

GENERAL FACTSHEET

Operational human factors

Alarm system benchmark



Convert your alarm system performance metrics into an agreed programme of alarm management improvements.

“You can’t improve what you can’t measure.”

Deming

But, having done the performance measurement, what next?

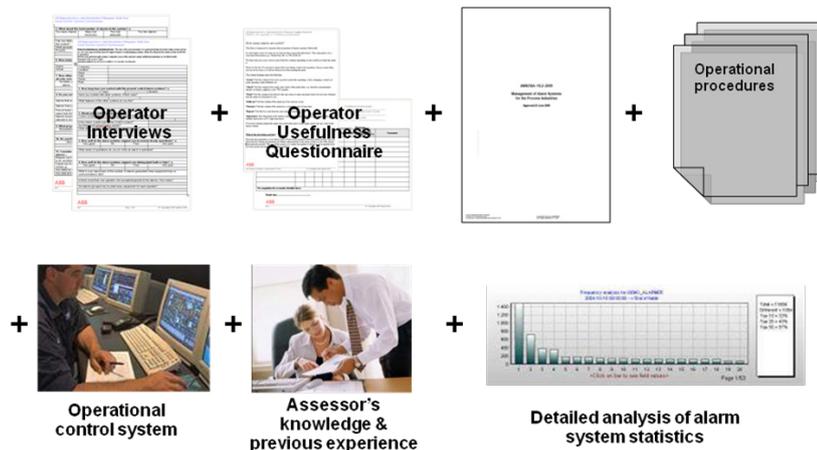
With the publication of Seveso III, the EU Commission has confirmed its inclusion of rules and principles for effective alarm management to match US DOT focus on alarm management as a key inspection topic for pipeline control room management (CRM) in recent amendments to 49 CFR Parts 192 and 195.

The issue of a full IEC standard (IEC 62682) will only increase the spotlight on the role of alarm systems

as a key layer of protection to assure safe and effective plant operation.

However, while regulators, and indeed the public at large expect to see the control room operator provided with an effective decision making and support tool, the reality of many of today’s control rooms is an alarm system which is usually ignored in upset conditions.

What we offer



The ABB benchmark or system ‘health check’ assesses alarm system effectiveness against corporate and legislative requirements and industry best practice to identify performance improvements and associated benefits. These improvements are converted into an agreed action plan and on-going programme for better alarm handling.

The ABB benchmark is most effective as part of an initial scoping exercise to formulate improvement plans, or later as a check on progress achieved and benefits delivered.

Each benchmark consists of:

- Structured interviews with key personnel such as operators, supervisors, engineers and production management staff
- Observation of the control room environment covering human factors such as user interface effectiveness, operator custom and practice
- Analysis of alarm system performance
- Review of alarm system documentation and supporting procedures

The benchmark entails no more than three days on site, with client input limited to facilitation of access to the alarm system and its operations and maintenance users.

The deliverable is a feedback presentation at the end of the visit summarising both current compliance status and areas for improvement.

Optionally, the feedback presentation can be delivered as a more detailed, formal written report and a proposed Level 1 improvement plan.

- Outline activities
- Proposed phasing
- Resource requirements

A life cycle approach

ABB provides a range of alarm improvement services based on a full lifecycle approach, rather than based on a particular product or technology. The service is equally applicable to both existing control systems and applications, and to the design of new systems. Our assignments are focused on transferring knowledge and skills to our clients, to facilitate ownership of alarm management as part of their in-house quality management and continuous improvement processes.



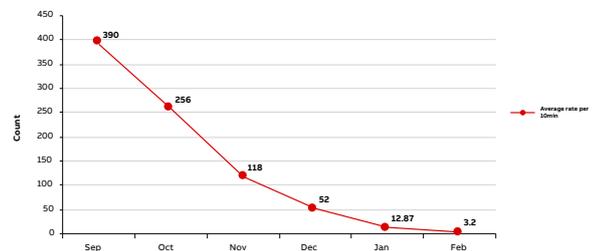
Benefits

For most of our clients, an alarm system benchmark is the first step on their alarm improvement journey delivering:

- Improved safety, health and environmental performance
- More flexible and efficient plant operation
 - Improved product quality
 - Increased productivity
 - Higher equipment availability
 - Faster and smoother unit start-up and shut-down
 - Fewer trips and instances of equipment damage

A number of our clients have reported bottom line benefits in the range \$250,000 - \$2,000,000

Figure 1: WDDM facility average alarm rate.



Why ABB?

ABB has unrivalled experience gained over many decades with one of the world-class manufacturing organisations of our time. This includes delivering focused alarm improvement programs for manufacturing clients on both batch and continuous processes. We also have access to the wealth of experience available in ABB worldwide, meaning we are capable of delivering a complete service, leaving you free for other priorities.