

DISPERSION MODELING

October 16-18, 2013

Las Vegas, NV

Course Objectives

After completing this course, participants will be able to:

1. Identify the required input files for AERMOD and CALPUFF
2. Operate the preprocessors for AERMOD and CALPUFF
3. Explain where to locate data for preprocessors
4. Interpret output files generated using AERMOD and CALPUFF
5. List the advantages and the limitations of AERMOD and CALPUFF
6. Describe the two predominant regulatory air dispersion models (AERMOD and CALPUFF) and their appropriate applications
7. Explain how modeling is used in stationary source permitting
8. Describe how federal land management agencies and states utilize models

Instructional Team

Jesse The, Lakes Environmental Software - Lead Instructor
 Cristiane The, Lakes Environmental Software - Lead Instructor
 Vasant Rajagopalan, Clark County Air Quality Planning Division - Dispersion Modeler
 Stephen Deyo, Clark County Air Quality Planning Division - Technical Services
 Rob Arpino, Arizona Department of Environmental Quality
 Bret Anderson, US Forest Service - Air Quality Modeling Specialist
 Tim Allen, USFWS - Meteorologist/Modeler
 Chris Lee, ITEP/TAMS - Co-Director
 Cristina Gonzalez-Maddux, ITEP - Research Specialist

Agenda

DAY 1 (Wednesday, Oct. 16) - AERMOD Fundamentals (P1) PLUS Modeling and Source Permits

Duration	Time	Activity	Instructor
0:15	8:00 AM	Welcome: Instructor and Participant Introductions, Review Course Manual, Course Policies; Hand out Reflective Writing	Cristina
7:30	8:15 AM	Part I. AERMOD Basics (model overview & preprocessors) AND Air pollution dispersion fundamentals (i.e. physics of air dispersion, terrain theory)	Jesse and Cris The - Lakes Environmental
1:00	3:45 PM	Permitting models 101 - Role of the state regulatory agency; Use of dispersion modeling by states	Rob
0:45	4:45 PM	Modeling report contents/requirements; Tribal engagement in permitting process	
0:15	5:30 PM	Reflective Writing, Reimbursement Forms, Announcements Adjourn	Cristina
<i>Assignment: Reflective Writing</i>			

DAY 2 (Thursday, Oct.17) - AERMOD Fundamentals (P2) PLUS Use of Models by FLMs

Time	Activity	Instructor
0:15	8:00 AM	Review of Day 1, Overview of Day 2, hand out Reflective Writing
7:15	8:15 AM	Part II. AERMOD Applications (case studies & hands-on activities)
2:00	3:30 PM	Air quality assessments in the NEPA process Permitting industrial activities on public lands
0:05	5:30 PM	Reflective Writing, Reimbursement Forms, Announcements
	5:35 PM	Adjourn
<i>Assignment: Reflective Writing</i>		

DAY 3 (Friday, Oct. 18) - CALPUFF Fundamentals PLUS Applied Modeling and Permit Review Sessions

Time	Activity	Instructor
0:15	8:00 AM	Review of Day 2, Overview of Day 3, Hand out Reflective Writing
7:15	8:15 AM	CALPUFF Fundamentals and Hands-on Activities
2:00	3:30 PM	Individual Projects Model a source on/adjacent to tribal lands: AERMOD or CALPUFF
		Presentation on permit modeling; Evaluate model reports & output files for source permits
0:15	5:30 PM	Closing comments, Course Evaluation
	5:45 PM	Adjourn
Modeling: Jesse and Cris Source Permits: Steve, Vasant, Chris Cristina		

LAST REVISED 9/20/2013

Dispersion Modeling course material and additional resources may be downloaded from the following URL:

http://itep68.itep.nau.edu/itep_downloads/DispModelingResources/

You will be asked for a user ID and a password

User ID: itep_user

Password: itepuser