Regulations 1971 (NIR).

view is that this would not be consistent with its objective of proportionate and risk based regulation. It is, therefore, consulting on a further revision to the Interim Position Statement.

Options for change

ONR considers that there are three potential options for changing the approach outlined in the original draft Interim Position Statement:

1. To change to a purely risk based criterion.
 - a. ONR considered this option in the original consultation and we remain of the view that this would not meet the objective of clear and transparent regulation in that:
 - i. Risk is not a quantity per se – hence our view is that this approach would not meet the requirements of section 1 of the Nuclear Installations Act 1965;
 - ii. Calculation of risk can be complicated and is not a precise science, hence the criterion would not meet the objective of clarity and transparency.
2. To have a different lower single figure threshold.
 - a. ONR's view is that this option should not be pursued as this approach could still potentially lead to anomalies from a risk based perspective.
3. To move to a position whereby installations which are designed or adapted to store a quantity of radioactive matter below 100x REPPiR are potentially licensable under the 1965 Act in addition to installations designed or adapted to store a quantity of radioactive matter at or above that threshold. Whether an installation requires a licence below the 100x REPPiR threshold would be determined on a case by case basis.

ONR's believe that Option 3 above provides the best solution to the reasons for considering a change.

ONR's view is that responses to the earlier ONR consultation support the proposal that quantities in excess of 100 times REPPiR Schedule 2 should be regarded as "bulk quantities". If ONR were to adopt flexibility above the "100 times" figure then this would change previous decisions made by ONR as to whether storage installations require a licence under the 1965 Act. ONR remains of the view that the decision to licence the existing installations is correct and does not wish to alter this position. For this reason we propose that any flexibility should apply to levels below this figure.

We argued in the earlier consultation that quantities of radioactive matter of less than 10 times REPPiR Schedule 2 are not an exceptional risk and hence should not be considered as "bulk quantities". We still stand by this assertion; hence, the lower limit for any discretionary range must be 10 times REPPiR Schedule 2.

During the pre-consultation phase ONR considered the use of the range 10 to 100 times REPPiR Schedule 2. However, because of our pre-consultation engagement, we rejected this option on the basis that it was not as clear and transparent as a single figure option.

In reconsidering this matter, we have come to the view that, on balance, the need for proportionality outweighs the clarity and transparency aspects. We have therefore reinstated this option for consideration.

In terms of clarity and transparency, we believe, based on our earlier impact assessments, that there are no current facilities in the discretionary range and which thus might be required to be licensed under the NIA 1965 were the revised position adopted. The revised criteria therefore still provide clarity and transparency for the vast majority of existing situations. However, as part of this consultation we would like to know if there are current or planned facilities that do come within the discretionary range.

We anticipate that the discretionary range would work as follows:

(a) an installation designed or adapted to store a quantity of radioactive matter at or below 10x REPIR Schedule 2 would not be regarded as an installation designed or adapted to store a bulk quantity of radioactive matter;

(b) an installation designed or adapted to store a quantity of radioactive matter at or above 100x REPIR Schedule 2 would be an installation designed or adapted to store a bulk quantity of radioactive matter.

(c) an installation designed or adapted to store a quantity of radioactive matter above 10x REPIR Schedule 2 but less than 100x REPIR Schedule 2 (the discretionary range) would potentially be designed or adapted to store a bulk quantity of radioactive matter. Whether the quantity of the matter was to be regarded as “bulk” would be determined by ONR on a case by case basis;

Where multiple isotopes are present, we would follow the formula set out in Schedule 2 to REPIR.

In carrying out the above calculations ONR will disregard: (a) sealed sources; and (b) radioactive matter being stored incidental to transport.

How will ONR make their case-by-case judgements?

ONR will make the case-by-case judgements in a way that avoid decisions (when comparing different cases) that run counter to the principles of risk based regulation. We will consider the factors behind actual risk from the radioactive matter that the installation is designed or adapted to store such as:

- the form of the material;
- any processes through which the material will be put;
- any internal or external hazards that may affect dispersion of the material.

We will then compare the risks and hazards with those from licensed facilities (with inventories scaled to be equivalent to 100 times REPIR Schedule 2). If the risks or hazards for the facility under consideration in the 10 – 100 times REPIR Schedule 2 range are higher than a comparable licensed site then there would be a presumption that the facility under consideration should be licensed.

ONR expect to use the Hazard Identification and Risk Evaluation (HIRE) reports already required under REPIR Regulation 6 to inform this assessment. More information on Hire reports can be found in “A guide to the Radiation (Emergency Preparedness and Public Information) Regulations 2001 <http://www.hse.gov.uk/pubns/priced/l126.pdf>”.

In coming to a decision, ONR will consult with the applicant, the Environment Agency or Scottish Environment Protection Agency, the local planning authority, and the Department of Energy and Climate Change. ONR will also seek the views of the devolved administrations in Scotland and Wales.

Impact of the change

Taking into account the statutory and proposed exemptions ONR have found no current sites with an inventory in the range 10x REPIR Schedule 2 < quantity < 100x REPIR Schedule 2. ONR's view is therefore that this proposal will have no effect on existing installations that are not currently licensed under the Nuclear Installations Act 1965. However, should respondents believe there are any current facilities that do sit within this range please let us know.

In the event that future applicants do have to go through the case-by-case decision process – ONR currently anticipates that the HIRE report would provide it with sufficient information on which to make a decision about licensing under the 1965 Act. As the applicant would have to produce this irrespective of the need for a site licence, the additional burdens placed on the applicant in terms of determining whether a licence will be required for their installation will be small.

Consultation Questions

1. Do you agree that we should address the potential anomalies from a risk perspective by changing the original proposal to have a single figure threshold?

Yes/No

Please provide some comments to support your answer.

2. Do you agree that option 3 above is a reasonable way to address this?

Yes/No

Please provide some comments to support your answer.

3. Do you think that option 3 above is a better overall approach to interpreting “bulk quantities” than the original single figure of 100 x REPIR Schedule 2?

Yes/No

Please provide some comments to support your answer.

4. Are you aware of any current installations that, having taken account of statutory exemptions, and exempting sealed sources, would fall into the discretionary range?

Yes/No

Please provide some comments to support your answer.

5. Are any businesses contemplating making a commercial decision to enter into this area of work where the use of the discretionary range as described would have an impact?

Yes/No

Please provide some comments to support your answer.

Responses to be addressed to:

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By 25 July 2012
