

Pulp & Paper Plant - Boiler

Problem

- Boiler motor failure

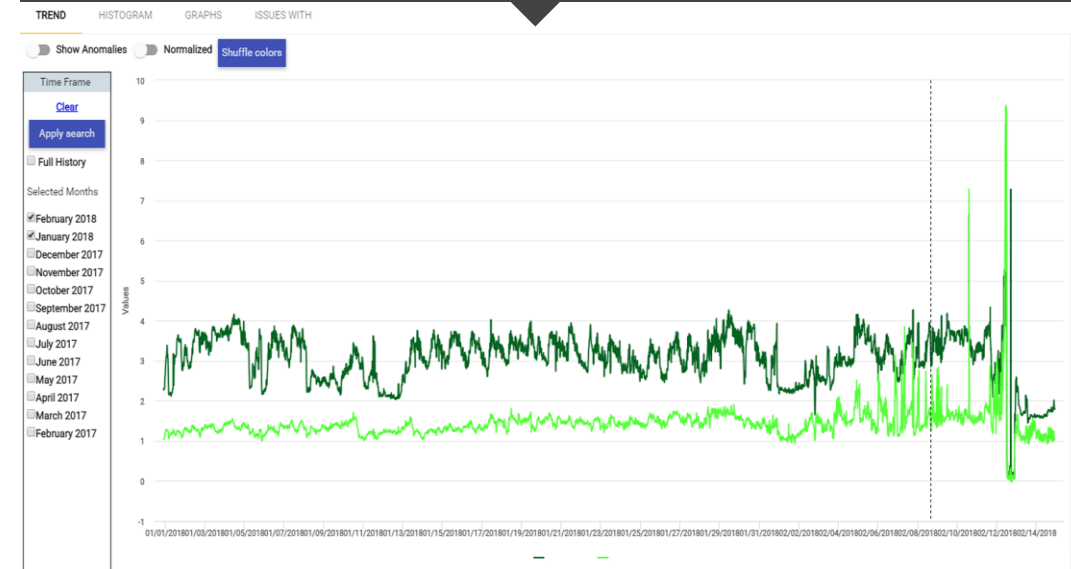
Action Taken with SAM GUARD

- A failure that happened on February 12 was retroactively investigated using SAM GUARD.
- The project manager testified that “the most evident are the vibration tags 34xxx7 and 3xxx16. They directly show the reason for the issue, as they affect the current. Several issues were raised specifically pointing to the tags of the motor.”
- Based on the plant model and machine learning calculations, the plant operation team discovered that the motor current is influenced by the following tags: 34xxx11, 34xxx12, 34xxxVI, 34xxx6, 34xxx7.
- SAM GUARD reported several issues for the tags before the actual failure, which could have predicted the failure as much as a few days in advance.

Value

- Damage of at least \$1.875M could have been prevented due to the plant being down for several days.**
- One day of lost production is \$937K (1500 tons x \$625 per meter ton).
- If we consider only 2 days, this is the money lost only in lost production. Repairs and other collateral damage would add further expense.

We can see here the issue was already reported on Feb 8th, and later, on the 11th



A few hours before the failure, another issue occurred, where the problem could be clearly seen:

