

**Draft Safety Guide DS432 “Radiation Protection of the Public and Protection of the Environment”
(Version dated September 2015)**

Status: STEP 11 – Second review of the draft safety standard by the SSCs

COMMENTS BY REVIEWER				RESOLUTION			
Comment No.	Para/Line No.	Proposed new text	Reason	Accepted	Accepted, but modified as follows	Rejected	Reason for modification/rejection
Germany	Title	Proposed new title of the Safety Guide: “Protection of the public and the environment from radiation exposures”	Germany supports herewith the related proposal of Canada (see resolution table of Member States comments) to change the title of this Safety Guide, as the second part of the existing title (i.e. “Protection of the environment”) is too broad and could be misunderstood to include all aspects of environmental protection, including aspects other than radiological ones, which is out of the scope of this document.	A			
USA	general	Please provide a link to reference [4] IAEA Safety Standards Series No. GSR Part 7 draft document.	Reference [4] Preparedness and Response for a Nuclear or Radiological Emergency, General Safety Requirements, IAEA Safety Standards Series No. GSR Part 7 is not available on the IAEA website.		It will be printed in early November.		
Japan	2.30/3 (p.10)	...internal exposure resulting from intake within this year”	Internal exposure is defined as the committed effective dose for 50 years (for adults) and up to age 70 years (for children) after intakes.	A			
France	2.36 to 2.46	Delete 2.36 to 2.46	No added value as these paragraphs only summarize GSR Part 3 and do not provide any additional guidance.			R	It is considered important to refer to the different parts of the BSS that

							include responsibilities of government and regulatory body.
Germany	2.44	<p>The first sentence of Para 4.7 should be moved to Para 2.44 and inserted into this paragraph as second sentence, with modifications in text as follows:</p> <p>“The responsibilities of the regulatory body in relation to protection of the environment is to specify requirements for the prospective assessment of radiological environmental impacts, as set out in para. 3.9 (e) of GSR Part 3 [2]. The Safety Guide DS427 [9] provides a framework for the prospective assessment of radiological environmental impact in planned exposure situations, which includes the assessment and control of the impact of radioactive releases during normal operation and of accidental releases resulting from anticipated operational occurrences or conceivable accidents identified by means of a safety assessment.”</p>	<p>It is proposed to move the first sentence of Para 4.7 from Section 4 “Protection of the environment” to Section 2, subsection “RESPONSIBILITIES” of the regulatory body. The first sentence of Para 4.7 is related to the responsibilities of the regulatory body regarding planned exposure situations (expected exposures and potential exposures).</p> <p>Prospective assessment of radiological environmental impact in planned exposure situations includes the assessment and control of the impact of accidental releases resulting from <u>anticipated operational occurrences</u> (compare with Para 2.4 of DS432). The amendment with respect to the plant states is required for ensuring consistency with the definition of the term ‘potential exposure’ in GSR Part 3 (see section “Definitions”). According to that, a potential exposure is a <i>“prospectively considered exposure that is not expected to be delivered with certainty but that may result from an anticipated operational occurrence or accident at a source or owing to an event or sequence of events of a probabilistic nature, including equipment failures and operating errors”</i>.</p>	A	<p>The text has been modified in line with the proposed changes.</p> <p>However, it is considered that the text belongs in Section 4, along with the other guidance in that Section.</p>		

			With respect to this proposal, see also the IAEA resolution table of Member States comments, German comment on a new paragraph after 2.40. This comment has been accepted but not yet implemented into the current version of DS432.				
France	3.1 to 3.7	Delete 3.1 to 3.7	No added value as these paragraphs only summarize GSR Part 3 and do not provide any additional guidance.			R	These paragraphs are important to define the scope of public exposure in planned exposure situations.
Germany	3.5 (a)	“Liquid and airborne discharges from facilities <u>and activities</u> (see reference [10];”	For completion. See e.g. Paras 1.10–1.11 and 1.13 in the subsection “Scope” of DS442 (draft 6 dated August 2015).	A			
Germany	3.5 (b)	“Direct radiation from sources within practices, e.g. from X ray equipment in a medical facility, patient released after I-131 ¹³¹ I therapy, industrial radiography, ...”	Consistent notation of radionuclides throughout the Safety Guide. Compare with notation in Paras 2.1, 3.4 (a), 3.80 (c) and (e), and 3.96.	A			
Germany	3.13	2 nd sentence: “The general criteria for clearance <u>are</u> parallel those for exemption prescribed above, and are also provided in Schedule 1 of GSR Part 3 [2]: ...”	Editorial (missing word).			R	Current text reads ok.
Germany	3.14	“Under these criteria, material may be cleared without further consideration under the terms of para. 3.14 <u>3.13</u> (a) provided that in reasonably foreseeable circumstances the effective dose expected to be incurred by any individual owing to the cleared material is of the order of 10 µSv or less in a year.”	Wrong paragraph is referred to. The general criteria for clearance are addressed in Para 3.13.	A			
Germany	3.60	“On the basis of the hazards identi-	For the sake of completeness, the	A			

		<p>fied and the potential consequences of a nuclear or radiological emergency, the governments are required to ensure that protection strategies are developed, justified and optimized at the preparedness stage for taking protective and other response actions effectively in a nuclear or radiological emergency to achieve the goals of emergency response (Requirement 5 of GSR Part 7 [4]).”</p>	<p>relevant requirement from GSR Part 7 should be referred to, as done elsewhere in DS432.</p>				
France	3.67 3.68	<p>3.67. Paragraph 4.30 of GSR Part 7 [4] states “The government shall ensure that interested parties are involved and consulted, as appropriate, in the development of the protection strategy.” In the context of an emergency, consultation of interested parties throughout the process of justification of the overall protective strategy and any protective action in the context of the strategy should occur.</p> <p>3.68. During the urgent and early phase of an actual emergency, there may be no time to consult interested parties or to consider justification of protective actions and the strategy, therefore adequate preparedness needs to account for this. As the emergency response moves towards recovery activities and the transition phase, there is time for consulting interested parties and for justification. In this phase, more thorough justification of the strategies to enable the termination of the emergency and to transit to the new exposure situation should be implemented. In</p>	<p>The last sentence of 3.67 is more ambitious than Para 4.30 of GSR Part 7 and is inconsistent with 3.68. Adapting 3.67 and merging with 3.68 will be a better option.</p>	A	<p>The text has been modified, together with para. 3.71.</p>		

		this context, para. 5.95 of GSR Part 7 [4] requires: “Both radiological consequences and non-radiological consequences shall be considered in deciding on the termination of an emergency as well as in justifying and optimizing further protection strategies as necessary.”					
USA	Page 31, paragraph 3.78, line 5	Request that “non- radiological consequences” be clarified. It is unclear whether “non- radiological consequences” means non-health related consequences or something else.	Clarification	A	A footnote has been added to the paragraph.		
France	3.81	<u>Some</u> Contamination of areas can also arise from the operation of facilities and activities that are subject to regulatory control under the requirements for planned exposure situations, as a result of authorized activities such as <u>controlled</u> discharges, the management of radioactive waste, and decommissioning. The control of such contamination is through the requirements for planned exposure situations, and not for an existing exposure situation.	Clarification as consequences of discharges are deemed acceptable, following the environmental impact assessment	A			
Germany	3.84	“The government and the regulatory body should take measures to identify and evaluate existing exposure situations taking into account the types of existing exposure situations mentioned in para. 3.83 3.80, based on indication or evidence of public exposures that are of concern from the point of view of radiation protection.”	Wrong paragraph is referred to. The different types of existing exposure situations are specified in Para 3.80.	A			
Germany	3.99	“Paragraph 5.1 of RS-G-1.7 [2] [19] states that there are some situations	Wrong reference is cited in this paragraph.	A			

		(such as the use of some building materials containing natural radionuclides) for which exposures from materials due to radionuclides or natural origin ...”					
Japan	3.99/1 (p.36)	Paragraph 5.1 of GSR Part3 RS-G-1.7 [2] states...	Reference is wrong.	A	Replace [2] with [19]		
Japan	3.101-3.103 (p.36,37)	Add some description regarding new TECDOC “ <i>Guidance on Radionuclide Activity Concentration for Food and Drinking Water</i> ” to these paragraphs.	This TECDOC is important document in considering the content of the paragraph 3.101-3.103 so it should be mentioned here. The resolution table mentions “ <i>A draft TECDOC cannot be referenced by a Safety Standard</i> ”. However DS427 refers to two draft TECDOCs (i.e. Ref.61 and 62). More coordinated management of developing 3 relevant documents (DS432, 427 and 442) is needed.	A	The TECDOC is still being developed and undergoing internal clearance. A reference to the TECDOC will be included if it is completed prior to DS432 being published.		
Germany	4.7	“The Safety Guide DS427 [9] provides a framework for the prospective assessment of radiological environmental impact in planned exposure situations, which includes the assessment and control of the impact of radioactive releases during normal operation, based on the scientific knowledge of radiation effects and should not impose unnecessary burden to operators and regulators.” The Safety Guide DS427 [9] discusses the aspects to be considered when assessing prospectively radiological environmental impact for planned exposure situations and provides, in Annex I, a methodology to assess the radiological impact to flora and fauna based on the ICRP approach for the protection of the environment [7, 22], <u>without imposing unnecessary bur-</u>	It is proposed to move the first sentence of Para 4.7 from Section 4 “Protection of the environment” to Section 2, subsection “RESPONSIBILITIES” of the regulatory body (insertion into Para 2.44 with some modifications in text). The first sentence of Para 4.7 is related to the responsibilities of the regulatory body regarding planned exposure situations (expected exposures and potential exposures). It is proposed to move the first sentence of Para 4.7 from Section 4 “Protection of the environment” to Section 2, subsection “RESPONSIBILITIES” of the regulatory body, to a new paragraph after Para 2.44. The first sentence of Para 4.7 is related to the responsibilities of	A	Text has been modified – see also response to comment 2.		

		den to operators and regulators. ”	<p>the regulatory body regarding planned exposure situations. This topic is addressed in Section 2.</p> <p>The last part of the first sentence should be moved to the end of the second sentence, to be consistent with the statement in Para 5.77 of DS427 (version 7 dated August 2015).</p>				
Germany	Ref. [9]	<p>“INTERNATIONAL ATOMIC ENERGY AGENCY, A general framework for pProspective radiological environmental impact assessment and protection of the public for facilities and activities, IAEA, Vienna [Draft DS427 (revision of NS-G-3.2)].”</p>	<p>This is the current working title of DS427 (latest version 7 dated August 2015).</p>	A			