

INTERIM FINAL TECHNICAL REPORT  
February 1, 2003, through August 31, 2003

Project Title: **INDUSTRIAL ENGINEERING APPLICATIONS FOR  
ENHANCING UNDERGROUND COAL MINING PRODUCTIVITY**

ICCI Project Number: 02-1/1.1A-3  
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ABSTRACT

Underground coal mining methods are very cyclical in nature, and this is particularly true of room-and-pillar mining, the most widely used mining method in Illinois. Industrial engineering techniques can be used to improve the efficiency of the various mining cycles in room-and-pillar mining. The objective of this project is to achieve productivity gains and cost reductions at particular mining operations by training mine operators and miners to apply industrial engineering techniques.

In today's economy, consultants typically do this type of work. For this project, the services of Mr. Mike McGolden were obtained. He has had a long career in the coal industry including managing operations in Illinois and conducting productivity training for several eastern U.S. operations.

The project scope of work consists of four primary tasks. The first step is the development of a general training program highlighting the various mining cycles and value of improvements in efficiency. This training program has been developed by Mr. Mike McGolden and consists of several computer slide presentations. The second task involved establishing contacts at the underground mines throughout Illinois. Mr. Zbig Just was hired for this task. His career in sales and service of underground mining equipment makes him well-suited for the task. Contact letters have been sent to six mines. Two other mines have been contacted by phone or personal visit. The third task in the project is to visit participating mines. These visits serve two purposes – to promote the training program to mine management and to observe and collect data on the operating practices at the mines. The fourth task of the project is to provide the training program to the miners. The project goal is to provide the training program at five mines. Scheduling of the first mining program at an Illinois mine will be done in September 2003.

Delays in finding a suitable consultant got the project off to a slow start. A no-cost extension was granted in February 2003, extending the project through January 2004. The final report will be available in February 2004.