



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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OLEM Directive 9200.2-141 A

MEMORANDUM

SUBJECT: Release of the *Frequently Asked Questions About the Development and Use of Background Concentrations at Superfund Sites: Part One, General Concepts*

FROM: Brigid Lowery, Acting Director
Assessment and Remediation Division
Office of Superfund Remediation and Technology Innovation (OSRTI)

TO: Superfund National Program Managers, Regions 1-10

To assist those seeking information on key components of EPA Superfund guidance on contaminant background, EPA's Office of Superfund Remediation and Technology Innovation (OSRTI) compiled excerpts and citations from relevant guidance documents into a set of frequently asked questions (FAQs). This memorandum transmits the *Frequently Asked Questions About the Development and Use of Background Concentrations at Superfund Sites: Part One, General Concepts. Part One, General Concepts* answers basic questions about the definition and use of background data, including how a background dataset is generally developed and used in the different stages of site assessment and remediation. This document does not establish new guidance. *Part Two, Statistical Concepts* is still in development.

Background

The U.S. EPA has addressed the role of background concentrations in the Superfund site assessment and remediation processes in a variety of guidance documents:

- *Risk Assessment Guidance for Superfund, Part A* establishes the role of background in risk assessment under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and provides guidance on sampling and statistical analysis to assess background (US EPA, 1989, referred to as "RAGS A");
- *Statistical Methods For Evaluating the Attainment of Cleanup Standards, Volume 3: Reference-Based Standards For Soils and Solid Media* provides robust statistical procedures for designing sampling programs and conducting statistical tests to determine whether contamination in

remediated soils and solid media at Superfund sites attain site-specific background-based standards (US EPA, 1992c);

- *Role of Background in the CERCLA Cleanup Program* reiterates definitions established in RAGS A and sets current Superfund policy on background in risk assessment, risk management and risk communication (US EPA, 2002b, *Role of Background Guidance*);
- *Guidance for Comparing Background and Chemical Concentrations in Soil for CERCLA Sites* provides technical information on sample planning, collection methods, analyses and statistics; many recommendations are applicable to other non-dynamic media (US EPA, 2002a, *Soil Background Guidance*); and
- *Contaminated Sediment Remediation Guidance for Hazardous Waste Sites* provides sediment-specific recommendations, which take into consideration additional factors necessary for dynamic media, such as fate and transport (US EPA, 2005, *Sediment Remediation Guidance*).

When *Part Two, Statistical Concepts* is completed, these two FAQ documents will provide a centralized compilation of some key components of the EPA Superfund guidance on background.

Implementation

For questions regarding EPA Superfund Background Policy, please contact Matt Lambert (lambert.matthew@epa.gov, 703-603-7174).

Attachments:

Frequently Asked Questions About the Development and Use of Background Concentrations at Superfund Sites: Part One, General Concepts

cc:

James Woolford, Director, OLEM/OSRTI
Barry Breen, Acting Assistant Administrator, OLEM
Barnes Johnson, Director, OLEM/ORCR
Carolyn Hoskinson, Director, OLEM/OUST
David Lloyd, Director, OLEM/OBLR
Reginald Cheatham, OLEM/OEM
Cyndy Mackey, Director, OECA/OSRE
Paul Leonard, Acting Director, OLEM/FFRRO
Karin Leff, Acting Director, OECA/FFEO
John Michaud, Associate General Counsel, OGC/SWERLO
Barbara Hostage, Director, OLEM/PARMS
Jill Lowe, Region 3 Lead Region Coordinator
NARPM Co-Chairs
OHHRRAF members