Improving Safety In Railroad Operations

In recent years, the U.S. Federal Railroad Administration (FRA) has made significant strides in improving railroad safety. As of December 2020, 37 states have signed agreements with FRA to implement technology and training programs as part of the Railroad Safety Improvement Act of 2008. These efforts have led to a 43% decrease in railroad accidents from 2005 to 2020.

CSA and CRS: Why Now?

CSA (Condition-Based Safety Assessment) is a comprehensive strategy for improving railroad safety by focusing on reducing the likelihood of accidents caused by human error. CRS (Condition-based Reliability System) provides dynamic, continuously monitored data to identify potential safety risks in real-time.

CSA and CRS: Changing the Way Railroads Think About Safety

The implementation of CSA and CRS is critical for improving railroad safety. These strategies provide real-time data on equipment and infrastructure conditions, enabling operators to take immediate action when necessary.

CSA Results

- Injuries drop 76%
- Train operator fatalities drop 79%
- Death rates drop 62%

CRS Results

- Speeding reports drop 51%
- 31% more train cars moving between incidents
- 90% discipline cases resolved

CSA and CRS: Volpe’s Role

Volpe, the Volpe Foundation, supports research and development in transportation systems. By encouraging collaboration between government, industry, and academia, Volpe aims to improve rail safety and efficiency. The foundation's work includes supporting projects that enhance safety management systems, promote innovative technology, and foster interdisciplinary research.

CSA and CRS: Creating a Culture of Cooperation

By implementing CSA and CRS, railroads can foster a culture of cooperation and continuous improvement. This approach not only reduces accidents but also promotes a shared commitment to safety, which is essential for maintaining a safe and reliable rail network.

Volpe’s results inform important industry decisions

Industry leaders are leveraging Volpe’s research to inform decision-making processes. The foundation’s data-driven approach helps identify safety risks and enables the development of effective strategies to mitigate these risks. By focusing on prevention, Volpe supports the creation of safer rail systems for all.