

The UK National Radon Action Plan

From Directive to Publication

Neil McColl, Jane Bradley, Tracy Gooding PHE Centre for Radiation, Chemical and Environmental Hazards



Radon in the UK



Breakdown of the average UK radiation dose in 2010 by source of exposure



- Identified as issue late 1970's
- First advice issued mid 1980's
- Key concepts of "Action Level" and "Affected Area" in place since 1990
- Radon in building regulations
- Database of measurements (~600,000 homes)
- Risk mapping includes geology
- UKradon.org 10,000 visits/week

Radon in the UK





Radon in the UK

Radon levels measured by PHE in UK dwellings



Radon concentration (Bq m⁻³)



EU Basic Safety Standards

EU Basic Safety Standards (BSS)

Protection against dangers from exposure to ionising radiation.

Most of BSS concerns man-made sources of radiation.

Replaces 1996 EC BSS and 1990 EC recommendations

Scope extended to include naturally occurring radionuclides (radon) in homes as well as workplaces





Implementing EU-BSS in UK

- Much of EU-BSS has been implemented through update or consolidation of existing legislation
- PHE has been supporting UK government departments to transpose the various requirements into UK law

 Relevant radon specific items (Articles 7, 74, 103) were included in a "Statutory Instrument" to ensure regulatory transposition of items where "Member States shall..."



Implementing EU-BSS in UK

- Ionising Radiation (Basic Safety Standards) (Miscellaneous Provisions) Regulations 2018
- SI 2018 / 482
- Regulation 10
- "The Secretary of State must establish a national plan addressing long-term health risks from any source of radon ingress...."

_	STATUTORY INSTRUMENTS			
2018 No. 482				
	RADIOACTIVE SUBSTANCES			
	PUBLIC HEALTH			
1	The Ionising Radiation (Basic Safety Standards) (Miscellaneous Provisions) Regulations 2018			
	Made 16th April 2018			
	Laid before Parliament 17th April 2018			
	Coming into force 8th May 2018			
	The Secretary of State makes these Regulations in exercise of the powers conferred by section 2(2) of the European Communities Act 1972(a).			
R	he Secretary of State is a Minister designated for the purposes of that section of that Act in lation to basic safety standards for health protection of the general public and workers against e dangers of ionising radiation(b).			
	PART 1			
	General			
с	itation and commencement			
0	 These Regulations may be cited as the Ionising Radiation (Basic Safety Standards) Miscellaneous Provisions) Regulations 2018 and come into force on 8th May 2018. 			
Ь	nterpretation			
	2. In these Regulations—			
	"Basic Safety Standards Directive" means Council Directive 2013/59/Euratom laying down basic safety standards for protection against the dangers arising from exposure to ionising radiation and repealing Directives 89/618/Euratom, 90/641/Euratom, 96/29/Euratom, 97/43/Euratom and 2003/122/Euratom(c);			
(a	1 1972 c.68. Section 2(2) was amended by the Legislative and Regulatory Reform Act 2006 (c. 51), section 27(1)(a), and the European Ushim (Amendment) Act 2008 (c. 7), section 3(3). These are other amendments to section 2 not relevant to these Regulations. Under section 57 of the Socialard Act 1998 (c. 46), despite the transfer to the Social Ministers of Insticons in relation to implementing edilpations under Community Jain to respect of edwords matters, the Insticon to the Societary of Education 1 and the Societary of Education 1 and the Community Jain to respect of edwords matters, the Insticon to Respectively of Education 1 and the Societary of Ed			
(b (c	State in relation to implementing those obligations continues to be exercisable by the Secretary of State as negarth Scotland. 0 See designation order SL 1991/2289. The order was nevoked for certain purposes not relevant to these Regulations. 0 JN No L 13, 17.01.2014, p 1.			



Developing the UK radon plan

- Core group of key national government departments and bodies prepared draft National Radon Action Plan (NRAP) Departments of Health, Local Government; Health and Safety Executive; Environment Agency; Drinking Water Inspectorate, Scotland; Wales; Northern Ireland
- Agreed overall process of development, consultation and implementation of a UK NRAP
- Gap analysis to identify elements already in place and potential areas for new action
- Input from professionals through industry day
- Prepared draft plan for public consultation
- Public consultation on gov.uk



Gap analysis - radon general

Item	UK position
Art 103.1 "establish a national action plan for radon in homes, public access buildings, workplacesconsidering items in Annex XVIII"	UK has prepared a Plan to demonstrate that UK has a system to address radon and meets various EU- BSS radon requirements
Art 103.2 "ensure measures to prevent radon in new buildings"	Each part of UK has radon included in building regulation and supporting arrangements.
Art 103.3 "identify areas where radon concentration in significant number of buildings is expected to exceed reference level"	UK has already identified "radon affected areas", where at least 1% of homes expected to exceed the Action Level



Gap analysis - radon in homes

Item	UK position
Art 74.1 "establish reference levelsnot higher than 300 Bq m ⁻³ ."	UK Action Level of 200 Bq m ⁻³ since 1990.
Art 74.2 "promote action to identify dwellings exceeding the reference levelencourage remediation"	UK has UKradon website, Housing Health and Safety Rating System, PHE targeted programmes, radon in most housing conveyance
Art 74.3 "provide local and national information on radon risks importance of measuringmeans of reducing radon"	UK has various radon websites including: Gov.uk, Ukradon.org, Health and Safety Executive, Building Research Establishment, British Geological Survey, industry groups (Radon Council, UK Radon Association), local authorities with guidance on range of topics



National Radon Action Plan

Annex 18 (XVIII) : items that are "to be considered" in the national plan

- Planning items
 - Assignment of responsibilities
 - Strategy for surveys to establish radon distribution
 - Approach for identifying high radon areas
 - Basis for setting national reference levels
 - Strategy for preventing radon in new buildings
 - Guidance on methods of measurement and remediation





National Radon Action Plan

Annex 18 (XVIII) : items that are "to be considered" in the national plan

- Implementation items
 - Strategy for reducing radon exposure in homes
 - Strategy for remedial action (reducing indoor levels)
 - Strategy for communications to increase awareness and inform local decision makers, employers etc
 - Provision of financial support for radon surveys and homes with very high radon levels
 - Consideration of interaction with other issues (eg energy saving)





The UK radon plan - elements

- Outline of UK radon exposure sources, distribution, exposure levels
- National strategy overall approach to addressing radon in homes and workplaces through legislation, guidance, services, support etc
- Existing arrangements and provisions for radon
 - Formal guidance (eg reference levels, risk areas)
 - Regulations and guidance
 - radon in the workplace
 - protecting new buildings
 - radon in water and building materials
 - Communicating radon
 - Developing the evidence base on radon





The UK radon plan - elements

- Forward plan...
- ...maintain and develop existing arrangements
- ...address gaps
 - update national survey,
 - extend measurement validation scheme to workplaces,
 - consider remediator accreditation scheme,
 - review radon exhalation from building materials
- ...review and update arrangements for plan itself





Consulting on the UK radon plan

- PHE process legal and approval procedures - on gov.uk
- "What is missing or wrong?"
- Invitation to over 600 by email
- Professional groups
 - Society for Radiological Protection;
 - HSE Community of Interest;
 - industry groups.



50 responses

20 full responses

200 specific points



NRAP next steps

- Draft NRAP published and consultation period has finished
- Analyse comments and prepare responses. Where appropriate propose changes to draft NRAP
- Review and agreement by the Core Group
- Publish summary of comments received and responses
- Prepare final version of NRAP and publish on www.gov.uk
- Maintain annual overview of actions through crossgovernment group and established forums (eg annual UK Radon Forum event)
- Plan for first full NRAP review in ~2023



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