Overheat and Fire Detection in Conveyors

Conveyor fires are typically caused by friction due to belt slippage, bearing problems, static electricity, welding operations adjacent to the conveyor or spontaneous combustion. Given the rapid spread of a fire on a moving conveyor, a Protectowire FireSystem designed for fast response can mean the difference between a controlled fire situation and a major disaster.

The key to this system is a heat detecting cable that can be installed in close proximity to any type of conveyor. A Protectowire control panel can signal an alarm, initiate sprinklers or other extinguishing systems and shut down the conveyor. Our digital meter pinpoints the location of any overheat condition, assisting fire fighters in determining the best point of entry.

On belt type conveyors, Protectowire Linear Heat Detector can be ceiling or pipe mounted, or installed on either side of the belt on or above the idler arms. Type XCR or EPR Detectors withstand abrasive coal dust, moisture and the corrosive atmosphere found in this environment.
In photo above, Protectowire Linear Heat Detector is mounted over a roller bearing. Copper wire is run in conduit from the fire alarm control panel to the zone box. From this point the Detector follows the conveyor run and terminates in an end-of-line resistor box.

Photo at upper right shows Protectowire Linear Heat Detector installed in an underground conveyor tunnel with the Detector used to activate a deluge sprinkler system.

Protectowire Linear Heat Detector is a component of a complete family of fire detection systems manufactured by The Protectowire Company.