

3-Day Problem Characterization and Risk Remediation Analysis Training --Featuring the FRAMES 1.5/2.0, MEPAS[®], and SUM³ Software packages with other related tools.

In this course you will learn concepts and methodologies for evaluating health impacts and remediation alternatives for environmental problems and issues. The sessions begin with defining the problem and characterizing the site. With this information you will then convert the problem into a conceptual site model. You will analyze both health/environmental impacts and remediation alternatives that will be applied to evaluate the environmental problem.

You will integrate and evaluate contaminant source, fate/transport through environmental media for multiple exposure routes to achieve health consequences for radionuclide and chemicals, using the MEPAS[®] software package.

The training is divided into three days.

- ☞ Day 1 will focus on FRAMES, Source Term Models, Waterborne Transport, Airborne Transport, Calibration and Hands On experience.
- ☞ Day 2 builds on these concepts, and introduces among other things Sensitivity and Uncertainty Analysis, and Risk Communication.

Included in the training cost is an optional ☞Day 3 with three sessions: Bringing Models into FRAMES, Working with Specifications and wizards for Integrating Models into FRAMES 2.0.

Register for an upcoming training session now featuring FRAMES 1.5/2.0 and MEPAS 4.1.12!

Attendance is limited to 12 participants and early registration is recommended. To register, complete the following registration form for each attendee and return by mail or fax:

Battelle Attn: Gariann Gelston
Pacific Northwest National Laboratory
MS K7-97
P.O. Box 999
Richland, WA 99352
Phone: (509) 372.6060
Fax: (509) 375.5921
Email: Gariann.Gelston@pnl.gov

WHEN: June 29-July 1, 2004
Tuesday the 29th, 9am to 5pm
Wednesday the 30th, 8am to 5pm
Thursday the 1st, 8am to 4 pm

WHERE: Richland, Washington

COST per Person: 3 days \$1495
2 days \$995
3rd day only \$695

Covers all Training, Written Materials and Equipment.

For additional information,
<http://mepas.pnl.gov/FRAMESV1/workshop.html>

Payment Fee: Payment is acceptable in the form of a major credit card or check.

Name: _____

Title: _____

Company/Affiliation: _____

Address: _____

Phone: _____

Fax: _____

E-mail: _____

Area of Expertise/Interest: _____

The following information is for badging purposes and is requested for all attendees and substitutes. If you are a non-US citizen, additional information will be requested.
US Citizen: Yes No

Date of Birth: _____

Social Security Number: _____

- Specify: Attending all three days
 Attending just June 29th & 30th
 Attending just July 1st

For our planning purposes, please indicate your training level: Basic Advanced

Additional information on lodging, schedule, and course location will be sent upon receipt of the registration form. If you are unable to attend, substitutions are welcome. The training registration is non-refundable. Training materials will be sent to individuals that are unable to attend alternate training sessions or send a substitute.

You will learn several environmental modeling software tools in this course.

FRAMES 1.5/2.0 (Framework for Risk Analysis in Multimedia Environmental Systems) is intended to provide a forum from which various models can interact with each other and facilitate a “plug-and-play” atmosphere to site assessments. The FRAMES software is Windows™ based and was created with many features to aid the user in conducting assessments. The FRAMES platform is a key tool that can be used effectively to analyze environmental contaminant scenarios, benchmark models, and communicate scenarios and results to others. These features serve to enhance the user’s interaction with the underlying scientific models used in many assessments.

MEPAS® 4.1.12 (Multimedia Environmental Pollutant Assessment System) integrates and evaluates contaminant release and migration through multiple environmental media and estimates human health impact from multiple exposure pathways for chemical and radioactive contaminant release.

SUM³ (Sensitivity /Uncertainty Multimedia Modeling Module) was designed to allow statistical analysis using the existing deterministic models available option in FRAMES. SUM³ randomly samples input variables and preserves the associated output values in an external file available to the user for evaluation. This enables the user to calculate deterministic values with variable inputs, producing a statistical distribution of results. Statistical characterization can be based on distributions, correlations and a new method using equations!

Learn a Proven Method for Analyzing, Environmental
Fate/Transport, Health Impacts, and Remediation Options

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Evaluating Problem Characterization, Fate/Transport, and Human Health Impacts for Environmental Problems

A Comprehensive
Approach Including
“Hands-On”
Software Sessions

