



Alarm Management

We provide Alarm Management Facilitation and Implementation

Abalto Alarm Management Services help you to ensure that your alarm systems work at their best when they are needed most – during abnormal situations !

Does your alarm system provide process control operators

with the correct alarms in the correct sequence to be able to respond effectively to problems before they have a negative impact on the process or the plant?

Abalto believe that when it comes to your alarm system, Operational Excellence isn't a goal – it's a necessity. By identifying and removing ineffective alarms, operator performance will improve and their attention can be focused on delivering safe and productive plant operation that conform to regulatory requirements.

Here are the Benefits in some detail...

Improved Safety

- By actively addressing ineffective alarms, operator performance will improve and their attention can be focused specifically on delivering safe and effective plant operation.

Improved Plant Operational Excellence

- By developing an alarm management philosophy, performing alarm rationalisation and implementing the changes, the effectiveness of your control system improves results in Operational Excellence of your plant.

Improved Plant Maintenance Excellence

- Alarm Rationalisation enables plant maintenance personnel to effectively track all bad Process Variable events. Personnel will be better informed of issues and problems and as a result are better able to take action before disruptive events occur and hence results in Maintenance Excellence of your plant.

Improved Regulatory Compliance

- Alarm Rationalisation enables engineers, operators, and plant managers to know and better document the plant process control system alarm issues and prioritise maintenance and upgrade programmes that help comply with health, safety and environmental requirements.

Why Invest in Alarm Management

- Assure Health & Safety
- Mitigate Economic Loss – production & damage costs
- Consequence of inaction or wrong action are too high
- Rate of escalation of abnormal situations must be manageable
- Increase Operator Confidence and Efficiency
- Benefit from Planned, Preventive & Predictive actions rather than Reactive Fire Fighting

Characteristics of Good Alarm Systems

- Alert, Inform & Guide
- Useful and Relevant
- Have pre-defined response
- Adequate time for operator corrective action
- Takes account of human limitation



The First Step...Alarms Management Assessment

An **Abalto** Alarm Rationalisation Facilitator will be assigned responsibility for auditing every aspect of all your existing control systems alarm. The Facilitator will do the following:

- Retrieve all alarm logs for evaluation and statistical analysis.
- Examine the alarm performance during normal operation and upsets, overall alarm frequency, frequency of nuisance alarms and susceptibility to alarm floods using performance targets based on EEMUA 191 best practices.
- Use the information to assess exposure to risk as a result of poor alarm management.
- Utilise information of Plant Down-Time to present a cost benefit analysis to senior management.
- Construct a broad implementation strategy with senior management for executive approval.

The Second Step...Alarms Rationalisation Change Process Definition

The **Abalto** Facilitator and your Senior Engineers assigned to the project will systematically develop an alarm philosophy, an alarm rationalization process, and implementation plan for the changes for your operations and maintenance senior management approval. They will deliver the following:

- Detailed iterative processes and procedures for all Areas, Units and Equipment.
- Alarm philosophy with specifications to define and configure alarms, alarm settings, priorities, alarm quality and recommended corrective action standards.
- Performance targets to be achieved based on EEMUA 191 KPIs and best practices.
- An implementation plan for the changes.
- Present the Change Management Process to your Senior Managers for approval to implement.

The Third Step...Alarms Rationalisation Implementation

Utilising your management approved Alarms Rationalisation Change Process; **Abalto** will either execute or just manage the implementation delivering the following:

- Implement Real Time Alarm Management software at the operations control room.
- Implement Historical Alarm Management software on an OPC platform providing a comprehensive view of all alarms, events and user actions recorded in an events database. This enables you to quickly assess the performance of your alarm system and diagnose common alarm issues such as frequently recurring alarms, long standing alarms, and other nuisance alarms.
- Set up best practices for plant operators to effectively manage alarms.
- Provide Operator Training with alarm response scenarios.

The Fourth Step...Alarms Continuous Improvement Program

Your plant conditions and circumstances will change over time as units and equipment are modified and new ones introduced. The **Abalto** Alarm Management Maintenance Program is a service that provides periodic audits by the collection of alarm and event data from your plant.

An **Abalto** Alarm Management Specialists will compare the results with Baseline KPIs and consult with you on the findings and work out an action plan to address any issues in accordance with your established management of change processes.

We look for the plant Area and Equipment with highest alarm activity and re-examine the alarms management philosophy.

The **Abalto** Alarm Management Maintenance Program will keep your alarm system functioning optimally over the long run, ensuring continued benefits.