Assuring Roll Spalling Integrity

During a mill crash, rolls can damage and develop micro-cracking, leading to an explosive shattering or fragmentation of the roll, resulting in serious injuries. In order to avoid these catastrophes, Acoustic Emission testing can be used in addition to current safety practices.

Acoustic Emission is a technology that hears active micro-cracking in rolls. Once the cracking emissions stop, rolls are safe to move. If rolls are acoustically active, they can remain in a safe storage area until the activity stops.

Steel and Aluminum companies have been using this technology for over 15 years and MISTRAS has now developed an improved system based on a convenient, “pocket computer” platform. The result: a straightforward, easy-to-use instrument that can be operated by just about anyone.

Simply attach the sensors and power up the unit. The simple step-by-step procedure allows a user to find active cracks in a short, one-hour monitoring period.

A single numeric Acoustic Emission value is produced by the unit, simplifying the pass or fail process for the roll. The RollPAC system has two channels allowing two rolls to be tested at one time and with additional set-up, the system can be programmed to provide a linear location documenting the zone on the roller where actual cracks are happening. All systems include a technology package and specific instructions for testing rolls.

For more information: Please call 1-609-716-4000 or visit us on the web at www.mistrasgroup.com.

RollPAC™ System for Roll Spalling Safety