Quality Characteristics of the Lower Elkhorn Coal Bed in Eastern Kentucky

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Thickness and quality data from the Kentucky Coal Resources Information System (KCRIS) are summarized in this chart for the Lower Elkhorn coal bed (and equivalents). Parameter averages and ranges of values are presented in the two tables, and average values are displayed graphically by county.

The Lower Elkhorn is one of the most heavily mined coal beds in the Eastern Kentucky Coal Field; more than 17,000 tons were mined in 1997, according to the Energy Information Administration. The Lower Elkhorn, which occurs within the Pikeville Formation of the Breathitt Group, is also one of the thickest and most laterally extensive coal beds in eastern Kentucky, averaging 55 inches in thickness where sampled in Pike and Martin Counties (mainly in and adjacent to active mines). In other counties where the Lower Elkhorn is mined, it averages 39 inches in total bed thickness. The Lower Elkhorn coal bed is characteristically low in ash and sulfur (avg. 7.5 percent and 1.2 percent, respectively), which historically has made it an attractive target for both steam and metallurgical applications. The low sulfur content renders it a “compliance coal” in many instances, meaning that when burned, it emits less than 1.2 pounds of sulfur dioxide (SO\textsubscript{2}) for every million Btu generated.

The Environmental Protection Agency is currently interested in the amount of mercury and chlorine in coal that is burned by electric utilities. KCRIS data indicate the mercury content of the Lower Elkhorn coal varies between 0.01 and 0.57 parts per million (ppm, whole coal basis). Chlorine contents vary between 100 and 3,700 ppm.

References Cited

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