



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

OSWER No. 9285.7-02 EP

August 16, 2004

MEMORANDUM

SUBJECT: "Supplemental Guidance for Dermal Risk Assessment," Part E of Risk Assessment Guidance for Superfund, Human Health Evaluation Manual (Volume I)

FROM: Michael B. Cook, Director /s/
Office of Superfund Remediation and Technology Innovation

TO: Superfund National Policy Managers, Regions 1 - 10
Regional Toxics Integration Coordinators (RTICs), Regions 1 - 10

PURPOSE

This memorandum transmits the "Supplemental Guidance for Dermal Risk Assessment" to the Regions for use in risk assessments at Superfund sites. The memorandum describes intended uses of this guidance and clarifies how additional information and data, relevant to the use of this guidance, will be made available by the U.S. Environmental Protection Agency (EPA).

BACKGROUND

This guidance is the fifth annex of the Risk Assessment Guidance for Superfund (RAGS), Volume I, addressing human health risk at Superfund sites. Parts A, B, C and D of Volume I addressed other aspects of human health risk. This dermal risk guidance was developed by a workgroup composed primarily of toxicologists and risk assessors from Regional Superfund programs, with additional participation from the Office of Research and Development (ORD) and the Office of Solid Waste and Emergency Response (OSWER). This guidance received internal EPA peer review in May 1997 and external peer review in January 1998 and again in January 2000. In December 2001 this guidance was released for public review and comment and placed on the following EPA Superfund risk assessment internet website:
<http://www.epa.gov/oerrpage/superfund/programs/risk/ragse/>.

Changes in response to the public comments received have been made in the final guidance, dated July 2004. This dermal risk guidance makes numerous references to ORD's 1992 Dermal Exposure Assessment (DEA) and is considered an extension of the principles and methods identified in DEA for risk assessments for Superfund sites.

IMPLEMENTATION

Human dermal exposures (and risk) to contaminated soil and water are assessed by separate methodologies in the guidance. Additional information is provided in the guidance describing these methodologies and associated assumptions and variables.

Some of the statutory provisions described in this memorandum or in the guidance released by this memorandum contain legally binding requirements. However, neither this memorandum nor the guidance substitute for those provisions or regulations. Nor is this memorandum or guidance document a regulation itself. Thus, it cannot impose additional legally-binding requirements upon EPA, States, Tribes, other federal agencies, or the regulated community. In some instances relating to a particular situation or circumstance this might not be the most relevant guidance to follow. Any decisions regarding the selection of a particular remedial or other response action on a CERCLA (Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended) site will be made based on the statute and regulations, and EPA decision-makers retain the discretion to adopt approaches on a case-by-case basis that may differ from this guidance where appropriate. In the future, EPA may modify this guidance.

FUTURE DEVELOPMENTS

The EPA Superfund Program and this workgroup will continue to track current developments of the science of human dermal risk assessments. ORD is also funding research which may ultimately allow additional contaminants to be addressed by the water model with acceptable levels of confidence. The EPA Superfund Program will post such developments on its above-identified website along with this guidance.

In addition, the methodology for addressing human dermal exposures to soil contamination contains "default" assumptions (Exhibit 3-4 of the guidance) on the fraction of a contaminant in soil which is absorbed into the body. The dermal workgroup will continue to assess peer-reviewed literature, including any literature brought to the workgroup's attention by outside parties, to determine when these default assumptions should be changed. Rather than revising the guidance, a current list of acceptable peer-reviewed dermal soil absorption values for soil will be posted on the above-identified EPA Superfund risk assessment website. Users of this guidance or other interested parties may bring such peer-reviewed values and other relevant information to the attention of the dermal workgroup by contacting a member of the workgroup. This website will contain a current list of the dermal workgroup members, their telephone numbers and e-mail addresses. Please contact a member of the workgroup with any questions about this guidance.

Future users of this guidance are advised to periodically visit this website to ensure that they have current information relating to this dermal risk guidance, including the effective predictive domain (EPD) for the water pathway, the dermal soil absorption values, and contact information for

the workgroup for implementation questions.

If you have questions about the information presented in this memorandum, please contact Dave Crawford at (703) 603-8891, or by e-mail at crawford.dave@epa.gov.

Attachment

Risk Assessment Guidance for Superfund, Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment, OSWER 9285.7-02EP)

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