

From: Elizabeth Ullrich
To: Rich Fliszar
Date: Tue, Jul 17, 2007 10:45 AM
Subject: questions regarding 138807/138808 actions

Rich and Joe,

My apologies, I received these questions last month from the reviewer in our Decommissioning office, and did not do a letter to you. Can you let me know if you think you can get answers to these questions quickly, or not at all? I know you said you were no longer getting any responses from your contractor.

In the first question, we need to know why the contractor changed the value of the default room from 36 square meters to 100 square meters, in determining the thorium DCGL. the default value is 36 m-sqd, and the DCGL calculated using this value exceeds the 25-mrem in a year limit. If there is a justifiable reason for using 100 m-sqd, we need to know what that reason is and its basis.

Betsy

1. In reference to the document "New World Technology, Final Report, Picatinny Arsenal Radiological Remediation/Release Surveys and Sampling Project, Revision 4, September 27, 2006, Table 2 "Resrad-Build Input Parameters" of page 21 lists the room area parameter value as 36 m2. This value is used for all radionuclides of concern except for thorium-232 (Th-232). The room area parameter value used for Th-232 is 100 m2. Please justify the room area parameter value used for Th-232.

2. Page 23 of the Final Report, Revision 4, states that the input soil concentration value used for barium-133 (Ba-133) is 48 pCi/g. Table 5 of page 26 also states this input value. However, in Appendix JJ of the Final Report, the input file (RESRAD Version 6.3) on page 562, reports an input soil value of 6 pCi/g for Ba-133. Please clarify this discrepancy.

NOTE:

Table 5 of page 26 of the Final Report, Revision 4, states a resulting dose of 14.7 mrem/year. Using RESRAD Version 6.3, the NRC staff performed an independent dose analysis for Ba-133, using an input soil concentration value of 48 pCi/g for Ba-133 as well as using the other parameter values selected by the licensee as stated on page 23-25 of the Final Report. The dose for Ba-133 resulted in 16.64 mrem/year. NRC staff was not able to verify the 14.7 mrem/year dose result estimated by the licensee. However, it should be noted that the resulting dose of 16.64 mrem/year for Ba-133 meets the 25-mrem/year dose criterion as required under 10 CFR 20.1402.

CC: Joseph Fabiano

Mail Envelope Properties (469CD603.F9F : 12 : 55514)

Subject: questions regarding 138807/138808 actions
Creation Date Tue, Jul 17, 2007 10:45 AM
From: Elizabeth Ullrich

Created By: EXU@nrc.gov

Recipients

pica.army.mil
jfabiano CC (Joseph Fabiano)
rfliszar (Rich Fliszar)

Post Office

Route

pica.army.mil

Files	Size	Date & Time
MESSAGE	3131	Tuesday, July 17, 2007 10:45 AM

Options

Expiration Date: None
Priority: Standard
ReplyRequested: No
Return Notification: None

Concealed Subject: No
Security: Standard