

CORTEX™

QUALITY DEFECTS

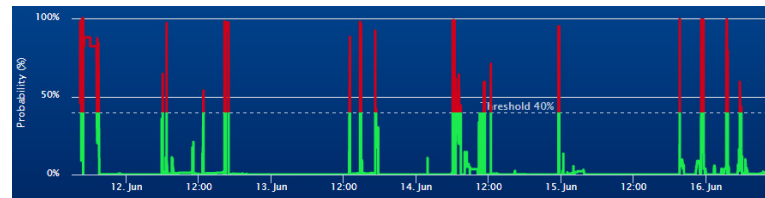
ROOT CAUSE

INITIAL USE CASE

Product defects are a costly but common occurrence in the steel industry. Steel process experts understand key variables impacting defects, but it is often difficult to point to a clear cause. Through the combination of OnPoint's CORTEX™ platform and engineering expertise, and Big River Steel's process knowledge, OnPoint sought to create a solution to reduce defects before they occur. OnPoint compiled more than 4,000 variables from multiple data sources. Leveraging the CORTEX platform through work with Big River Steel, the team reduced the data set to less than 50 key variables. While delivering the solution, our engineers discovered key insights enabling OnPoint to provide operators real-time guidance for reducing process defects.

SOLUTION

Incorporating the knowledge of Big River Steel's subject matter experts, OnPoint developed dynamic models using key process variables. This gave the facility the ability to predict their quality defects. The models were developed to reflect physical relationships and ensure optimal performance. Based on new knowledge from the model, changes have been made to the controls programming in order to reduce ongoing defects. This real-time model alerts operators of changed conditions that increase the likelihood of defects, highlighting the changes in the variables driving the increase. End results indicate the ability to minimize defects and present opportunities to Big River Steel's facility, equating to significant savings.



“EFT’s CORTEX platform enables our operating and maintenance teams to leverage the power of data science, resulting in significantly improved performance. We view data analytics and machine learning as game-changing solutions that allow us to identify and avoid the root causes of defects.”

- Dave Stickler, CEO, Big River Steel

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