

Petrochemical Plant - Compressor

Problem

- SAM GUARD identified a continuous discrepancy in a relationship between two vibration tags.
- The compressor is a highly critical piece of equipment, controlling the plant's control flow valves.
- When the alerts occurred, the substitute compressor was in repair. If the compressor had broken down, the plant would have completely shut down.

How SAM GUARD Helped

- SAM GUARD triggered an alert. The process engineer looked at the software and saw the abnormal relationship of the tags, leading him to send technicians to prevent a complete shutdown of the plant.
- A team was sent to check the compressor. Nothing was found. The sensor was replaced to rule out the possibility that the faulty vibrations were a result of a bad sensor.
- When the faulty vibrations continued, further investigation found the faulty part, which was replaced.

Value

- SAM GUARD's alerts prevented the failure of the compressor of the system that controls the air pressure of the valves of the entire plant. Had the compressor failed, the entire plant would have shut down for at least 1.5 days.
- SAM GUARD avoided a shutdown, which would have caused substantial damage, and SAM GUARD increased the availability of the plant.
- **\$1.1M of damage prevented** (1.5-day shutdown = 240k tons of ethylene per year / 350 days of production x \$1070 per ton)

