

PRACTICAL ALARM MANAGEMENT FOR ENGINEERS AND TECHNICIANS



YOU WILL LEARN HOW TO:

- Design and create a consistent and effective alarm philosophy for your installation
- Recognise and deal with human problems in interfacing to alarm systems
- Apply the ergonomic design factors to a good alarm system
- Analyse alarm data for root causes of problems and to improve your operation
- Benchmark your alarm system performance
- Develop and apply a consistent alarm philosophy across your installation
- Improve your plant reliability and operator effectiveness with a top notch alarm philosophy

WHO SHOULD ATTEND:

- Anyone involved in the installation, design and support of alarm systems
- Design engineers
- Electrical and instrumentation technicians
- Electrical engineers
- Instrumentation and control system engineers
- Instrumentation technologists and engineers
- IT managers working with networks
- Maintenance engineers and supervisors
- Operations managers
- Plant engineers
- Process control designers and systems engineers
- Process control engineers and technicians
- Process engineers
- Production engineers
- Project engineers
- Systems engineers



Technology Training that Works

The Workshop

It is 6.00 in the evening after a hot summer's afternoon and the shift has just changed over. The control room has been rather quiet through the day with the odd alarm punctuating the serene silence. In fact this plant has been a truly contented baby with no major problems for over 18 months since it was commissioned. Apart from the inevitable mechanical wear and tear associated with a new plant. Suddenly there is an explosive roar outside and the control room door bursts open with the shift foreman dripping with sweat shouting: "We've just lost Unit 3, I'm not sure what is happening...can you tell me what is going on." Within seconds the alarms start pouring in. The operator starts to systematically work his way through the overview displays trying to identify what is going on. But he is slowly overwhelmed by the sheer number of alarms which are flitting across the screen so fast that he cannot even read them. And Unit 3 is now starting to lurch into a dangerous state with pressures, flows and temperatures well outside acceptable operating ranges. So it looks like an immediate shutdown of the plant is going to be required with some very unhappy customers over the next few weeks.

Was there any other approach possible?

Hopefully this is not the scenario on your plant; but could this just perhaps happen? Does your alarm system ensure the operator stays unerringly focussed on the source of the problem or is there a possibility that he could get overwhelmed and distracted by the number of alarms where many of them may not be relevant to the immediate problem?

It is important that throughout the plant that a consistent philosophy is adopted for alarms and that your operators are not distracted from the main ball game of operating the plant.

This workshop will give you the necessary information to ensure that your alarm system is well designed and provides your operators with the best picture of the operations of the plant. The workshop focuses on simple and practical information for personnel ranging from operators all the way up to supervisors, engineers and managers.

There are nine practical sessions in the design of alarm systems throughout the workshop, these ensure that you can apply the information gained in the training to your own plant and systems.

Pre-requisites

Some background in working with SCADA and process control systems would be useful to maximise your benefit from this workshop

The Program

INTRODUCTION

SAFETY EXAMPLES OF SYSTEMS

- Why alarm systems need to be managed?

Practical Exercise

FUNDAMENTAL PRINCIPLES OF ALARM SYSTEM MANAGEMENT

- Philosophies of alarm management

Practical Exercise

DESIGN OVERVIEW

- Human and ergonomic factors
- Structure of good alarm system
- Safety Integrity Level (SIL)

Practical Exercise

DEFINITION OF STRATEGY

Practical Exercise

MEASUREMENT OF THE ALARMS

- Audit the current alarm status

Practical Exercise

ANALYSE THE ALARMS

Practical Exercise

DESIGN OF ALARM SYSTEM

Practical Exercise

MEASUREMENT OF PERFORMANCE

Practical Exercise

MANAGEMENT OF IMPROVEMENT PROGRAM

- Alarm review
- Elimination of spurious alarms
- Process alarms
- Intermittent and fleeting alarms
- Control of modifications

Practical Exercise

HAZOPS AND ALARMS

- Establish a strategy

Practical Exercise

TIE IT ALL TOGETHER

- The way forward
- Summary of key concepts

SUMMARY, OPEN FORUM AND CLOSING

Practical Sessions

This is a practical, hands on workshop enabling you to work through practical exercises which reinforce the concepts discussed.

Nine Practical Sessions focussing on the design of Alarm Systems throughout the two days will ensure that you can apply the information from the course to your system.

To gain full value from this workshop, please bring your laptop/notebook computer.

“

The course was well presented.

Excellent Instructor.

J. Pollock

”

On-Site Training

- ✓ SAVE over 50% by having an IDC workshop presented at your premises.
- ✓ Customise the training to YOUR workplace.
- ✓ Have the training delivered when and where you need it.

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