Application of Ceramic Rings on Outer Carrier for Flame Detection System

Liao Cheng Power Station, China 2 x 600MW Front and Rear Fired Power Station Boilers supplied by Dongfang Boiler Works, China 24 coal burners, 24 oil burners on each boiler







Before

- Outer carrier erosion from fast moving coal particles in the secondary air
- Frequent damage to fiber optics due to broken outer carriers
- Unstable performance from flame detection system

After

- Innovative application of ceramic rings on flexible section of the outer carrier
- Outer carrier erosion issue resolved
- Extra protection for the fiber optic

Results

- Fiber optics service-life increased by more than 100%
- Improved stability and reliability of flame detection system
- Decreased maintenance
- Improved boiler safety

