

# ITRC Implementation Workshop

## *Risk Assessment*

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# Starting Point

## ■ Risk Assessment

- Abundant resources exist
- Continues to evolve
- Default approaches, scenarios and parameters are often defined
- Challenges for project managers and decision makers when site-specific risk assessments are proposed
  - Need scientific and defensible rationale when default approaches, scenarios and parameters are not applicable

# RISK-3 Document

- Decision Making at Contaminated Sites: Issues and Options in Human Health Risk Assessment
  - [www.itrcweb.org/risk-3](http://www.itrcweb.org/risk-3)
- Provides support for site-specific approaches, scenarios and parameters
- Useful for state and federal project managers, consultants and industry and community members
- Different from existing ITRC and other risk assessment resources

# Web-based Document Content

- Addresses key issues and potential solutions
  - Planning
  - Data evaluation
  - Toxicity
  - Exposure assessment
  - Risk characterization
- Includes a discussion of risk management and risk communication as they relate to risk assessment

# Web-based Document Content

- Each section presents
  - Brief overview of the topic area addressed
  - Key issues organized by general topic area
  - Potential options for addressing the issue
  - Links to specific references associated with the discussion of each option
  - Links to additional resources and tools for each topic area



# Decision Making at Contaminated Sites

## Issues and Options in Human Health Risk Assessment

Contents

Glossary

Expand Topic

Previous Topic

Next Topic

Print Topic

Online Training

Open Full Document

Feedback

- 1. Introduction
- 2. Use of Risk Assessment in Site Cleanup
- 3. Planning
  - 3.1 Scoping and Technical Approach
  - 3.2 Conceptual Site Model
  - 3.3 Data Collection Program
  - 3.4 Resources and Tools
- 4. Data Evaluation
  - 4.1 Data Gaps
  - 4.2 Data Usability
  - 4.3 Data Reduction Concerns
  - 4.4 Data Visualization and Analysis
  - 4.5 Data Screening and Chemical Selection
  - 4.6 Resources and Tools
- 5. Toxicity**
  - 5.1 Sources of Toxicity Values
  - 5.2 Effects of Toxicity Value Uncertainty on Risk Management Decisions
  - 5.3 Resources and Tools
- 6. Exposure Assessment
- 7. Risk Characterization
- 8. Risk Management
- 9. Risk Communication
- 10. Tribal and Public Stakeholder Perspective
- 11. References

## 5. Toxicity

Chemical-specific toxicity values are frequently reassessed and are updated over time as new information becomes available. For some chemicals, consensus is established on the appropriate toxicity values to be used. For others, however, agencies have differing toxicity values. Selecting toxicity values without understanding how they were derived can lead to over- or underestimates of potential risks associated with chemical exposure, which may result in risk management decisions that are not defensible or protective of human health.

This chapter discusses and provides guidance on key issues associated with conducting toxicity assessments for risk assessment. The key issues are organized around the following topic areas:

### Sources of Toxicity Values

- [Choosing Among Toxicity Values from Multiple Sources](#)
- [What To Do When a Toxicity Value is Not Readily Available](#)
- [Assessing Toxicity of Chemical Groups/Mixtures](#)
- [Assessing Toxicity of Mutagenic Carcinogens](#)
- [Addressing Lead Toxicity](#)

### Effects of Toxicity Value Uncertainty on Risk Management Decisions

- [Understanding Uncertainty in Toxicity Values](#)

A discussion of toxicity value derivation and uncertainty as they relate to risk management decisions is provided in [Appendix B](#).

### 5.1 Sources of Toxicity Values

Differences in regulatory agency policies for risk assessments, including the toxicity values used by the agencies, can result in large variations in decision outcomes (ITRC 2008). An uninformed selection of a toxicity value may result in inadequate protection of human health, overly conservative risk management decisions, or rejection of the risk

# Potential Impacts by Sector

EXPECTED USER GROUP	INTENDED USE	BENEFIT TO BE RECEIVED BY USERS
State regulatory program managers	Support review of site-specific risk assessments	<ul style="list-style-type: none"> <li>• More clarity and confidence in implementation and review</li> <li>• Compilation of practical options and links to related resources and tools</li> <li>• Ease of use to find information</li> </ul>
Consultant project managers	Determine appropriate options	
Industry project managers	Support work planning and review of risk assessments	

# Implementation Objectives

- Increase awareness of the RISK-3 document, including understanding its format and content
  - Identify
    - State programs
    - Sites
    - Groups
    - Individuals
- ...that would benefit from using the RISK-3 document for their risk assessments



# Small Group Discussion

- Share ideas for
  - state or other agency guidance that would benefit by incorporating or referencing this ITRC document
  - encouraging the use of the document for specific sites and by target users
  - other uses or benefits of the document outside of specific guidance
  - provide web-link to the document

# Help Us Build ITRC Success

- Identify target users
- Promote document use to colleagues by sharing document information sheet
- Promote free web-based document and online training
- Report document use to ITRC

**What action are you going to take?**

# Questions

- John McVey, Team Leader
  - South Dakota Petroleum Release Compensation Fund
  - [John.mcvey@state-sd.us](mailto:John.mcvey@state-sd.us)
  - 605-773-5488
  
- Claudio Sorrentino, Team Leader
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  - 916-255-6656

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