



STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

Bob Holden, Governor • Stephen M. Mahfood, Director

www.dnr.mo.gov

August 23, 2004

Ms. Sharon Cotner
FUSRAP Program Manager
United States Army Corps of Engineers (USACE)
8945 Latty Avenue
Berkeley, MO 63134

**RE: Comments on the Derivation of Site-Specific DCGLs for the North County Structures,
St. Louis, Missouri, Public Review Draft, dated June 25, 2004**

Dear Ms. Cotner:

The Missouri Department of Natural Resources received the above reference document for review and comment. We have finished our review and are transmitting the following comments for your consideration and response.

1. To adequately assess the risk to human health, the department recommends a risk-based approach to calculate preliminary remediation goals for each radionuclide. Clean up, if necessary, should achieve a cumulative risk within the 1.0×10^{-4} to 1.0×10^{-6} carcinogenic risk range, based on reasonable maximum exposure. The contamination of the North County Structures poses building surface contamination scenarios. Currently the U.S. Environmental Protection Agency (EPA) has not published guidance to develop risk-based corrective action for such interior surficial contamination. Therefore, the department concurs that this situation may be best assessed using RESRAD-BUILD.
2. When using RESRAD-BUILD, it is important to consider that using a benchmark dose of 15 milliRem/year correlates to a total excess carcinogenic risk of 3.0×10^{-4} . The EPA has concluded that this should be the maximum dose limit for humans. With regard to this document, the department wishes to reiterate its December 23, 2003, comments concerning the use of the template data values. The use of the template data values provides for calculated Derived Concentration Guideline Levels (DCGLs), representative of a reasonable maximum exposure when using a dose level that slightly exceeds the normally acceptable risk range of 1.0×10^{-4} to 1.0×10^{-6} . With this in mind, please consider the comment below:
 - In the RESRAD-BUILD (version 3.1) calculations, SAIC used a value of 0.07 for the Air

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Ms. Sharon Cotner
Page Two

Release Fraction parameter and a value of 0.2 for the Removable Fraction parameter. Table 3-1, in Section 3.3 of the User's Manual for RESRAD-BUILD Version 3, lists template data values for key parameters used in the building occupancy and building renovation scenarios. In a December 8, 2003, electronic mail to the Missouri Department of Health and Senior Services, a representative of the Argonne National Laboratory recommended the use of these template data values. **Therefore, the department recommends the values of 0.357 for the Air Release Fraction and 0.1 for the Removable Fraction be used in a building occupancy scenario.**

3. The department would like to thank the USACE for the extended time granted for the public review of this important document. We request the opportunity to participate in responding to any public comments that are submitted to the USACE during this review. Public comment on these issues is important to both the USACE and the department.

Thank you for the opportunity to review and comment on this document. If you have any questions or need further clarification, please call me at (573) 751-3087. Address any written communication to Department of Natural Resources, Hazardous Waste Program, P.O. Box 176, Jefferson City, MO 65102-0176.

Sincerely,

HAZARDOUS WASTE PROGRAM

Darrick Steen, Environmental Engineer
Federal Facilities Section

DS:dd

cc: Mr. Jim Grant, Mallinckrodt/Tyco
Mr. Daniel Wall, U.S. Environmental Protection Agency, Region VII

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Author/Originator

Steen, Darrick

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MDNR

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Cotner, Sharon

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