

NMSS

From: Frank Cardile
To: RidsEdoMailCenter
Date: Thu, Aug 15, 2002 9:00 AM
Subject: Closing ticket G20020341 - - comments on DS 161
Place: RidsEdoMailCenter

We have closed this ticket within NMSS based on the attached input to RES. Per instructions from Barbara Williams, I am also sending you the input to close out the Green Ticket. Thank you

CC: Roberta Gordon

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From: Frank Cardile ^{-IMNS}
To: Robert Meck ^{-RES}
Date: Mon, Aug 12, 2002 10:12 AM
Subject: Re: MEETING--ISCORS Recycle subcommittee--Integrated U.S. Member State comments on DS 161

In reply to your email, attached, as we previously discussed, are comments from DWM and IMNS staff to be timely for a coordinated ISCORS subcommittee review meeting.

Do you know yet the timing of the ISCORS subcommittee review vs. a vs. providing input to OIP and EDO, with possible Commission TA input, if necessary?

^{RES} >>> Robert Meck 07/31/02 04:38PM >>>
Dear ISCORS Recycle Subcommittee Members,

I am being assigned to coordinate the combined, interagency U.S. comments for DS 161, "Radionuclide Content in Commodities not requiring Regulation for Purposes of Radiation Protection," under the auspices of the ISCORS Recycle Subcommittee. You have been involved in providing comments in an earlier draft and have been sent, by e-mail, the current version of DS 161 for Member State Review. For your convenience, I have attached the pdf version of DS161, the associated technical basis, our earlier annotated technical basis, and the comparison of the current SDLs with clearance values from earlier work.

The feasibility of a single integrated U.S. comment submittal may depend on whether some Federal agencies plan to independently submit their own agency's comments separately, regardless of this subcommittee's product. If you are aware of an independent effort in your agency to provide comments, please bring it to my attention.

The proposal is to invite all persons who are or would be active in preparing the response to participate in the development of the subcommittee's comments for submission to the IAEA. If an agency wishes to express a differing view from that of the subcommittee's, then that differing view would be included and the agency identified in the subcommittee's comments for submission. Please find out who will concur for your agency.

I propose that we meet in the very near future and prepare an outline of what is to be in our comments. I'll work on the exact text and distribute it by e-mail for concurrence. The following dates are open on my calendar:

August 8, 9, 18-23.

As I understand it Gus, Debbie, Chia, and Steve are the leads for their respective agencies. I especially need to know your availability for the proposed meeting, if you agree with the proposal above.

Best regards,

Bob

Robert A. Meck, Ph.D.
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CC: Anthony Huffert; Charlotte Abrams; Cornelius Holden; Donald Cool; Giorgio Gnugnoli;
Jodi Lieberman; W. Ott

**Title: Radionuclide Content in Commodities not requiring Regulation for Purposes of Radiation Protection
DS161**

Comments by Reviewer				Resolution			
Reviewer: G. Gnugno/A. Huffer/F. Cardile (NMSS)		Date: August 12, 2002					
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Country/Organization: USA/Nuclear Regulatory Commission							
Comment No.	Para/Line No.	Proposed New Text	Reason	Accepted	Accepted but modified as follows	Rejected	Reason for modification/rejection
General			The basis for new scope defining levels should be established by means of a safety requirements document. This approach is trying to supersede the Basic Safety Standards (BSS).				
General	Through-out document	When incremental doses are meant, it should indicate that these are above background explicitly.	Language is too vague throughout the document regarding total dose exposure or incremental dose above natural background.				
General	Through-out document	SDLs should specify total concentration or concentrations above background levels, specifically for naturally-occurring radionuclides.	See above reason.				

1	1.4/ALL	<p>1.4. In addition, the ICRP recommendations and a number of international conventions have considerations that outline their scope of application: A summary of these considerations are:</p> <ul style="list-style-type: none"> •The exemption from intervention, which involves the use of the ICRP concept of <i>intervention exemption levels</i> [6], is recommended specifically in the context of international trade in essential "commodities" such as food, in areas affected by significant incidents and are established for temporary emergency application. These levels are frequently referred to as "action levels" and are not considered appropriate for routine situations; •The exemption 	<p>The suggested changes to para. 1.4 are needed because 1) the word mechanism is incorrect in the text (no mechanisms are addressed), and 2) the 1st bullet may be misinterpreted to indicate that the avertable dose target level of 10 mSv/a is applicable to materials not requiring regulatory control. The reference needs to be qualified to avoid misapplication of large accident cleanup strategies to low activity commercial products.</p>				
2	1.7/3	<p>ADD SENTENCE: It is acknowledged that this may result in noncomparable levels for different types of commodities. Such inconsistency is warranted because of the types of radionuclides involved and the potential types of uses of the commodities in question.</p>	<p>Some rationale needs to be provided, so that regulatory authorities, operators, industry, etc, do not appear to be capricious in setting guidance for control of commodities.</p>				

3	1.8	This document only addresses volumetric contamination in commodities. Surficially-contaminated materials eligible for release from regulatory control are not addressed.	This is a significant omission from the safety series publications list. There are significant inventories of metals and other materials which should be included in the "commodities" heading, but are excluded from the SDLs listing. Perhaps referring to SS No. 111-P-1.1 could provide a temporary benchmark to use for surficial cases.				
4	Table 1	New text is needed to explain the Pb-210 and Po-210 values of 5 Bq/g	There is no explanation given for the Pb-210 and Po-210 values of 5 Bq/g				
5	3.1/5, 3.5/4, 3.6i(B).there is little chance that an individual...	If the term "low probability" is used, then an estimate should be provided. For example, to have the same level of risk, the low probability would need to be on the order of 1%. Then perhaps the figure of 1% should be used to characterize this low probability.				
6	3.2/8	ADD SENTENCE: Some locations are naturally antagonistic to human health and can be addressed by physical isolation or restricted access; there may be little benefit from remediation.	There may be little point to remediation of naturally poisonous areas which may have high radionuclide content. The guidance should encourage controls in the form of restricted access or other physical barriers rather than leave silent the implication that a remediation is necessarily warranted.				
7	3.3/14	of regulatory control and the degree of such control should be based on an analysis of the worldwide distribution of the activity concentrations of naturally occurring radionuclides and on the specific national circumstances (e.g., availability of resources).	Control can be institutional as in restriction of access or translocation of affected populations. The implication of the original language are too suggestive that remediation is the sole course of action.				

8	3.5/3-4	...with a modeling considering a low probability (1%) of the dose to any individual approaching 1mSv in a year.	The indefinite article "a" is unnecessary. Using a probability of 1% results in the same level of risk.				
9	3.6/2	Reference 13 is EC's RP-122, but the supporting Draft Safety Report references EC RP-89. Which reference is correct?	The Safety Guide and Safety Report should have similar references.				
10	3.6/ALL	This section should state that certain scenarios encompassed skin contamination also.	Draft Safety Report indicates that skin contamination was evaluated for metal and concrete processing (scenarios II and III), but not for typical exposure situations (scenario I)				
11	3.6/ALL	This section should state that the dose basis ranged from 10 uSv/a to 100 uSv/a	Draft Safety Report section 3.3, states that values in Table 1 of the Draft Safety Guide were increased by a factor 10 to account for the conservatism in metal and concrete scenarios				
12	4.2/3-4	In general, countries should coordinate their regulatory strategy and implementation with their neighboring States, including their monitoring programmes for commodities, in order to avoid unnecessary nuisance alarms at boundary transfer points. The IAEA and other International nuclear material safety organizations should be used to harmonize the control of such commodities and the attendant transboundary interactions.	As originally worded, the sentence implied that measurement along the material flow path would not be necessary. The entrance of orphaned sources or related contaminated material either incidentally or deliberately would seem to necessitate some degree of monitoring or continuity of control measure to avoid such downstream contamination scenarios.				

13	4.2/8-9	appropriate techniques and equipment to ensure that detection levels are calibrated to detect materials having contamination at or above scope defining levels.	Original wording implies that detection equipment and techniques would result in nuisance alarms, because calibration would pick up levels below the SDLs. That is clearly counterproductive and constitutes poor guidance.				
14	4.6/5residues in the environment or vice versa. (Guidance....	This underscores the guidance that intervention exemption or exclusion levels are not routinely appropriate for clearance of commodities.				
15	4.7/5	...defining levels. This may occur in cases where water recycle from sanitation systems results in re-concentration of diluted agents. In such cases...	The text was unclear as to circumstances where SDL-compliant releases could result in nontrivial impacts.				
16	4.7/7	ADD SENTENCE: It should be acknowledged that what one Regulatory Authority establishes as the scope of application of these SDLs may not be acceptable to Member States to which these commodities may be exported. Again, the system of commodity control should be integrated and coordinated within and outside the borders of the Member State.	The risk that a neighboring country rejecting commodities, when the two regulatory implementations are inconsistent, should be explicitly recognized in the guidance.				