

AN ADVANCED COURSE

GAS EXPLOSION HAZARDS ON OFFSHORE FACILITIES

19th – 20th OCTOBER 2010



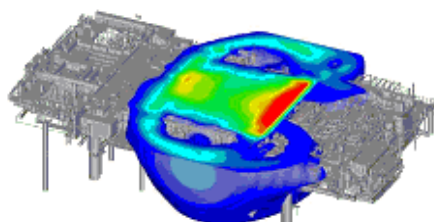
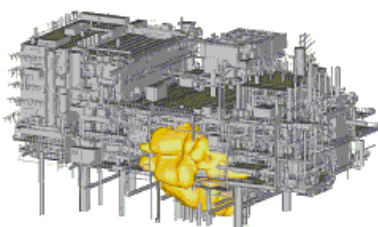
VENUE:

THE RITZ-CARLTON, KUALA LUMPUR, MALAYSIA

LEGISLATION EXPLOSION MODELLING RELEASE AND DISPERSION IGNITION
PREVENTIVE MEASURES MITIGATION PROBABILISTIC RISK ASSESSMENTS
ACCIDENTS SELECTED CASES OUTLOOK

AGENDA TUESDAY 19th OCTOBER 2010

09:00	Registration
09:30	Opening <i>by WorleyParsons Kuala Lumpur</i>
09:40	Introduction <i>GexCon AS</i>
09:50	Gas Explosion Basics <i>Combustion mechanisms, Fuel reactivity, Positive feedback mechanism, Effect of geometrical aspects, Explosion tests</i>
11:05	Risk Analyses <i>An introduction. What is risk? QRA, Acceptance criteria, Risk perception, Consequence and probability data</i>
11:30	Break
11:55	Explosion Accidents: Statistics and Examples <i>Overview and analysis of explosion incidents offshore</i>
12:25	Explosion Investigation of Rough 47/3B Platform <i>DVD "Incredible – What really happened"</i>
13:25	Lunch
14:25	Release and Dispersion in Offshore Facilities <i>Potential leak sources, Process streams, High and low momentum releases, Phase transition, Ventilation, Congestion and confinement, Modelling examples, Statistics</i>
15:25	Ignition Sources <i>Mechanical ignition sources, Static electricity, Electrical ignition sources, Statistics</i>
16:10	Break
16:35	Preventive Measures <i>Hazardous area classification, Ventilation, Choice of equipment, Maintenance and procedures, Inventory, ESD</i>
17:20	Questions and Answers <i>Close appr. 18:00</i>
19:30	Dinner <i>Seri Angkasa Revolving Restaurant, KL Tower.</i>



AGENDA WEDNESDAY 20th OCTOBER 2010

08:30	Arrival
09:00	Mitigation and Control <i>Layout, Use of explosion venting devices, Effect of waterspray, Escalation: Loading on equipment and piping, Passive fire protection</i>
10:00	Legislation and Standards <i>NORSOK, ISO, UK/US/Australia/Brazil/Canada, Asia</i>
10:30	Break
11:00	Explosion Modelling <i>Explosion modelling, Why simple models do not work, CFD, FLACS</i>
11:45	Explosion Analyses Part 1: Objective and Motivation <i>Risk acceptance criteria, What to protect</i>
12:05	Part 2: Explosion Risk Analyses – Simple Approach <i>Worst case, Case study, Advantages/disadvantages</i>
12:30	Lunch
13:30	Part 3: Explosion Risk Analyses – Advanced Approach <i>Probabilistic Analysis, Advantages/disadvantages</i>
14:10	Part 4: Selected Analyses Examples <i>Layout optimisation, Screening analyses for concept choice, Gas detection system optimisation</i>
14:55	Break
15:20	Structural Response <i>Static pressure versus dynamic pressure loads, SDOF versus FEM</i>
15:50	Outlook <i>Arctic regions, Alternative mitigation approaches: Soft barriers, enclosure around piperacks</i>
16:30	Questions and Answers <i>Close appr. 17:00</i>

GexCons explosion experts and WorleyParsons will be available for personal meetings on Thursday 21st October. Meetings must be booked in advance.

PRACTICAL INFORMATION

Registration before September 15th 2010

Pre-registration is required.

Please send an e-mail to offshore@gexcon.com or <mailto:offshore@gexcon.com> in order to receive a registration form. Your registration must be submitted before September 15th 2010.

Attendance fee 1.500 USD (includes 2 lunches and 1 dinner).

Hotel booking

A block of rooms is available at The Ritz-Carlton. In order to receive the special course rate you have to use the Reservation Form for the hotel, which will be sent to you with the registration form. Accommodation is not included in the attendance fee.

The Ritz-Carlton

The course will be held at the Ritz-Carlton hotel.

Address: 168, Jalan Imbi, Kuala Lumpur 55100 Malaysia.
www.ritzcarlton.com.

The lecturers

The lecturers include explosion experts Dr. Kees van Wingerden, Dr. Prankul Middha and M.Sc. Lars Rogstadkjernet.

Their main activities beside training courses include explosion modelling, explosion analyses, accident investigations and standardization work.

Lecturers may be altered within GexCons range of explosion experts.



GexCon www.gexcon.com is an R&D and consulting company specializing in industrial explosion risk. 30 years of dedicated experimental research in the field of explosion safety has been carried out in parallel to the development of the commercial CFD-software FLACS for explosion and dispersion calculations. GexCon offers highly qualified services and explosion consequence software worldwide.