

Revised Proposals for a Future Exemptions Regime under the Radioactive Substances Act 1993 and the Environmental Permitting Regulations 2011

A Summary of Stakeholder Responses

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Full text of the consultation can be found on DECC's website:
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Introduction

This paper summarises the main issues arising from the stakeholder engagement held between August and October 2010 (including 2 workshops), and sets out the response from Government (the Department of Energy and Climate Change, the Scottish Government, the Welsh Government and the Department of the Environment in Northern Ireland). Written responses were received from 51 stakeholders; the list of respondents can be found at Annex 1.

A summary of the key points of concern are listed below, together with an indication of how the Government has dealt with them. A quantitative analysis has not been undertaken as this engagement exercise was not a formal public consultation and informal comments received using alternative channels (e.g. workshops) were also incorporated.

A large number of minor drafting and clarity points also arose which have been considered in the final drafts of both the legislation and associated guidance. In addition, there were a number of responses which were made on the basis of misunderstandings or misinterpretation of the legislation. Such misunderstandings have been taken into account in revising the guidance and are not listed in this paper.

Key Points

Timely implementation across the UK

- Stakeholders were keen that the proposals should be adopted across the UK as soon as possible.

Due to differing parliamentary processes, there will need to be staged laying of the regulations but all of the Administrations will try to ensure that the legislation comes into force at the same time. There will be a transitional period to allow industry to familiarise themselves with the provisions and make the necessary changes.

Fundamental approach to deriving dose limits

- Views were expressed to the effect that the methodology used internationally to derive the dose limits was potentially flawed and hence not appropriate for protecting the public and the environment.

Government takes advice from the Health Protection Agency (HPA). Much of the advice is based on recommendations from the International Commission for Radiological Protection (ICRP), to support policy and legislation. The proposed legislation applies the appropriate limits; nothing in the proposed legislation either modifies this advice or requires a novel interpretation of the advice.

Consideration of non-human species in the radiological assessments

- Certain stakeholders felt that non-human species should be considered in radiological impact assessments.

Currently the Basic Safety Standards Directive (BSSD) does not require consideration of non-human species, but the radiological assessments which support the proposed BSSD framework will be revisited if these considerations are incorporated into any revision of the BSSD which the UK will

need to implement. Some allowance for the effects of radiation on non-human biota is made by the regulators, in accordance with their responsibilities under the Habitats Directive.

Compatibility with other policy/legislation

- Some stakeholders identified areas within the proposed framework where there was potential conflict with other legislation and where double-regulation could occur. Particular issues of overlap and/or conflict related to hazardous waste legislation and the 'no danger' criterion applied by HSE under the Nuclear Installations Act 1965.

The Government has been undertaking horizon scanning and reviewing opportunities to reduce the regulatory burden, particularly in areas of double-regulation. The authorities responsible for related legislation have been extensively consulted during the development of the revised framework and we believe that:

1. Areas of possible conflict have been removed; and
2. Areas of possible overlap (double regulation) have been eliminated where possible to do so.

Interaction with other legislation will be covered in the Government guidance.

The possibility of further exemptions

- Stakeholders felt that the framework should be flexible enough to amend and allow further exemptions if they were deemed appropriate for exemption at some point in the future.

The proposed regime takes into account all known and foreseen circumstances, so far as the extensive consultations have revealed. However, the legislation is much more amenable than hitherto to the incorporation of new exemptions, provided that the dose criteria can be complied with, and there is a real need for such exemption.

Guidance on matters such as background deduction, instrument detection limitations etc

- Stakeholders mentioned that they would wish for various topics to be covered in guidance (e.g. measurement), and that it would help resolve some of the difficulties with the interpretation of legislation.

The regulators' guidance will account for topics such as measurement, averaging, limits of detection, rounding, etc and examples will also be included.

Clarity regarding scope of exemptions and how the provisions relate to each other

- Several queries were raised relating to how the various exemption provisions worked together and stakeholders sought further clarity on the scope of the exemptions.

The wording has been reviewed and revised in the legislation, and the revised Government guidance takes account of reported difficulties in interpretation.

Consolidation of Schedule 23 of the Environmental Permitting Regulations 2010

- There was overwhelming support for the provision of a consolidated version of Schedule 23 of EPR 2010

The Government has taken note of the support and a consolidated Schedule 23 will appear in the regulations for England and Wales.

De-minimis values for reporting loss or theft

- There was overwhelming support for the need of a de-minimis level for the reporting of loss or theft of radioactive substances and articles, to avoid unnecessary bureaucracy.

Working with the regulators, an appropriate level has now been incorporated into the legislation.

Isotopes not explicitly included in tables

- Concern was expressed that some isotopes were not explicitly included in the tables.

The limit tables have been taken from Euratom publications, which cover those radionuclides in common use. There is both a default value and a mechanism for deriving limits for unlisted radionuclides incorporated into the relevant tables.

Length of time for accumulation

- Some stakeholders felt that the accumulation period for waste sources was too short, and could be disproportionately costly for disposal.

Government believes that the length of time for accumulation is appropriate for exempt waste sources. There are, however, provisions within the legislation to extend the accumulation time period in consultation with the regulators.

Calculating limits

- Stakeholders sought further clarity on whether calculations should be for total activity or head of chain.

The legislation now sets out more clearly how the limits apply in different circumstances, and further explanation is to be provided in guidance.

Incorporation of values from guidance documents RP89 and RP133

- Whilst the legislation relies, in part, on Euratom guidance documents RP122 (parts 1 and 2), representations have been made to also incorporate RP89 and RP133 (from the same Euratom guidance document series), which concern specific recycling, reuse and clearance under particular circumstances. This would provide additional exemptions for certain types of waste and disposal routes.

The Government acknowledges that these two documents are, indeed, candidates for consideration in a conditional exemptions regime, but due to timescales, it has not been feasible to fully consider incorporating these documents within this framework. This may be considered at the next revision of the legislation when the new BSSD is required to be adopted into UK legislation.

Incorporation of values from IAEA safety series document RS-G-1.7

- There have been requests from stakeholders for the incorporation of the RS-G-1.7 exclusion ('out of scope') values into this framework as these values are likely to be integrated into the new BSSD. These values are marginally different, in some specific cases, from those

within RP122, and it is suggested that incorporation of these values could avoid a need for further transition in future.

This cannot be done at present, because RS-G-1.7 has no legal standing in the UK. If these values are adopted within the new BSSD, the legislation will be revised accordingly.

Including Very Low Level Radioactive Waste (VLLW) definition in this framework

- With waste management practices having changed, there were some concerns expressed that the VLLW definition set out in the Government's 2007 Low Level Radioactive Waste (LLW) Policy would not necessarily be appropriate as a basis for exemption in all instances.

Government has no plans at the moment to change the LLW policy.

Conditional exemptions for wastes arising from past practices employing naturally occurring radioactive material (NORM)

- Stakeholders were concerned that the proposals only allowed legacy wastes from NORM practices to be exempted to levels with a dose criterion of $10\mu\text{Sv/yr}$, and it was not deemed feasible to regulate to such low levels.

The NORM waste definition has been changed to exempt NORM wastes from industrial activities, and in most circumstances, NORM legacy wastes arising from the remediation of contaminated land using the $300\mu\text{Sv/yr}$ dose criterion.

Dose criterion used for NORM

- Concern was expressed about the inconsistencies between the dose criterion used for regulating waste from NORM practices and NORM industrial activities .

The UK has to comply with the BSSD which does not exempt 'practices' in the same way as other activities involving NORM, and uses a different dose criteria.

Descriptions/limits for specific substances and articles

- Stakeholders raised queries about the description and limits for particular substances and articles.

The lists of exempted substances and articles (sealed sources, etc.) have been amended to improve clarity and the provisions are based more closely on the outputs of the radiological impact assessments.

Exemption for incinerator ash containing trace amounts of radioactivity

- There was some concern expressed that the disposal of all incinerator ash would need to be permitted under the revised regime.

Most incinerator ash wastes are expected to be out of scope of the regulations because of the very low concentrations of radionuclides. This is the case at present, and we do not expect this situation to change. Some higher-activity ash may arise in cases where an incinerator deals with large volumes of radioactive waste by comparison with the quantity of conventional wastes incinerated. Such wastes are candidates for conditional exemption, based on the exemption criteria set out in the legislation. No special case has been made for the exemption of the disposal of incinerator ash.

Reuse/recycling of particular liquids

- Stakeholders felt that inappropriate concentration limits were being applied to certain liquids which posed very low radiological risk for the pathways that they would be likely to enter.

The Government agrees that it is inappropriate to regulate certain hazardous liquids at certain concentrations which do not pose a radiological risk, under radioactive substances legislation, and provisions have been put in place to put 'out of scope' various liquids where they:

1. Cannot enter the drinking water pathways due to their hazardous nature (and are prevented from doing so under other legislation); and
2. Do not compromise the relevant radiological dose limits if disposed of to disposal routes other than watercourses.

Provisions for exempting aqueous liquids

- Some stakeholders felt that the provisions for exempting aqueous liquids were unclear, particularly the scope of exemptions, and queries were raised about the practicalities of applying these provisions in anticipated situations.

The Government has revised the exemption provisions for aqueous liquids to take into account practical aspects relating to current and possible future discharges, while keeping strictly to the established dose criteria. The limits set are supported by appropriate radiological impact assessments.

Aqueous liquid exemption levels

- Some stakeholders felt that the levels developed for exemption of aqueous liquid radioactive waste were too low, and that the generic radiological assessments used assumptions which were too conservative.

The Government does not believe that these levels are too low, they have been derived by HPA and consider multiple intake pathways.

Disposal routes for aqueous liquid radioactive waste

- Some stakeholders were concerned that the proposals did not indicate the disposal routes that could be used and restricted volumes to those for sewer disposals (which were found to be the most restrictive).

The Regulations have been revised to allow aqueous liquid radioactive waste to be discharged to both sewer and to other watercourses, but different limits will apply depending on the disposal route.

Produced water arising from the operation of oil and gas fields

- Some stakeholders were concerned that there could be an increase in the regulation of produced water under the new regime.

We have looked through accessible records and do not believe this to be the case. As is the situation now, some produced water will be outside the scope of the legislation; some may require permitting and some will be a candidate for exemption.

Accumulation of medical radioactive waste

- Concern was expressed that the exemption level for accumulating radioactive waste at medical establishments was not deemed sufficient to allow for patient re-admissions, etc. and would result in the need for unnecessary permitting.

The limit has been increased for accumulating radioactive waste at medical establishments.

Exemption for radon gas

- Some stakeholders felt that the guidance was unclear about whether radon gas was within or outside the scope of regulation and there was some conflict with the text in the guidance.

Natural gas, containing radon, and used for industrial, commercial or domestic activities will be 'out of scope' of the new legislation. Radon arising from wastes containing NORM (as a result of the natural decay chains involved) will only be regulated where radon arises as a result of a practice (an activity relating to the radioactive, fissile or fertile properties) or to an 'industrial activity' as listed in the regulations. The production (but not storage, distribution or use) of natural gas is such an 'industrial activity'. The guidance has been amended accordingly.

Exemption for Krypton-85 gas

- Stakeholders informed us that many lighting devices incorporate this low radiotoxicity gas and that the recycling and disposal of wastes from such devices can release the gas direct to the atmosphere, which would require permitting when the radiological impacts of such releases are extremely low.

We have now incorporated exemption limits for this type of release to avoid the need for a permit.

Exemption limits for small quantities of gaseous waste (arising from small-scale laboratory and medical procedures)

- Stakeholders felt that the exemption provisions incorporated for gaseous radioactive waste were not practical and could result in either unnecessary permitting or the need for administrative arrangements for the small quantities.

Exemption provisions for gaseous radioactive waste have been revised to allow small volumes of such gases to be exempted.

Next Steps

The technical work has now been completed and the legislation drafted. There are different procedures to be followed to achieve the necessary parliamentary approval. However, all Administrations are aiming to have their respective legislation laid to allow for a coming into force date of 1 October 2011.

There will be a transitional period of 6 months to allow for organisations to understand the framework and make any necessary changes.

Guidance will be issued to support the new regime.

Annex 1

List of Respondents

1. Dounreay Site Restoration Ltd
2. Hunterston A Site
3. Radman Associates
4. MEL Chemicals
5. Magnox South Ltd
6. Gartnavel Royal Hospital
7. Apollo Fire Detectors Ltd
8. Marion Hill, Independent Consultant
9. UK Heavy Mineral Sands Association
10. Huntsman Pigments
11. Enterpris Ltd
12. HM Treasury
13. Nuvia Ltd
14. Nuclear Free Local Authorities
15. CLEAPSS
16. Food Standards Agency
17. Oil and Gas UK
18. Apache North Sea Ltd
19. Studsvik UK Ltd
20. CNR International (UK) Ltd
21. BP
22. Selex Galileo
23. Shell UK Ltd
24. Scottish Schools Equipment Research Centre
25. Rolls-Royce Plc
26. Health Protection Agency
27. Devonport Naval Base
28. Babcock International Group (Marine Division)
29. Maidstone Hospital
30. GE Healthcare
31. Chevron Upstream Europe
32. Society for Radiological Protection
33. Ministry of Defence
34. Doosan Babcock
35. National Grid
36. Research Sites Restoration Ltd
37. LLW Repository Ltd
38. British Nuclear Medicine Society
39. Institute of Physics and Engineering in Medicine
40. Entec UK

41. Tradebe
42. EDF Energy
43. Tata Steel
44. Atomic Weapons Establishment
45. BAE Systems – Submarine Solutions
46. Sellafield Ltd
47. Lighting Industry Federation
48. Aberdeen Radiation Protection Services Ltd
49. Nuclear Decommissioning Authority
50. Rachel Western, Nuclear Researcher for Friends of the Earth (Cumbria)

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