Quality Characteristics of the Springfield Coal in Western Kentucky

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

The Springfield (Western Kentucky No. 9) coal bed occurs in the Western Kentucky Coal Field and is one of the most heavily mined coals in Kentucky. The Springfield coal occurs near the middle of the Carbondale Formation, one of the most laterally continuous coal beds in the Eastern Interior (Illinois) Basin, and has been a leading producer in Kentucky for several years. For example, in 1997 it accounted for nearly one-fourth of Kentucky’s total coal production.

In western Kentucky, the Springfield is remarkably uniform, averaging 4.8 feet in thickness, 11.0 percent ash yield, 3.9 percent total sulfur, and 12,866 Btu/lb. Unfortunately, its high sulfur content has limited its use as a steam coal to electric utilities equipped with sulfur dioxide reduction technology, such as flue-gas desulfurization (often referred to as a “scrubber”) or fluidized-bed combustion.

The Environmental Protection Agency is interested in the amount of mercury and chlorine in coal. Although elemental analyses are limited, KCRIS data indicate that the mercury content of the Springfield coal varies between 0.01 and 0.07 parts per million (ppm, whole coal basis). Chlorine contents vary between 100 and 1,700 ppm.

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References Cited