



# Fire Systems Integrity Assurance (FSIA) in the Oil, Gas and Petrochemical Sectors

## Training Workshop

**12<sup>th</sup> – 15<sup>th</sup> July 2010**

### **The Venue:**

**Shangri-La Hotel, Singapore**  
22 Orange Grove Road  
Singapore 258350

Organised by Resource Protection International  
Walker House  
George Street  
Aylesbury  
Bucks HP20 2JH  
United Kingdom



Project Coordinators

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# Resource Protection International

**Delegates will learn about all aspects of the FSIA process and receive guidance on performance standards, testing and maintenance of all fire system types.**

Resource Protection International is an independent consultancy specialising in Fire Hazard Management (FHM) of oil and petrochemical facilities. The company has a management team of full time consultants comprising individuals with complementary expertise. The team's skills and knowledge include fire science, fire systems engineering, process engineering, fire protection/safety systems auditing, hazard assessment, major incident fire fighting, system commissioning and training, all based on extensive international "hands on" experience including Management of Fire Brigades at Oil Production and Storage facilities on behalf of major international oil companies.

Resource Protection International holds a unique position in the industry and has carried out several contracts for industry bodies as well as individual oil companies:-

- Project Coordinator for the LASTFIRE study - an industry initiative by 16 oil companies to review the risks associated with fires in large floating roof storage tanks. This project is currently being updated and extended to other tank types.
- Development of The International Oil and Gas Producers' Association Guidance document on Fire Systems Integrity Assurance (FSIA)
- Revision of Energy Institute (Formerly Institute of Petroleum) Model Code of Safe Practice on Fire Protection of Refineries and Bulk Storage Terminals.\*
- Development of The Society of Gas Tanker & Terminal Operators (SIGTTO) guidance on Fire Hazard Management of Gas Terminals.
- Storage Tank Terminal Fire Hazard Management audit protocol and technical guidance for Rotterdam Europoort Unified Fire Brigade.

## Fire Systems Integrity Assurance Workshop

**Delegates will learn how to develop and monitor performance based standards for fire systems in line with latest international good practices**

### Fire Systems Integrity Assurance

Fire Systems Integrity Assurance is the process of identifying fire system performance standards decided upon in design and checking they are appropriate to foreseeable hazardous events. FSIA then deals with ensuring they are not compromised in the later phases of the life of a facility, particularly installation, operations and maintenance, and confirming that they meet the requirements on an ongoing basis.

This workshop is designed specifically to assist facility operators and fire responders ensure that Fire Systems they use are fit for purpose and operate in accordance with their design intent.

### Background

Experience has shown that fire detection and protection systems are not always designed in sufficient detail to ensure that they meet the performance criteria necessary to reliably achieve their intended role. In some cases this role is not even clearly defined. The problem is compounded because often the system designer or specifier has not had the operational experience or feedback necessary to ensure system practicability. Also, as fire systems do not provide a direct contribution to production and revenue, they are sometimes not given the specification, inspection or maintenance priorities that they deserve.

This situation can result in fire systems not providing the performance required when called upon to do so. Obviously this is unacceptable, especially when safety critical systems such as offshore helideck foam systems are involved.

**Recognising this situation the Oil and Gas Producers' Association commissioned Resource Protection International to develop a Guidance Note on the overall process of Fire Systems Integrity Assurance (FSIA).**

Resource Protection International has assembled a team of talent having worldwide experience and knowledge of fire systems based on "hands on" experience of specifying, testing and using such systems. This unique workshop will provide comprehensive, in-depth information on all aspects of the FSIA concept and procedure. The programme has been developed from the worldwide experience of RPI and is based on the guidance provided in the Oil and Gas Producers' Association publication. As well as describing the FSIA process, the workshop provides experienced based guidance on the specification, testing and maintenance of all types of fire detection and protection systems.

## Workshop Senior Lecturer

*All seminars and courses directed by Resource Protection International aim to give delegates a thorough understanding of the subjects discussed. If required, tailor-made additional specialist training can be provided at a client's own facility.*

### Paul Watkins

Paul Watkins is a graduate of Fire Science from the University of Leeds in the United Kingdom. With Resource Protection International he specialises in Emergency Planning and Systems Engineering and has developed and delivered seminars on a wide range of fire engineering and Risk Analysis topics at venues including the Fire Service College in the U.K. and the Fire Protection Association. He is responsible for carrying out fire modelling and Quantitative Risk Assessments (QRA) and as part of an industry project involving 16 oil companies, ('LASTFIRE') developed a Risk Workbook to assist in the development of Fire Hazard management policies for large floating roof tanks. He also developed a Fire Hazard management audit tool for storage tanks on behalf of a joint industry/public funded Fire Brigade operating at one of Europe's most critical oil/petrochemical areas.

The Supporting lecturer joining Paul Watkins to deliver this workshop will be selected from Resource Protection International's team of talent having worldwide experience and knowledge of fire systems based on "hands on" experience of specifying, testing and maintenance of fire detection and protection systems.

## Workshop Information

### The Workshop will be held at:

Shangri-La Hotel Singapore, 22 Orange Grove Road, Singapore 258350 [www.shangri-la.com](http://www.shangri-la.com)

Delegates are responsible for booking and paying for their own hotel and travel costs (except lunches and refreshments provided during workshop session).

Delegates wishing to book accommodation at the Shangri-La hotel should contact the hotel direct Tel: ++(65) 6737 3644 Fax:++(65) 6737 3257 / 6733 1029 email: [sls@shangri-la.com](mailto:sls@shangri-la.com)

### Fees

The workshop fee is £2,150 (Pounds Sterling) payable prior to the event (plus VAT for UK Companies).

The Workshop fees include instruction, lecture notes, lunches and refreshments during breaks in classroom tuition.

All classroom exercises and discussions will be supported and complemented by case histories and video and slide presentations. Course notes will be provided and will form a comprehensive reference source of great value to all delegates on return to their job location.

### Who Should Attend the Workshop?

- Fire Responders and Fire Engineers
- Fire System Maintenance Engineers
- Loss Prevention Engineers
- Health, Safety and Environmental Protection Professionals
- Legislative Authorities responsible for Health, Safety and Environmental issues

**A booking form is attached to this programme.**

# Fire System Integrity Assurance Workshop Programme

All lectures will be supported by video and slide presentations and design examples

12<sup>th</sup> – 15<sup>th</sup> July 2010

## Workshop Hours

**Monday:** Registration at 9:00 am for 9:30 am start (5.00pm finish)

**Tuesday/Wednesday :** 9.00 am – 5.00 pm

**Thursday:** 9.00 am – lunchtime (lunch is included)

## Fire System Integrity Assurance Programme

Delegates will learn about all aspects of the FSIA process and receive guidance on performance standards, testing and maintenance of all fire system types.

Delegates will learn how to develop and monitor performance based standards for fire systems in line with latest international good practices

- Registration and Introduction
- FSIA process steps and background to OGP Guidance
- Fire hazard identification
- Fire types and effects

- **Fire and Gas Detection Systems**
- **Gaseous Extinguishing Agent Systems**
- **Dry Chemical Systems**

- Types and applications overview
- Critical Performance Criteria
- Testing requirements
  - Standards
  - Procedures
  - Schedules
- Typical Site Issues

- **Foam Systems**

- Types and applications overview
- Critical Performance Criteria
- Testing requirements
  - Standards
  - Procedures
  - Schedules
- Typical Site Issues

- **Water Spray Systems**

- **Sprinkler Systems**

- **Water Mist Systems**

- Types and applications overview
- Critical Performance Criteria
- Testing requirements
  - Standards
  - Procedures
  - Schedules
- Typical Site Issues

- **Fire Pump Systems**

- Types and applications overview
- Critical Performance Criteria
- Testing requirements
  - Standards
  - Procedures
  - Schedules
- Typical Site Issues

- **Firewater Systems**

- Developing Scenario based demands
- System discharge tests
- Testing Requirements
- Assessing test results
- Training and Exercising
- Developing Site Specific Procedures and Record Keeping



The Oil and Gas Producers' Association Guidance Note on FSIA is available on website [www.ogp.org.uk](http://www.ogp.org.uk)

The process described in it will be expanded and explained during the workshop

# Fire Systems Integrity Assurance Workshop (FSIA) SINGAPORE 12<sup>th</sup> – 15<sup>th</sup> July 2010 Booking Form

Please regard this Booking Form as an Invoice. A receipt will be issued only on request. Payment is required prior to the event.

*Please book early to avoid disappointment as spaces are limited. This form can be copied for additional delegates.*

*Resource Protection International reserve the right to cancel the event in which case a full refund of any fees received will be given.*

FULL NAME \_\_\_\_\_

TITLE \_\_\_\_\_

JOB FUNCTION \_\_\_\_\_

ORGANISATION \_\_\_\_\_

ADDRESS \_\_\_\_\_  
\_\_\_\_\_

COUNTRY \_\_\_\_\_

POSTCODE \_\_\_\_\_

TEL \_\_\_\_\_

FAX \_\_\_\_\_

EMAIL \_\_\_\_\_

## Fire Systems Integrity Assurance in the Oil, Gas and Petrochemical Sectors Training Workshop – SINGAPORE

**12th – 15th July 2010**

The cost per delegate is £2,150

Plus VAT for UK companies at the applicable rate:

15% up to 31st December 2009 making total payable £2,472.50 **or**

17.5% from 1<sup>st</sup> January 2010 making total payable £2,526.25

I ENCLOSE A CHEQUE FOR £ \_\_\_\_\_

Made payable to Resource Protection International

*(Payments can be made by bank transfer - please ask for details.)*

SIGNED \_\_\_\_\_

Return forms, along with appropriate fees, to: Resource Protection International

Walker House, George Street, Aylesbury, Buckinghamshire HP20 2JH,

United Kingdom

UK Co Reg No: 2753740.

If you have problems  
printing this form,  
or need further details...

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## IMPORTANT

**Registrations** shall only be confirmed on receipt of payment

**Cancellations**, if notified in writing 45 days prior to the event will be subjected to a 10% administration charge. There will be no refunds for cancellations received less than 45 days prior to the event.

**Substitutions** can be made at any time, without charge



Project Coordinators

