

Short Course on Coal and Petroleum Coke-Making Presented by the University of Kentucky Center for Applied Energy Research Professional Education Program



Instructor: Mr. Kenneth Krupinski,
Formerly of Koppers



Date: **Wednesday, September 21st**
Time: 8:30 am – 12:00 pm

Location: Kentucky Geological Survey Core Barn
Research Park Dr., Lexington, Kentucky 40511

Cost: \$75.00*

Registration: Teresa Epperson,
Epperson@caer.uky.edu
859-257-0200

Three professional development hours (PDH) for engineers are offered with this course. Registration is limited. Deadline for registration is September 14th.

There is a resurgence of interest in coke making, particularly in the utilization of coal to produce coke. While coking is a mature industry, there are strong drivers to explore alternative sources of coke, especially as sources of low sulfur and low metal content cokes are becoming scarcer. This short course is intended to offer a fundamental knowledge of coke and coke making. Topics covered will include production methods, uses, and properties of the two major coke types (metallurgical and petroleum cokes). Metallurgical cokes include: blast furnace, foundry and formcoke. Petroleum cokes include: delayed (shot, sponge and needle) and fluid coke.

Additional topics include:

- history of coking
- types of coke ovens – recovery, non-recovery, pre-heat, and jumbo
- coal-tar production and collection
- coal-tar pitch production
- quinoline insolubles (QI)
- uses of coal-tar and petroleum pitches
- anodes for aluminum production
- graphite electrodes
- mechanism of binder coke formation
- interaction between coal-tar pitch and petroleum coke
- coke from de-ashed coal and
- a designed experiment – effect of pitch variables on anode performance

**continental breakfast, course material booklet, and CD will be provided.*