

## **Kulbersh, Michael R NAE**

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**From:** seview@seview.com  
**Sent:** Thursday, September 09, 2010 10:58 PM  
**To:** Kulbersh, Michael R NAE  
**Subject:** MA LSP Course Number: 1385 - Additional Instructor

### **SESOIL and AT123D Massachusetts Training Seminar MA LSP Course Number: 1385**

8 Technical non-DEP Continuing Education Credits  
September 24, 2010  
8:00 AM to 5:00 PM

At the Westford Regency Inn and Conference Center  
219 Littleton Road, Westford, MA 01886

#### **Instructor change:**

**Michael J. Barden** has been added as an instructor for the SESOIL and AT123D training seminar. Michael is a nationally recognized expert on the SESOIL model and is co-author of "The New SESOIL User's Guide." He was responsible for the development of the default NR 720 soil cleanup objectives for the Wisconsin Department of Natural Resources (WDNR). As a senior hydrogeologist with the WDNR he was also responsible for application of risk-based corrective actions, and use of natural attenuation as a remediation option. Mr. Barden was co-chair of the task group responsible for developing the ASTM guidance for remediation by natural attenuation and a member of the National Research Council (NRC) committee on intrinsic remediation. He has worked with and lectured extensively on SESOIL, AT123D and U.S. EPA's Soil Screening Guidance.

Michael is President and Principal Geologist with Geoscience Resources Inc. in Albuquerque, New Mexico. He provides consulting services in hydrogeologic evaluation, environmental biogeochemistry, soil and groundwater modeling, and risk assessment. His project experience ranges from USTs to Superfund sites. He has developed and provided instruction for numerous training courses for professional organizations and state regulatory agencies.

This course will cover the use of the SESOIL and AT123D models. These models were used by the Massachusetts Department of Environmental Protection (MassDEP) to develop default soil cleanup objectives. Consultants can use these models to develop site-specific soil cleanup objectives. Focus will be given to the use of SESOIL and AT123D in the SEVIEW transport and fate modeling software.

#### **Additional Instructors:**

##### **Robert Schneider, M.S., P.G., President**

*Environmental Software Consultants, Inc., Madison, WI*

Mr. Schneider has been in the environmental groundwater consulting industry since 1982. He is the sole designer and developer of the SEVIEW modeling software that includes enhanced versions of the SESOIL and AT123D models. SEVIEW is used by regulators and consultants around the world, including the MassDEP. It was selected as the best tier 2 modeling software available by an independent review. In 1992 he performed SESOIL modeling for the Wisconsin Department of Natural Resources. The results were used to establish baseline regulatory soil cleanup standards protective of groundwater quality. He has presented papers on modeling in the United States and the European Union. Mr. Schneider has conducted numerous training seminars for consultants and regulatory agencies. He is a registered professional geologist in Wisconsin.

**Michael Kulbersh, LSP, P.HG., C.G./P.G**

*U.S. Army Corps. of Engineers, MMR, MA*

Mr. Kulbersh assisted in the design of the multiple SESOIL source version of AT123D in SEVIEW. Mr. Kulbersh has over 20 years of experience in the environmental arena as a geologist/hydrogeologist for CDM Inc./Stone and Webster (Shaw Group Inc.) and most recently at the U.S. Army Corp of Engineers. Mr. Kulbersh is a Licensed Site Professional (LSP) in Massachusetts and a registered geologist in Maine, New Hampshire and Pennsylvania and is also a registered hydrogeologist with the American Institute of Hydrology (AIH). Additionally, Mr. Kulbersh developed and has presented (non-DEP Technical) Course 1290 - Groundwater Flow and Contaminant Transport to the LSP community in June 2005.

**MORNING SESSION**

7:30 - 8:00 Registration & continental breakfast

8:00 - 9:30 **Michael Barden**  
*President, GRI*  
Introduction to vadose zone processes  
- Soil moisture movement  
- Contaminant migration

9:30 - 10:00 **Robert Schneider**  
*P.G., President, ESCI*  
Introduction to vadose zone processes  
- Soil moisture movement  
- Contaminant migration  
Setting up SESOIL  
- Climatic parameters  
- Chemical parameters  
- Soil parameters  
- Application parameters  
Running SESOIL

10:00 - 10:15 Break

10:15 - 12:00 **Michael Barden**  
*President, GRI*  
**Robert Schneider**  
*P.G., President, ESCI*  
SESOIL Results  
- SESOIL sub-models  
- Hydrologic cycle  
- Pollutant cycle  
- Washload cycle  
- Calibration  
- Soil moisture  
- Contaminant transport  
Development of site-specific cleanup objectives

12:00 - 1:00 Lunch Break

**AFTERNOON SESSION**

1:00 - 1:45 **Michael Barden**  
*President, GRI*  
Introduction to groundwater processes  
- Groundwater movement  
- Contaminant migration

1:45 - 3:00 **Robert Schneider**  
*P.G., President, ESCI*  
Setting up AT123D  
- Links to SESOIL and BIOSCREEN  
Running AT123D  
AT123D results  
- Area report  
- Centerline report  
- Point of compliance report  
Development of site-specific cleanup objectives

3:00 - 3:15 Break

3:15 - 4:15 **Michael Barden**  
*President, GRI*  
Development of EPA Soil Screening Levels  
- Equilibrium partitioning approach  
- Dilution attenuation factor  
- MassDEP (SESOIL/AT123D)  
- MCP leaching based values  
- Derivation of leaching based concentrations  
- MCP site-specific leaching based number  
- Model parameters

4:15 - 5:00 **Michael Kulbersh**  
*LSP, P.HG., C.G./P.G, USACE*  
Case Study - MMR - Firing Range  
- Single SESOIL source linked to AT123D  
- Multiple SESOIL sources linked to AT123D

The cost of this one-day course is \$350. To register complete and print this [Registration Form](#) and send it including payment to:

Environmental Software Consultants, Inc.  
P.O. Box 2622  
Madison, WI 53701-2622

If you're paying via credit card you can print and fax the form to: 608 285-5131

Call ESCI at 608 240-9878 if you have any questions. You may also submit your questions to ESCI via e-mail at [training@seview.com](mailto:training@seview.com).

Visit [www.seview.com](http://www.seview.com) for more information on the SEVIEW modeling software.