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Whitepaper

Innovative Conveyor Design Solves Hoisting Problem for Illinois Coal Mine

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Turris Coal Company (a subsidiary of Shell Oil Company) faced a serious problem in early 1981 at their underground mine No. 1 in Elkhart, Illinois. They were attempting to determine the most cost-effective method to lift coal to the surface from a depth of approximately 300 ft. Their original design specified an inclined conveyor in a slope drift constructed at an angle of 17 degrees. However, the depth of unconsolidated material encountered made the prospect of driving an incline risky and expensive.

The Turris engineers preferred to utilize a conveyor system due to its high reliability and continuous operation. It they chose to drive a vertical shaft to simplify their excavation problem, they would be forced into the unpleasant necessity of installing a skip hoist and foregoing the advantages of a conveyor system. Turris Coal Company was facing a dilemma they wanted to construct a vertical shaft and use a conveyor system.

The materials handling specialists at Scholtz-EFS Corporation, Annandale, Virginia (an affiliate of Scholtz-EFS GmbH, Hamburg, West Germany) presented Turris Coal Company with an innovative solution. With a Scholtz Vertical Conveyor System, Turris Coal Company would have a cost-effective conveyor system installed in an economic vertical shaft.