

Foam Technician Level II **Combat Engineering** Spills & Fires Ethanol & Crude Oil Cottrell Associates - National Foam Seminar Series

Program content contributed by flammable liquid fire protection specialists, industrial fire fighting instructors, industrial fire protection engineers, fixed system design consultants and fire apparatus design professionals from throughout the fire protection industry.

Foam Technician Level II - Tech Level I is prerequisite

Advanced Foam Ops. At Ethanol And Crude Oil Transportation Events Six contact hours (five hr. classroom - one hr. hands on making)

One hour review of Tech I terms and concepts

I. Foam Concentrate Proportioning

- a. portable line eductors / self-inducting master streams
- b. understanding onboard apparatus and marine foam firefighting systems.
- c. jet-ratio and portable ATP systems (around the pump proportioning)
- d. balanced pressure systems (National Foam Servo and Pierce Husky systems)
- f. direct injection systems (Hale FoamPro Rosenbauer Waterous)

II. Quality Control

- a. determining your foam concentrate's fitness for use
- b. testing apparatus foam systems (kept simple)

III. Combat Engineering - Ethanol, Processed Hydrocarbons and Crude

- a. spill fire calculations (support logistics foam and water)
- b. storage tank fire calculations (support logistics foam and water)
- c. water resources (land & marine exposures)
- d. foam concentrate movements, transfer and long term supply logistics
- e. managing and mitigating environmental issues (public information pointers)

IV. Developing Effective Foam & Water Streams

- a. principals of real world fire stream reach
- b. big water hydraulics five, six, eight-inch and larger supply hose systems
- c. big water pumps and appliances
- d. coordinating land and marine recourses

Instructor:

Jim Cottrell, of Cottrell Associates, Inc. has been a National Foam factory agent and product development consultant since 1988. His Combat Support Products division manufactures specialty foam firefighting equipment, conducts high hazard risk assessments and special ops. training for industrial, marine and municipal fire markets. foamquy@mac.com

Jim chairs the IFSTA Foam Technical Committee and a member of the Underwriters Laboratories, Foam Standards Technical Panel. He has written extensively on the subject of firefighting foam chemicals, large caliber fire stream, water supply management and foam applications for municipal and industrial firefighting. www.cottrellassociates.com/cottrell_combat-support-home/tech-training-support.html

