

Educational course on oil and gas fires

“Frontline knowledge on experience
and calculation tools”

Main theme:
Fire water and large fire deluge experiments

Trondheim
3-5 September 2012

We are looking forward to repeating last year's success, and would like to invite you to a three-day educational course in Trondheim, Norway.

The main theme is fire water and deluge, and the course will include a demonstration of a full-scale fire deluge test at SINTEF NBL's test site at Tiller, Trondheim.



A member of the Lloyd's Register Group

SINTEF NBL, Scandpower and ComputIT would like to invite you to a three-day educational course on *frontline knowledge on prediction and calculation of the characteristics of oil and gas fires*.

The main theme of the course is *fire water, large fire deluge experiments and modelling of fire water scenarios*.

The course will include a demonstration of a full-scale fire with deluge at SINTEF NBL's test site at Tiller, Trondheim, where the participants will see, hear, feel and smell the effect of a large fire with a release rate of about 3 kg/s (approximately 120 MW).

Lectures will be given by representatives of SINTEF NBL, Scandpower and ComputIT, and an industry representative will give a lecture on fire water.

The course will be held over a period of three days; it is possible to participate on Days 2 and 3 only.

Fire course 2012 programme outline

Day 1: Basic theory and experience

The main area of focus on Day 1 is the basics of fire physics to provide a proper understanding of the phenomena. This includes combustion theory, heat transfer, different fire scenarios, and construction response to fire. Furthermore, we will teach you how to obtain a fire frequency picture, which is the basis for the fire risk analysis. Day 1 will be divided into the following main sections:

09:30-12:00	Introduction to combustion theory
13:00-15:00	Heat transfer and types of fire scenarios
15:00-16:00	Structural response
16:00-17:00	QRA Part 1: Modelling of transient leaks, leak frequency and ignition probability

Day 2: Calculation tools and large fire deluge experiment at SINTEF NBL

Day 2 will concentrate on simple and more advanced approaches to calculating heat loads from fires and structural response. Different calculation tools will be discussed, and the concept of CFD will be explained. Special focus will be placed on demonstrating through examples the advanced CFD tool Kameleon FireEx KFX[®], developed by ComputIT. During the lecture, a simple fire case will be set up in KFX[®] to illustrate how to work with this tool, and KFX[®] simulations of large-scale fire deluge experiments will be presented and discussed. Finally, we will go by bus to SINTEF NBL's test site to experience the fire test. Day 2 will be divided into the following main sections:

09:00-11:00	Calculation tools for heat load and response
11:00-14:00	Advanced tools, basics about CFD and demonstration of use
14:00-15:00	Active fire protection systems
15:00-18:00	Introduction to the large-scale fire deluge test, transport to SINTEF NBL and performance of the test

Day 3: Fire water

The last day will feature a summary of the fire test from the previous day and a look at both measured and simulated results from a similar test. We will also look at how platforms are divided into different areas, how heat loads are dimensioned, and how fire water is taken into account in the QRA. A large portion of the day will focus on this year's main theme, fire water, and a representative of the industry will take part and give a lecture. Day 3 will be divided into the following main sections:

09:00-11:00	Summary of the fire test from Day 2 with results and simulations
11:00-14:30	QRA (main areas, fire areas, heat load dimensioning) and fire water
14:30-15:00	Summary and discussion

Fire course 2012

Location

The course will be held at the brand-new Clarion Hotel & Congress located at Brattøra in Trondheim (<http://kart.gulesider.no/m/9lBe3>).

Dinner

We have the pleasure of inviting you to a dinner at the hotel at 7:00 pm on Monday, 3 September (the first day of the course). We hope you will join us for informal discussions in a relaxed atmosphere.

Participation fee

Full three days, including dinner:	NOK 18,000
Days 2 and 3 only, including dinner:	NOK 15,000
Discount for registration before 28 June:	NOK 1,000

Registration

Please register at https://www.deltager.no/fire_course_03092012 before 1 August.

Deposit charged at registration: NOK 4,000

Invoice for the remaining amount will be sent, by e-mail, early in August.

Cancellation

Fee for cancellation after 1 August: NOK 4,000

Cancellations after 17 August will be charged in full.

Contact

If you have any questions, please contact Anette Mjøen or Petter Aune. Phone: (+47) 73 89 59 00. Email: anette.mjoen@computit.no / petter.aune@computit.no.

Hotel

For bookings please phone (+47) 22 33 42 00. Please refer to the conference at Clarion Hotel & Congress Trondheim, booking code "000169", to get the special conference rate of NOK 1,295.