



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

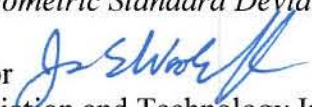
JUN 26 2009

OFFICE OF  
SOLID WASTE AND EMERGENCY  
RESPONSE

OSWER 9200.2-82

**MEMORANDUM**

**SUBJECT:** Transmittal of *Update of the Adult Lead Methodology's Default Baseline Blood Lead Concentration and Geometric Standard Deviation Parameters*

**FROM:** James E. Woolford, Director   
Office of Superfund Remediation and Technology Innovation

**TO:** Superfund National Policy Managers, Regions 1–10  
Regional Risk Leads, Regions 1–10

**Purpose**

The purpose of this memorandum is to transmit the document, *Update of the Adult Lead Methodology's Default Baseline Blood Lead Concentration and Geometric Standard Deviation Parameters*. This guidance document provides the technical basis for updating the default baseline blood lead concentration and default geometric standard deviation input parameters of the Adult Lead Methodology. This document is primarily intended for Regional risk assessors.

**Background**

The Adult Lead Methodology (ALM) is used to assess lead risks from the soil at non-residential Superfund sites. The baseline blood lead concentration input parameter of the ALM represents the geometric mean blood lead concentration in women of child-bearing age and the geometric standard deviation (GSD) input parameter is a measure of the inter-individual variability in these concentrations.

Default values for these input parameters were originally derived from an analysis of blood lead data for U.S. women 17–45 years of age, from Phase 1 (1988 to 1991) of the Third National Health and Nutrition Examination Survey (NHANES III) as well as consideration of available site-specific data on blood lead concentrations and GSDs. EPA prepared updated estimates for these two parameters in 2002, using data from Phase 1 and 2 (1988 to 1994) of

estimates for these two parameters in 2002, using data from Phase 1 and 2 (1988 to 1994) of NHANES III. The purpose of this report is to provide updated estimates for these parameters using data from the NHANES surveys that were conducted from 1999–2004.

### **Implementation**

This document provides updated values for the default blood lead concentration and the geometric standard deviation input parameters of the Adult Lead Methodology. However, recent scientific evidence has demonstrated adverse health effects at blood lead concentrations below 10 µg/dL down to 5 µg/dL, and possibly below. OSRTI is developing a new soil lead policy to address this new information. Until that soil lead policy is finalized, regional risk assessors and managers should consult with the Lead Committee of the Technical Review Workgroup for Metals and Asbestos (TRW) before applying these updated values for risk assessment.

If you have any questions, please contact me or have your staff contact Aaron Yeow at [yeow.aaron@epa.gov](mailto:yeow.aaron@epa.gov) or Michael Beringer at [beringer.michael@epa.gov](mailto:beringer.michael@epa.gov).

cc: Mathy Stanislaus, OSWER  
Barry N. Breen, OSWER  
Renée Wynn, OPM  
Brigid Lowery, CPA  
Debbie Dietrich, OEM  
Matt Hale, ORCR  
David Lloyd, OBLR  
John Reeder, FFRRO  
Carolyn Hoskinson, OUST  
Elliott Gilberg, OSRE  
David Kling, FFEO  
OSRTI Managers  
John Michaud, OGC  
Wendy Lubbe, Superfund Lead Region Coordinator, Region 7  
NARPM Co-Chairs