

ARBCA

**ARBCA
An In-Depth
Training Program**

**Birmingham, Alabama
January 17-18, 2006**

**Risk Assessment &
Management Group, Inc.
5433 Westheimer, Suite 725
Houston, TX 77056
Ph: (713) 784-5151
Fax: (713) 784-6105**

**Participants will earn 16 hrs of
Continuing Education Units
towards Alabama's
P.G. Registration**

January 17-18, 2006

Overview

The Department has developed a risk-based corrective action guidance manual which outlines procedures for making risk-based corrective action decisions at sites in Alabama. This document, known as the Alabama Risk-Based Corrective Action (ARBCA) Guidance Manual - final draft, September 2005, was developed to establish a consistent framework for risk-based decision making across all of the Department's cleanup programs, including those regulated under the State's Hazardous Waste Program, the Brownfield Redevelopment and Voluntary Cleanup Program, and the Underground Storage Tank Program.

To help implement the process, Risk Assessment & Management (RAM) Group has developed (i) a comprehensive training program, and (ii) ARBCA computational software.

This training program presents an in-depth understanding of the ARBCA process, the computational software and its application to a variety of sites. Throughout the course, site-specific examples will provide practical insights. The effect of site hydro-geological conditions on risk management decisions will be presented.

The course includes:

- *The technical basis and objective of the ARBCA process,*
- *Data needs to implement ARBCA process,*
- *Software to perform RM-1 and RM-2 calculations, and*
- *Evaluation of soil-vapor intrusion pathway.*

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The course instructor is nationally known for his teaching skills and has presented several courses in Alabama and received excellent reviews. Mr. Chip Crockett or his designee from the Alabama Department of Environmental Management (ADEM) will be present for the course and will answer questions regarding the ARBCA program.

Who Should Attend

The course will benefit professionals from industry, consulting, and regulatory agencies who perform site investigations; oversee or review health risk assessments for remediation of contaminated sites; establish and negotiate environmental cleanup levels. The curriculum includes a comprehensive review of technical, regulatory, and state-of-the-practice issues related to this ARBCA.

Location

The training will be held in Room 4G at the Alabama Power Corporate Headquarters at 600 18th Street N in Downtown Birmingham, AL, located at the intersection of 18th Street N and 6th Avenue N. Public parking is available in lots on 18th Street between 5th and 6th Avenue N and on 7th Avenue North between 18th and 19th street.

Schedule

January 17: 09:30 a.m. – 05:00 p.m.
January 18: 08:00 a.m. – 05:00 p.m.

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January 17

- 09:30 Introductions & Course Objectives
- 09:45 ARBCA Process
 - Key Elements
 - Impacts of Corrective Action
- 10:15 Exposure Assessment
 - Site Conceptual Exposure Models
 - Exposure Domain
 - Estimation of Dose
- 11:15 Break
- 11:30 Toxicity Assessment
 - Carcinogens
 - Non-carcinogens
 - Different Routes of Exposure
- 12:00 Lunch
- 01:00 Computation and Presentation of Risk
 - Carcinogens
 - Non-carcinogens
- 02:00 Hands-on Exercise
- 02:15 Development of Target Levels
 - Preliminary Screening Values (PSVs)
 - Risk Management (RM)-1
 - RM-2
- 03:00 Break
- 03:15 Indirect Routes of Exposure and Fate & Transport Consideration
 - Equilibrium Concentrations
- 05:00 Adjourn for the day

January 18

- 08:00 Recap of Day 1
- 08:30 Fate & Transport Models in ARBCA
 - Ambient Air and Indoor Air
 - Emission from Soil and Groundwater
 - Transport in Groundwater
 - Mixing in Surface Water Bodies
- 10:00 Break
- 10:15 Data Needs for ARBCA evaluations
- 11:00 ADEM Question & Answer Session
- 12:00 Lunch
- 01:00 Preliminary screening level evaluation
 - Site Characterization
 - Comparison with PSVs
- 01:30 Risk Management -1 Evaluation
 - Comparison with RM-1 target levels
- 02:00 Risk Management-2 Evaluation
 - Work Plan for RM-2
 - Comparison with RM-2 target levels
- 02:45 Break
- 03:00 Representative Concentrations
- 03:30 Evaluation of Vapor Intrusion Pathway
 - Data Needs and Methodology
 - Current State of Practice
- 04:00 Risk Management Plans
- 04:30 Demonstration of Computational Software
- 05:00 Course adjourns

Lead Instructor

The primary instructor for the course will be Dr. Atul M. Salhotra, Founding Principal and Director of the Risk Assessment & Management Group, Inc. (RAM Group).

Dr. Salhotra is one of the original nine ASTM (American Society for Testing and Materials) approved trainers for the Risk Based Corrective Action Program. He has conducted over 115 continuing education and training courses for 18 different state agencies, several trade organizations and universities, and is actively assisting several states in their efforts to develop customized RBCA programs.

Registration Fee

The course fee is \$695. Cancellation fee is \$100 if canceled within 5 working days of the course. Substitutions are acceptable. Second-time attendees of the ARBCA training course pay a reduced fee of \$650.

Register as soon as possible using the enclosed registration form. Class size is limited to 30 participants. RAM Group reserves the right to cancel the course if the number of participants is less than 8.

Participants are requested to bring calculators and the Alabama Risk-Based Corrective Action Guidance Manual - final draft, September 2005 with them. (Copies of this Guidance Manual will be available for a copying charge of \$40.)