

SERVICE BRIEF:

User Centered Alarm Management Services

- Alarm Rates
- Nuisance Alarms
- Alarm Priorities and Annunciation
- Alarm Statistic Gathering and Analysis and More

The Situation:

During plant upsets are the alarms coming in so fast that your console operator has someone stand next to them and press the silence button? Do your console operators pick their own alarms settings? Do you have alarms configured, but no one knows why they were set at that particular value? Do your console operators only look at the screen when the alarm goes off? Do you have pages of disabled or standing alarms? Does your site have a clearly written, well understood, and fully implemented alarm management philosophy?

Do you realize a poorly implemented alarm system can actually prevent your operators from responding to abnormal situations properly, costing you lost production, equipment damage and possible injuries?

The Solution:

User Centered Design Services provides a comprehensive array of Alarm Management Services that can be used to:

- Assess the current state of your site's alarm system, benchmarking it versus EEMUA, ISA and ASM® Best Practices
- Perform *Workshops* to educate facilities on Best Practices in Alarm System Management
- Develop a detailed *Alarm Philosophy Document* covering all aspects of Alarm Management, Rationalization, and life cycle management, including delivering *Training* to your facility on proper implementation
- Provide *Project Facilitation Services* to ensure you're alarm management implementation project stays on track and delivers real benefits to your organization

THE METHOD:

The Alarm Management Assessment and Philosophy covers the following alarm issues:

- Alarm Objective Analysis
- Alarm Rationalization
- Alarm Lifecycle Management

The Services:

Alarm System Assessment

The first step in the Assessment is to collect data on the current performance of the plant's alarm system. There is commercially available software that manages and tracks the performance of the plant alarm system. If the Client already has this type of software, we can use the existing data. If the plant does not have this software UCDS can arrange to install the appropriate software during this data gathering period. If the Client would prefer to purchase this software for continuing use UCDS can recommend Vendors.

Next, we schedule a site visit to evaluate the current alarm system. UCDS will visit the site for three days. During the visit UCDS performs interviews with multiple representatives of the departments involved in the management, implementation, use, and maintenance of the alarm system. This typically includes: Senior Management, Department Management, Instrument Engineers, Instrument Supervisors and Technicians, Process Engineers, Training Supervisors, Trainers, Procedure Writers, Control System Engineers and Technicians, Operations Supervision (all levels,) Field and Console Operators, Health and Safety, and Process Safety Management. After the site visit and data analysis a report will be generated detailing the current state of the site alarm system along with identifying specific gaps versus Best Practices.

Best Practice Workshops

We will come to your site to put on a two day workshop to review Alarm Management Best Practices with key personnel on your site. This is an excellent tool to create awareness within your organization on the methods Best-in-Class facilities are employing to make dramatic improvement in the performance of their alarm systems.

Alarm Philosophy

We will develop a comprehensive Alarm Philosophy customized for use at your site. This Alarm Management Philosophy document will be tailored for use at the site to set policy around future implementation, use, and maintenance of the alarm system.

This service begins with a three day site visit to interview stakeholders in the alarm system (similar to the Assessment above.) UCDS will then generate a draft Philosophy document for Client review.

UCDS will then put on a two day workshop at your site to educate key personnel on the content and proper implementation of the Philosophy.

Project Facilitation

Our extensive experience has shown that the key to a successful alarm management project is treating it as a project, with management commitment, goals, budgets, schedules, and allocated resources. Keeping this project on track can be a daunting task for a Project Manager who has likely never managed a project quite like this.

UCDS can provide *Project Facilitation Services* that will assist the site in setting up the project, provide periodic site visits to check in on the progress of the project, and provide unlimited telephone and email support for the project team. UCDS will visit the site for a two day kickoff meeting, followed by two day meetings each quarter for the next year to assess progress.

It is common for a Client to contract more than one of these services, and site visits can be optimized to minimize cost and Client manpower commitment.

Benefits:

A properly implemented alarm system can reduce operator work load, improve situational awareness and aid the operator in preventing minor deviations from becoming major incidents. A poorly implemented system adds to workload, increases frustration, stress, and confusion, and can ultimately impact safety, reliability, production, and profitability. The Alarm Management Services provide a rational and structured basis for ensuring all areas of importance relating to the alarm system are successfully addressed.

Related Services:

Clients who are interested in evaluating and upgrading their alarm system are also frequently interested in doing the same to their Human-Computer Interface. User Centered Design Services offers a ***Human-Computer Interface Services*** to satisfy this need. Please see the Service Briefs for more information about this service.

Additionally, there is frequently a desire to upgrade the operators console to further incorporate a high level of human-factor design in the console operator environment. User Centered Design Services also offers ***Console Design*** services. Please see the ***Engineering Services*** Service Briefs for more information on this service.