

Advanced RESRAD-ONSITE & RESRAD-OFFSITE, RESRAD-BIOTA, and RESRAD-RDD Training Workshop

Conducted at
Argonne National Laboratory
Argonne, IL
September 23-27, 2019

Day 1	<i>Advanced RESRAD-ONSITE & RESRAD-OFFSITE</i>
8:45 – 9:00	Registration
9:00 – 9:30	Kd Estimate Options in RESRAD-ONSITE (Water concentrations, Solubility Limit, Root uptake)
9:30 – 10:00	Hands-on
10:00 – 10:15	Break
10:15 – 10:45	Mass Balance Model in RESRAD-ONSITE
10:45 – 11:15	Hands-on
11:15 – 11:45	Document Overview
11:45 – 1:00	Lunch
1:00 – 2:00	Inhomogeneous Contamination in RESRAD-ONSITE (Layered, hotspots, shape factor and area factors)
2:00 – 3:00	Hands-on
3:00 – 3:15	Break
3:15 – 4:45	Hands-on RESRAD-OFFSITE (Deterministic and Sensitivity)

Day 2	
8:30 – 9:00	Source Term Model
9:00 – 9:50	Hands-on Source Release Exercises
9:50 – 10:00	Break
10:00 – 10:30	Measurement of Kd, etc.
10:30 – 10:55	Hands-on Submerged Source
10:55 – 11:05	Break
11:05 – 11:30	Hands-on Flux input/output
11:30 – 12:00	Hands-on Groundwater transport
12:00 – 1:00	Lunch
1:00 – 2:00	Hands on Probabilistic/Sensitivity Analysis
2:00 – 2:15	Break
2:15 – 3:15	Hands on Probabilistic/Sensitivity Analysis continued
3:15 – 3:30	Break
3:30 – 4:45	Application of Probabilistic Analysis (Area Factors, Fence-line Analysis)

Day 3	RESRAD-BIOTA
8:30 – 9:15	Introduction and Overview of RESRAD-BIOTA
9:15 – 10:15	Demonstration of RESRAD-BIOTA
10:15 – 10:30	Break
10:30 – 11:15	Hands-on Problem 1 and Review (Screening Analysis)
11:15 – 12:00	Technical Basis – Derivation of the DOE Graded Approach Methodology
12:00 – 1:00	Lunch
1:00 – 2:00	Hands-on Problem 2 and Review (Site-specific Screening Analysis)
2:00 – 3:00	Principles of Ecological Risk Assessment
3:00 – 3:15	Break
3:15 – 4:00	Hands-on Problem 3 and Review (Site-specific Analysis)
4:00 – 4:15	Sensitivity Analysis
4:15 – 4:45	Hands-on Problem 4 and Review (Sensitivity Analysis)
4:45	Adjourn for Day 3
Day 4	
8:30 – 9:00	Technical Basis – Derivation of Dose Conversion Factor for Specific Organism Geometries
9:00 – 9:15	Organism Editor and Wizard Feature
9:15 – 10:15	Case Study I and Hands-on Problem 5
10:15 – 10:30	Break
10:30 – 11:30	Case Study II and Food Chain/Web Model
11:30 – 12:00	Wildlife Transfer Factors Database and ICRP RAPs and Dose Coefficients
12:00 – 1:00	Lunch

RESRAD–RDD	
Day 4	
1:00 – 1:15	Introduction
1:15 – 2:00	Protective Action Decisions
2:00 – 2:30	Methodology
2:30 – 2:45	Break
2:45 – 3:15	RESRAD–RDD Demo
3:15 – 4:00	Hands–on
4:00 – 4:45	Group A, Access During Emergency Response
Day 5	
8:30 – 9:30	Group B, Early-Phase Protective Actions
9:30 – 10:30	Group C, Relocation
10:30 – 10:45	Break
10:45 – 11:45	Group D, Temporary Access
11:45 – 1:00	Lunch
1:00 – 2:00	Group E, Transportation
2:00 – 3:00	Group F, Release of Property
3:00 – 3:15	Break
3:15 – 4:15	Group G, Food Consumption
4:15 – 4:45	Review and Discussion