



IBC's 15th event in the Series on  
Safe & Reliable Control Room Operations

2nd annual two-day course on

# Control Rooms: Operation and Design

29/30 June 2005

Berner's Hotel, London W1

Group  
Discounts  
Available

## Course Highlights

Through lectures, workshops, interactive discussion sessions and exercises this intensive course will equip attendees with practical techniques to address key Control Room issues, including:

- Control Room Design
- Communication and Information Provision
- Alarm Systems
- Operational Issues

## Workshops

- Layout Design
- Alarm System Rationalisation/ Rational Design
- Demonstrating Control Risks are being Managed

## Interactive Sessions

- Combining Alarms with Operations and the Achievement of Management Objectives
- Interactive Control Team Simulation

## Expert Lecturers from

AmecParagaon, USA

British Nuclear Group

BP Exploration  
Operating Co

Curvaceous Software

Link Associates

Matrikon Inc, Canada

Spectrum Risk Solutions

University of Abertay  
Dundee

Vectra Group

[www.safetyevents.com](http://www.safetyevents.com)

Quotes from delegates at last year's Control Rooms Course include:

*Excellent event that allowed plenty of opportunities to gather knowledge applicable to real projects* (Huntsman Petrochemicals)

*Workshops very useful in order to apply the techniques taught in the presentations* (Huntsman)

*Talk/workshop mix provides good speaker/delegate integration – beneficial to all practices* (Vectra Group)

*Pertinent and usable information. Well organised* (UKAEA)

*A good way to open your mind on operational issues* (ESSP)

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**Spectrum**  
Risk Solutions Ltd

This updated Control Room Course addressing Design and Operations is the latest in IBC's series of Control Room conferences and courses which is now in its 6th year. The structure and content continually evolve to meet the needs of delegates' based on our comprehensive research. The purpose of this course is to provide attendees with an opportunity to **apply practical proven techniques to structured control room design and operations scenarios and requirements.**

The emphasis is on providing an in-depth understanding of relevant methods and techniques through workshops and interactive sessions. Four main topic areas will be addressed:

- **Control Room Design and Information Displays** (including a workshop on layout design and interactive presentation of Control Room projects)
- **Operational Issues** (including the HSE sponsored control room Staffing Assessment Method)
- **Alarm Systems** (including an interactive presentation and discussion with Curvaceous Software who were awarded the 2003 European Process Safety Centre Award for the biggest single contribution to improving process safety)
- **Communication and Information Provision** (including a chance to participate in a Control Room Communications exercise; observing and directing a team)

## Course Objectives:

At the end of the course attendees should have

- **A real awareness of major current issues affecting the management of control rooms**
- **A range of detailed techniques with which to approach these issues**
- **The experience of having utilised these techniques in case study/role play situations**

This course will benefit Operations Managers and their teams as well as Control Room Designers and Project Managers. For those who would wish to engage specialists, it will improve their position as a 'knowledgeable customer'. The number of attendees will be strictly limited to ensure full participation during the workshops, interactive discussion sessions and exercises.

As usual for these events good networking opportunities will be available plus the opportunity to informally discuss aspects with the lecturers. participation during the workshops, interactive discussion sessions and exercises. As usual for these events good networking opportunities will be available plus the opportunity to informally discuss aspects with the lecturers.

### Visit the IBC Website: [www.safetyevents.com](http://www.safetyevents.com)

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- Open 24 hours, whatever your time zone

Course Director: *Dr Susan Whalley-Lloyd,*  
Director,  
**Spectrum Risk Solutions Ltd**

Wednesday 29 June 2005

## 09.00 Registration and Coffee

## 09.15 Course Introduction

### CONTROL ROOM DESIGN

## 09.30 LAYOUT AND LOCATION DESIGN

- Designing for all the end users
- What does it control and what are the risks
- How much space
- Developing the Specification

*Dr E Johan Hendrikse,* Manager Human Factors Engineering, **AmecParagon, USA**

## 10.10 CONTROL ROOM CASE STUDIES

Examples of Control Room Designs from a range of countries. This will include discussions with participants of the key influences on the projects:

- Design constraints in new and refurbished rooms
- Engineering the appropriate environment for 24hr working
- Manning level requirements and operating philosophy
- Practical issues related to large & small screen information displays

*John Ryder,* Principal Consultant, Design Solutions Group, **Vectra Group Limited**

## 11.00 Coffee

## 11.20 Workshop 1: LAYOUT DESIGN

- Exploring the options and creating potential layout designs for an example control room

*Dr Susan Whalley-Lloyd*

## 13.00 Lunch

### INFORMATION SYSTEMS

## 14.00 COMBINING ALARMS WITH OPERATIONS AND THE ACHIEVEMENT OF MANAGEMENT OBJECTIVES

- Defining Alarms and linking them with plant operations and KPI achievements
- Providing a method to find the values for many alarm limits at once.
- Better alarms, much faster and easier to use.
- This discovery won the European Process Safety Centre Award in 2003 for the biggest single contribution to improving process safety.

*Robin Brooks,* Managing Director, **Curvaceous Software Limited**

## 15.00 SIGNPOSTING: THE ROLE OF AN ALARM SYSTEM

- Alarm systems are a powerful tool to alert the operator that timely action is required.
- Rational design (or management) of alarm systems must apply this principle effectively; the problems of not achieving this are well documented - including un-necessary plant upset, loss of production and poor HSE performance.
- A range of practical tools and techniques can be deployed to optimise the interaction between the human operator and the alarm system, to ensure that the operator receives the right information at the right time.

*Dano Sanjee*, Control & Instrument Engineer, BP Exploration Operating Co Ltd

## 15.40 Tea

### 16.00 Workshop 2: ALARM SYSTEM RATIONALISATION/ RATIONAL DESIGN

This workshop will:

- review the process and concepts to achieve optimal alarm configuration
- explore the best practices in this area through a case study

*Jeff Gould*, Manager, Products, Matrikon Inc, Canada

## 17.30 Close of Day One

## Thursday 30 June 2005

## 09.00 Coffee

### 09.20 IDENTIFYING INFORMATION AND COMMUNICATION REQUIREMENTS

- Tasks taking place
- People's roles
- Normal, abnormal and emergency
- Giving and receiving information
- Controlling and monitoring
- Handovers

Speaker to be confirmed

### 10.00 WHAT THE DESIGNERS CAN'T CONTROL

- Job design of an operator
- Control Room Operators competences
- Communication from control room to outside

*Helen Rycraft*, Corporate EH&S Manager, British Nuclear Group

## 10.40 Coffee

## CONTROL ROOM OPERATIONS

### 11.00 MANAGING THE RISKS OF CONTROL ROOM OPERATIONS

- The importance of understanding what really happens in control rooms
- How technology has changed operators' jobs
- Managing major hazard and process risks associated with control room operations
- Protecting the health and wellbeing of control room operators

*Andy Brazier*, Consultant

### 11.40 TEAMWORK IN THE CONTROL ROOM: TEAMWORK IN NORMAL AND ABNORMAL CONDITIONS

- The role of CRO supervisors
- Teamwork and Resource Management in Supervisory Control
- Procedural and Discretionary Responses without Rule Violations
- Shared Mental Models and their role in Teamwork
- Training of Control Teams: Metrics and Methods

*Dr Malcolm Cook*, Senior Lecturer in Human Factors, University of Abertay Dundee

## 12.20 Lunch

### 13.20 Workshop 3: DEMONSTRATING CONTROL RISKS ARE BEING MANAGED

- Using the HSE staffing assessment method to assess staffing levels and arrangements

*Andy Brazier*

## 14.50 Tea

### 15.10 INTERACTIVE CONTROL TEAM SIMULATION

- Direct the Control Room Team during a "Live" scenario; detect and understand the type of problems that can occur when using information from a variety of sources.
- Participate in Control Room Operator Training, and experience the problems of emergency response
- Observe a team in action and judge how the demands on control room personnel can impact performance

*David Evans*, Director, Link Associates

## 16.30 Close of Course

**EXHIBITION OPPORTUNITIES** There are a limited number of promotional opportunities available to organisations that wish to raise their profile. This course will provide unique access to your targeted customers. The number of exhibition spaces is limited to ensure that those who do choose to exhibit are guaranteed excellent access to the audience and unparalleled exposure for their brand. Space will be allocated on a strictly first-come, first served basis. For further details please contact Michael Bond on +44(0)20 7017 4196 or Email: michael.bond@tfinforma.com