

Combined Oklahoma Risk Based Corrective Action (ORBCA) and Kansas Risk Based Corrective Action (KRBCA) 2-Day Course

November 4 & 5, 2026 | 8:00 a.m. – 5:00 p.m.

*Student Center and Campus Events, Oklahoma State University – Oklahoma City
900 N. Portland Ave, Oklahoma City, OK 73107*

PROFESSIONAL DEVELOPMENT HOURS

Participants will earn 16 continuing education credits towards the following programs:

- Oklahoma Remediation Consultant License
- Professional Engineer (PE) and Professional Geologist (PG) requirements, as applicable

Please call us for specific state requirements.

COURSE OVERVIEW

This intermediate to advanced level comprehensive two-day applied course presents an in-depth discussion of the application of risk assessment (RA) and risk-based corrective action (RBCA) for the management of contaminated sites with special emphasis on ORBCA and KRBCA. Several state and federal programs have developed guidance documents and tools to implement RA. However, there is wide variability in the application, understanding of, and acceptance of this tool.

Site specific RA is an important element of the cleanup programs for Illinois, Kansas, Missouri, Oklahoma, and USEPA as described in the following guidance documents.

1. **Oklahoma RBCA Guidance, July 2008**
<https://oklahoma.gov/content/dam/ok/en/occ/documents/pst/technical-forms/ORBCA%20Guidance.pdf>
2. **Departmental Missouri RBCA Guidance, April 2006**
<https://dnr.mo.gov/waste-recycling/business-industry/guidance-technical-assistance/missouri-risk-based-corrective-action-mrbca/departmental>
3. **Missouri RBCA for USTs, October 17, 2013**
<https://dnr.mo.gov/document-search/missouri-risk-based-corrective-action-mrbca-process-petroleum-storage-tanks-oct-17-2013>

4. Kansas R BCA for Petroleum Storage Tank Sites, July 2011
<https://www.kdhe.ks.gov/1018/Risk-Based-Corrective-Action>
5. Risk-Based Standards for Kansas, July 2021
<https://www.kdhe.ks.gov/DocumentCenter/View/15467/Risk-based-Standards-for-Kansas-6th-Version-PDF-July-2021?bidId=>
6. Title 35, Part 742,TACO , Illinois EPA, September 2025
<https://pcb.illinois.gov/documents/dsweb/Get/Document-38408/>
7. USEPA Regional Screening Levels (RSL) , November 2024
<https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables>

This training program presents an in-depth understanding of the fundamental concepts, regulatory framework, quantitative evaluation of the RA process. It also presents the assumptions and limitations of the process and its application to a variety of sites, particularly LUST sites. Successful completion of the course will result in better understanding and application of RA for the management of contaminated sites.

WHO SHOULD ATTEND

This course will benefit professionals from industry, consulting, and regulatory agencies who:

- Perform site investigations
- Oversee or review human health risk assessments at contaminated sites
- Establish and negotiate multimedia cleanup levels at contaminated sites
- Work with LUST sites in Oklahoma and Kansas

COURSE HIGHLIGHTS

- Technical basis & objective of risk assessment
- Fundamentals of toxicity
- Fundamentals of risk assessment
- Development of site conceptual exposure model (SCEM)
- Forward and backward modes of risk assessment
- The process of developing site-specific risk-based target levels for various tiers
- Data needs to develop and implement the risk-based target levels
- Evaluation of the indoor vapor intrusion and groundwater protection pathway
- Discussion of relevant federal and state guidance documents (ORBCA, RSLs, MRBCA, KRBCA, VISL and TACO)
- A comprehensive case study

LEARNING OBJECTIVES & BENEFITS

After attending this course, participants will be able to:

- Develop risk-based work plans to collect the right quality and quantity of data
- Perform RA and state specific RBCA evaluations
- Understand Tier 1 screening levels and develop Tier 2 levels
- Explain and negotiate the results of RA
- Understand the inherent variability and uncertainty in the results of a RA
- Understand the need for Activity and Land Use Limitations to manage contaminated sites

Hands-on calculations and real world examples will improve the understanding of the concepts discussed.

Participants are requested to bring calculators.

TRAINING LOCATION & REGISTRATION

Student Center and Campus Events
Oklahoma State University – Oklahoma City
900 N. Portland Ave
Oklahoma City, OK 73107

See accompanying registration form. We reserve the right to postpone the course.



LEAD INSTRUCTOR

ATUL M. SALHOTRA, Ph.D.

SENIOR CONSULTING PROFESSIONAL

Atul M. Salhotra, PhD, is a recognized expert in the cost-effective management of contaminated sites. With more than 40 years of consulting experience, he has developed risk-based decision-making programs for 17 states, including Kansas, Missouri, and Oklahoma.

Dr. Salhotra is the lead author, project manager, and developer of Risk-Based Corrective Action (RBCA) programs for numerous states (Kansas, Missouri, Nebraska, and Oklahoma) and the U.S. Air Force in Europe. As one of the original American Society for Testing and Materials approved trainers for RBCA, he has conducted training courses throughout the U.S. and across the globe. He is well versed in the site-specific application of risk assessment, evaluation of indoor vapor intrusion, natural attenuation, and fate and transport modeling for the cost-effective management of sites.

Additionally, he has provided litigation support on numerous high-profile cases and performs third-party review of consulting reports, as well as cost-effective management of liabilities due to contaminated sites.

Connect with Dr. Salhotra for more information, email amsalhotra@edge-es.com.

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NOVEMBER 4, 2026 – DAY 1

8:00 – Introductions & Course Objectives

- Site Assessment, Risk Assessment, and Risk management
- Technical and Regulatory History of Risk Assessment & RBCA
- State and Federal Regulatory Frameworks (RA vs. Risk Based Corrective Action)
- Key Elements of KRBCA for UST Sites and RSK non-UST Sites and ORBCA
- Overall RBCA Framework

10:15 – Exposure Assessment

- Exposure Model & Elements of a complete Exposure Pathway
- Exposure Domain
- Direct and Indirect Exposure Pathways (EP)
- Application of Fate and Transport Models to Evaluate Indirect EP
- Estimation of Representative Concentration
- Estimation of Dose
- Development of SCEM

11:15 – Break

11:30 – Toxicity Assessment

- Carcinogenic Adverse Health Effects
- Non-carcinogens Adverse Health Effects
- Mutagenic Chemicals
- Chronic and Sub-chronic Toxicity
- Dermal, Inhalation, and Ingestion Toxicity

12:00 – Lunch

1:00 – Computation and Presentation of Risk

- Carcinogens Risk
- Non-carcinogenic Risk
- Acceptable risk levels
- Cumulative Risk

2:00 – Break

2:15 – Development of Tier 1 and Tier 2 Risk-Based Target Levels (RBTL)

- Direct Routes of Exposure
- Data Required to Calculate RBTL for Direct Routes of Exposure

3:00 – Break

3:15 – Indirect Routes of Exposure and Fate & Transport Consideration

- Equilibrium Concentrations
- Data Required to calculate RBTL for Indirect Routes of Exposure

5:00 – Adjourn for the day

8:00 – Recap of Day 1

8:30 – Groundwater and Surface Water Protection

- Policy Choices (ORBCA and KRBCA)
- Point of Compliance/Demonstration
- MCLs vs. Tap Water Screening Level
- Surface Water Standards

10:00 – Break

10:15 – Fate & Transport Models in KRBCA & ORBCA

- Ambient Air and Indoor Air
- Emission from Soil and Groundwater
- Transport in Groundwater
- Mixing in Surface Water Bodies

12:00 – Lunch

1:00 – Available Options to Evaluate Vapor Intrusion (VI) Pathway

- Steps to evaluate Vapor Intrusion
- Indoor Air Concentration Measurement
- Measurement of Soil Vapor, Soil and Groundwater Concentrations, and Attenuation Factor Approach

2:00 – Break

2:15 – Tiered Approach to Risk Assessment

- Rationale for Tiered Approach
- Consideration of TPH concentrations in RBCA programs

3:15 – Break

3:30 – Plume Stability and Summary of Course

- Plume Stability
- Documentation
- Software

5:00 – Course Adjourn

Throughout the course site-specific examples and calculations will help provide practical relevance to the material presented.