

***Seminar Objective:** Provide an opportunity for introducing, refreshing or upgrading skills and concepts of mine ventilation for the engineering and technical professional and those who have an interest in the practical aspects of mine ventilation.*

MINE VENTILATION BASICS & PRACTICE

The session will be in seminar style with lecture, discussion and case studies. The course is planned for *8 PDH credits each day*. Each participant receives a certificate of attendance when completed.

*The Basic Seminar is **Vent 102: The Basics** for introduction or refresher in the basics. This is a novice or beginner's introduction to the basics of mine ventilation fundamentals and how they apply to real world practice. Most of the seminar is centered on the foundations of practical mine ventilation and introductions to ventilation planning and maintenance.*

*The Advanced Seminar is **Vent 202: Planning and Practice**. The focus is on the mine fan and how it is used, optimization, and common design problems. There will be brief discussion of the basics with emphasis on practices, methods and planning for mine ventilation systems – development, second mining and gob ventilation. Agency plans and planning in general will be discussed.*



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BASIC & ADVANCED TOPICS IN MINE VENTILATION

**SEMINARS FOR THE
PROFESSIONAL,
PRACTITIONER &
OTHER INTERESTED
PERSONS**

April 23 & 24, 2015

In Beckley, WV

May 13 & 14, 2015

In Evansville, IN



SEMINAR PROGRAM

1ST DAY, 4/23 OR 5/13

VENT 102 – THE BASICS

LIGHT BREAKFAST PROVIDED

AM SESSION: 8AM - NOON

Basic and Legal Concepts

- ◆ Brief History of Mine Ventilation
- ◆ Measurements, gases, forces
- ◆ Using and Abusing Data
- ◆ Legal Standards
- ◆ Case Studies

LUNCH PROVIDED

PM SESSION: 12:45-4:45PM

Basic Practice

- ◆ Basic & Multiple Circuits in Vent Systems
- ◆ Shock & Friction Losses, Applications
- ◆ Monitoring & Examinations
- ◆ Introduction to Computer Modeling
- ◆ Case Studies

2ND DAY, 4/24 OR 5/14

VENT 202: PLANNING & PRACTICE SEMINAR

LIGHT BREAKFAST PROVIDED

AM SESSION: 8AM - NOON

Design & Practice

- ◆ Fans: Heart of the System
- ◆ Fan Selection & Performance
- ◆ Blow, Exhaust, Push-Pull?
- ◆ Modeling the Fan in the System
- ◆ Case Studies

LUNCH PROVIDED--PM SESSION: 12:45-4:45PM

Mine Vent Planning

- ◆ Plans and Planning
- ◆ Fan placement: Blowing, Exhausting, Push-pull
- ◆ Gobs, Bleeders, Abandoned Areas
- ◆ Case Studies and Practice

A Participant may attend the Basic and/or the Advanced Topic seminars.

The cost is \$225/person/day. This includes the seminar, session notes, and documentation of attendance, refreshments and lunch. Pre-registration and pre-payment are necessary. Cancellations received in writing seven (7) days in advance of the seminar receive a refund.

SEMINAR LEADER

The Primary Presenter will be Mr. Gary M. Hartsog, PE & PS (SU). Mr. Hartsog is a Licensed Professional Surveyor (SU) in WV and Registered Professional Mining Engineer in WV, KY, PA, TN, OH, VA, IN, NY, LA, UT, CO and IL. He has over 35 years of underground mine ventilation experience in design and practice. Mr. Hartsog has BS Degrees in Education and in Mining Engineering (WVU '76 & '79) and MS degrees in Mining Engineering and Business Administration (WVU '85 & '05) and is the President of Alpha Engineering Services, Inc. of Beckley, WV.

*For additional information, contact Ellen at
Alpha Engineering: 304-255-4131 (Fax
304-255-4156) or
ehartsog@alphaengineer.com*

SEMINAR LOCATIONS

*Raleigh County Armory Civic Center
200 Armory Drive, Beckley, WV 25801*

*Hilton Garden Inn - Evansville
220 Eagle Crest Drive,
Evansville, IN 47715*

REGISTRATION FORM

REGISTRATION IS LIMITED.
PRE-REGISTER UP TO 7 DAYS PRIOR

Name: _____

Company: _____

Address: _____

City, State, Zip: _____

Telephone or Cell: _____

E-mail: _____

I will be Attending the:

Beckley:

4/23- Basic Seminar (\$225) \$ _____

4/24- Advanced Seminar (\$225) \$ _____

Evansville:

5/13- Basic Seminar (\$225) \$ _____

5/14- Advanced Seminar (\$225) \$ _____

Total Enclosed \$ _____

Written cancellations received 7 Days prior will receive a full refund. Mail registration & payment to:

Alpha Engineering Services, Inc.
Attention: Ventilation Seminar
216 Business Street
Beckley, WV 25801