

Cost Effectively Supporting Maintenance Activities

How is your maintenance department performing with regards to functional safety?

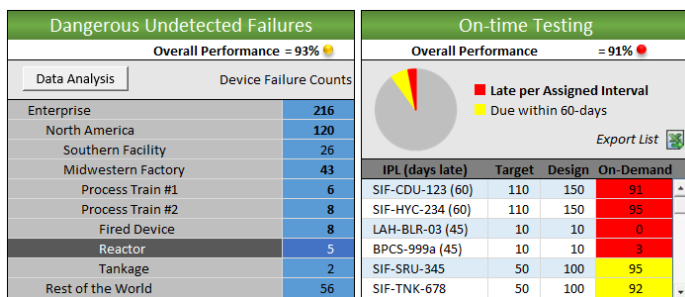
Trying to keep a plant up and running is challenging enough. We simply don't have the resources to make our technicians process safety experts. Chasing down the necessary information to connect field failure to SIS design basis just isn't happening.
-SIS Automation Team Lead

On-time Testing

We know aeShield® can be the single-source of truth for your process safety data. The inherited data model linking risk rankings down to tagged devices makes it easier to support daily maintenance activities. Did you know you can also interface with maintenance management system (CMMS) data to gather test results and monitor on-time testing? As results are brought into aeShield, you can perform on-demand safety integrity level (SIL) calculations as your test interval increases and have line-of-site into upcoming critical tests. This information leads to better business decisions surrounding outages, overhauls, turnarounds and risk management.

Gathering Failure Data

With the interface to your CMMS, you have access to whether the test passed or failed. Periodic review enables personnel, that understands safety instrumented systems (SIS), to prepare the records for failure rate analysis (i.e. fail safe or dangerous). As you collect failures over time across your enterprise, you can pinpoint the device types that are failing more frequently than the failure rates used in SIL calculations. What used to be impossible can now be at your fingertips.



Maintenance tracking widgets



Supporting Bypass Management

aeShield is equipped with an Override Risk Analysis report that maintenance and operations can run on any device or protection layer prior to bypassing. The report will return the sibling instruments/IPLs, hazardous scenarios, and risk ranking before and after bypassing. The ranking can help with decisions on special mitigations and sign-off requirements. Traditional documentation and paperwork engulfs a small army of people to produce what now takes just seconds using aeShield.

Functional Safety Index™

As thought leaders, aeSolutions has developed a single metric to measure overall performance of all protection layers versus what is assumed during initial design at your facility. The fundamental concept behind the key performance indicator is leveraging logic used in a Layer of Protection Analysis (LOPA). In a LOPA study, the team evaluates potential hazardous scenarios by establishing the severity of the event and the likelihood of the event occurring given the effectiveness of various protection layers. To reduce the risk to a tolerable level, safeguards in the form of independent protection layers (IPLs) are added. If you can monitor the performance of these IPLs in real-time operation, then aeShield can calculate the Functional Safety Index™ (FSI) by comparing actual versus assumed performance. For the first time, FSI as an individual number can be added to a monthly scorecard next to throughput to ensure you met your goals and you did so safely. You can then use FSI to drill down to the bad actors that increase your risk profile and even understand where to best invest your money to reduce risk on a daily basis.

What is your FSI ?



Contact us today for a free demo or more information
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