Student Text

Basic Risk Assessment Training Applicable to Landfill Disposal Site Investigation, Cleanup, Management & Closure

Prepared for:

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January 19, 2006

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I. Agenda

9:00-9:50	Basic Toxicology Concepts: Chemicals, Effects & Exposure Routes
9:50-10:00	Break
10:00-10:50	Toxicity & Exposure Assessments in Regulatory Risk Assessment
10:50-11:00	Break
11:00-11:50	Introduction: What is Risk Assessment?
11:50-1:00	Lunch—On Your Own
1:00-1:50	The Risk Assessment Process Cont'd: Work Plans, Data Collection, & Site-Specific Health Risk Assessment
1:50-2:00	Break
2:00-2:30	The Cal/EPA IWMB and OEHHA Internal Process
2:30-2:40	Break
2:40-4:00	Practical Exercise

II. Goals for this Training Effort

The primary goals of this training effort are to:

- introduce IWMB staff to the basics of site risk assessment,
- define what a risk assessment is,
- determine when a site risk assessment should be used, and when one is not needed,
- identify what site specific data should to be collected, when it should be collected, and how it will be used in conducting a risk assessment,
- outline and present the internal Cal/EPA IWMB/OEHHA process for requesting a risk assessment review and how to go about conducting one, and;
- more clearly define how OEHHA toxicology and risk assessment staff may assist the IWMB with site specific risk assessment and related activities. Introduction

III. Course Content (Slides 1 through 124)

IV. Hands on Practical Exercise

Using a predefined site assessment practice scenario the instructor(s) will assist the participants in "walking through" the site characterization, risk assessment and decision making process as a class. Question and answer format will encourage participation and reinforcement of class content.

V. Additional Information Sources

OEHHA Air Toxic Hot Spots Guidance (for operating facilities emissions into air)
http://www.oehha.org/air/hot_spots/HRAguidefinal.html

DTSC Risk Assessment Guidance

http://dtsc.ca.gov/AssessingRisk/index.cfm

USEPA Risk Assessment Guidance for SuperFund

http://www.epa.gov/oswer/riskassessment/ragsb/index.htm

Agency for Toxic Substances & Disease Registry (ATSDR) Publications

http://www.atsdr.cdc.gov/publications.html

Office of Environmental Health Hazard Assessment Guidance for Preparing a Workplan for a Site-Specific Human Health Risk Assessment (attached)

Office of Environmental Health Hazard Assessment Guidance for Preparing a Site-Specific Deterministic Human Health Risk Assessment (attached)

Office of Environmental Health Hazard Assessment Scientific and Technical Guidance in Health Risk Assessment, Peer Review of Site-Specific Health Risk Assessments (attached)

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VI. Instructor Biography's

A. Jim Carlisle, DVM, MSc.

Jim Carlisle, a Senior Toxicologist, has been chief of the Applied Risk Assessment Section since joining OEHHA in 2000. For the preceding 10 years he was a toxicologist with DTSC, involved in waste classification, risk assessment for contaminated sites, and ecological risk assessment. He spent the first half of the 1980s working for the pesticide industry and the last half regulating them as a toxicologist for what is now DPR. He served on the faculties of Louisiana State University and Cornell University.

B. Karlyn Black Kaley, PhD, DABT

Dr. Karlyn Black Kaley received her PhD in Endocrinology from the University of California Davis and her B.S. in Chemistry and Biology from Willamette University in Salem, Oregon. She is a certified member and Diplomat of the American Board of Toxicology (DABT). For more than 15 years Dr. Kaley has worked as a human health scientist at the California Environmental Protection Agency. She is currently working as a staff toxicologist at the Office of Environmental Health Hazard Assessment (OEHHA) where she reviews site-specific risk assessments and assesses chemical toxicity. Prior to coming to OEHHA she worked as a toxicologist for the Department of Toxic Substances Control. She also previously worked as an Air Pollution Research Scientist and Statewide Particulate Matter Planning and Policy Liaison at the Air Resources Board. Dr. Kaley's expertise includes general toxicology, risk assessment, chemical review, and risk communication.

C. Ned Butler, PhD, DABT

Dr. Ned Butler received his PhD from the University of Michigan. He worked from 1988 until 2000 with the California Department of Toxic Substances Control. Since then he has worked for the Office of Environmental Health Hazard Assessment. Since 1988 he has worked on many sites and a number of projects involving the assessment of risk from chemicals from various sources.