



# BUNKER TRADING, PRICE RISK MANAGEMENT & OPERATIONS

23 – 25 November 2015 | Singapore



## Course Directors:



## **Peter Hills**

Peter Hills has more than 40 years' experience in the downstream oil industry, combining a background of physical oil supply, trading and refining management with energy price risk management skills.



## **Charles Daly**

Charles has spent a lifetime in the downstream oil business, working for many years in BP and Ultramar, initially in research then in logistics and refinery supply and subsequently in developing business internationally.





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#### About the Course

Players in the global shipping industry are constantly grappling with ways to retool their business in a constantly changing business environment. Fuel is a major cost component for shipping companies, and it is the most volatile component within the business model. For now, lower revenue can be partially offset by lower bunker prices; however, when fuel prices head back up, ship operators need to protect against rising business costs. Fuel price and key risk management strategies can have a profound influence on everything from short term cash flow to overall financial performance.

Managing exposure requires an in-depth knowledge of the complexities of the energy and financial markets and access to all the right information. This comprehensive 3 day course in collaboration with Channoil will provide you with a sound working knowledge of international bunker trading, applied risk management and related business activities.

#### By attending this 3 day training course, you will be able to understand

- The process of converting crude oil into bunker fuels
- Pricing of bunker fuels
- Trading techniques and understanding contracts
- Price risk management for bunker fuels suppliers and users.
- Measurement and quality control of bunker fuels
- Bunker fuels trading simulation

#### Who Should Attend

- Ship's Chief Engineers and bunker barge operators
- Bunker buyers at shipping companies
- Bunker terminal operators and managers
- Port Authority staff
- Bunker traders
- Financial officers, corporate risk managers and accounting staff

#### This training course has a limited attendance for up to 20 participants only.

Sessions commence at 9am on all days, with short intervals at 10.30am and 3.30pm respectively.

Refreshments will be provided in the short intervals.

Lunch will be provided at 12:30pm for 1 hour. Sessions will end at 5pm on all days.

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#### DAY 1

#### Session 1 INTRODUCTION

- •••
  - Overview of the course and objectives ••• Industry Jargon
    - Trading and shipping terms
    - Units of measurement & price units 0

### Session 2

#### **OIL MARKETS & OIL TRADING**

- \* Global supply and demand; major bunker fuels markets
- ÷ Regional balances, trade flows and market drivers
- ••• Physical, forwards, futures and derivatives markets
- ••• Why trade?

#### Session 3

#### **CRUDE & OIL REFINING**

- Crude oil types and origin, crude oil assays •••
- ٠ Key Processes and products/ components generated
- ••• Distillation; atmospheric and vacuum
- ∻ Molecular restructuring/ reforming
- \* Conversion-cracking and visbreaking
- ÷ Hydrofining and Sweetening

#### Session 4

- **CRUDE OIL VALUATION** 
  - ٠ **Objectives of Refining**
  - Basic Refinery Economics; GPE, Netbacks,  $\div$ Refining margins and Crude Valuation

#### **EXERCISE 1: GPW CALCULATION**

#### (Lunch)

Session 4 (Cont)

## **SHIPPING / FREIGHT**

- Tankers types and characteristics ٠
  - Worldscale system ٠
  - Shipping economics
  - ٠ Basic principles of chartering and types of charter; lay-time and demurrage
  - ••• Bunker fuels

#### **EXERCISE 2: FREIGHT and NETBACK EXERCISE**

#### Session 5

\*

#### **OIL PRODUCTS / BLENDING**

- Main finished products, their uses and main quality parameters
- \* **Blend-Stock Qualities**
- ÷ Principles of Blending: linear and non-linear properties •••
  - Fuel Oil Blending

#### Session 6

#### **OIL PRICING MECHANISMS**

- Crude and product price markers and formula \*\* pricing
- ÷ Flat prices, differentials, pricing periods
- ••• Influence of global prices on local markets ••• Price reporting, price assessments and
- methodology

#### **EXERCISE 3: FUEL OIL BLENDING BRIEFING**

#### THREE DAY DETAILED COURSE OUTLINE

#### DAY 2

Introduction and Recap of Day 1 **EXERCISE 3: FUEL OIL BLENDING** Session 1

#### **PURCHASE & SALE CONTRACTS**

- Types of sale: FOB, CIF, Delivered, DAF, DDU, ••• DFS
- ••• Responsibilities of seller and buyer; contract structure
- ••• General Terms and Conditions, standard provisions in GT&Cs
- \*• Key clauses, disputes and claims
- ÷ INCO

#### Session 2

- DOING A DEAL
  - ••• Mechanisms •••
  - Kev issues Confirmations
  - ÷
- Session 3

#### **EXERCISE 4: NEGOTIATION - SALE & PURCHASE of FUEL OIL CARGO**

#### **NON- TANKER LOGISTICS**

- ••• Storage Roles
- ••• Oil Terminals; value to the trader; key terms and conditions

#### Session 4

#### FORWARDS AND FUTURES MARKETS

- \* How they have evolved; role in oil trading; importance in price discovery
- ••• Key markets: BFOE contract, partials, book-outs; Dubai/Oman, WTI, (Tapis)
- ÷ Futures exchanges and futures contracts; operation and use
- ••• Summary of crude, gasoil and gasoline futures contracts

#### Session 5

#### PRICE RISK, LONG & SHORT

- ••• Market price risk
- Long & Short

(Lunch)

#### Session 6

**EXERCISE 5: LONG & SHORT (CLASS)** 

#### HEDGING

- Introduction to hedging and hedging tools; Basis ÷ Risk
- ÷ Use of Futures for hedging price risk; benefits and limitation
- ••• Swaps and options

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#### DAY 3

Introduction and Recap of Day 2 **EXERCISE 6: BASIS RISK – HEDGING WITH FUTURES & SW/ΔPS** 

#### Session 1

#### MARKET STRUCTURE AND TRADING STRATEGIES

- ••• Forward Price Curve; Contango and Backwardation
- ••• Price differentials
- ÷ Spread trading and crack spreads

#### Session 2

#### ARBITRAGE TRADING Terms

- \* General Principles and examples
- $\dot{\cdot}$ Inter-regional Fuel Oil Trade
- ••• Hedging Tools

### **EXERCISE 7: FUEL OIL ARBITRAGE**

BUNKER FUELS REGULATIONS

**Future Developments** 

**BUNKER BUSINESS PROFITABILITY** 

Sales and Marketing

Payment and Credit

Cost Control/Working Capital

**Operations and Measurements** 

Measuring and Monitoring Risk

Management Authority and

COURSE RECAP, DISCUSSIONS and

**Alternative Fuels** 

Supply Sourcing

**MANAGEMENT ISSUES** 

and Exposure

Legal Claims

Control

Marpol Regulations and SECA's

(Lunch) Session 3

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Session 6

FEEDBACK

**Closing Remarks** 

Session 5

Session 4

**STANDARDS** 

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## Peter Hills

Peter Hills has more than 40 years' experience in the downstream oil industry, combining a background of physical oil supply, trading and refining management with energy price risk management skills.

He began his career at Amoco UK, where he held a series increasingly senior roles ending as Supply Operations manager. He left Amoco in 1979 and took up a variety of senior positions in international supply

and trading oil companies and independent traders, and he was at one time managing director of P&O Oil Trading. Between 1990 and 1995 he managed the London energy futures and derivatives broking group for ED & F Man International and for most of that period he was a director of the International Petroleum Exchange in London.

Since 1995 he has operated as an independent consultant, advising clients on international oil markets and related business development projects. From 2003 he was Business Development consultant for Nordic Storage AB, an oil storage company based in Scandinavia. His role encompassed liaison and negotiation with international overseas clients based outside Scandinavia and the development of new storage capacity for Nordic.



## Charles Daly

Charles has spent a lifetime in the downstream oil business, working for many years in BP and Ultramar, initially in research then in logistics and refinery supply and subsequently in developing business internationally.

As well as working in the Netherlands, USA and Canada, he has in more recent years been based in London, where he has held senior management positions in a number of companies in the refining, supply/logistics, shipping and oil trading sectors.

An international oil market expert and consultant to established and emerging companies, he is a recognised authority on oil supply markets in the Middle East, the Mediterranean and Russia. He has also been actively engaged in many business restructuring projects around the world. Charles has extensive knowledge of financing and of legal matters pertaining to the oil industry and he is regularly called upon to serve in court as an expert witness in legal cases. He was a founder member, and the first vice-chairman, of the UK's International Petroleum Exchange and he has lectured on a wide range of oil-related subjects all over the world.



**petro**<u>EDGE</u><sup>®</sup> delivers energy industry skills-based training courses in major cities around Asia, catering for every stage of your organisation's development path. Since our inception, we have provided wide range of management development training, business strategy and technical skills training courses to over 100 leading international corporations and government establishments.

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Maersk Drilling Maersk Oil Qatar Malakoff Corporation Berhad Malaysia LNG Malaysia Marine & Heavy Engineering Malaysia-Thailand Joint Authority Media Chinese International Mid-Continent Equipment Group Pte **MISC Berhad** Mitsui Oil Exploration Co. MMS (Insurance Brokers) **Murphy Oil Corporation** National Healthcare Group Nations Petroleum (SE Asia) Newfield Peninsula Malaysia Inc. Nipon Oil Exploration (Malaysia) Oceaneering International Offshore Geo-Surveys **Optimal Chemicals (M) Optimal Olefins (M)** PC Vietnam **PCPP Operating Company** Pearl Energy (Nam Conson) PERMATA Permata - PMTSB Pertamina Learning Center PetroEnergy Resources Corp. Petrofac Malaysia Limited Petroleum Insitute of Thailand Petroleum Well Logging Co. Petrolux **PETRONAS Holdings PETRONAS** Carigali **PETRONAS Carigali Vietnam Limited** Petronas Dagangan Berhad **PETRONAS Gas** PETRONAS Methanol (Labuan) PETRONAS Penapisan (Melaka) Petrousaha Engineering Services Petrovietnam Drilling & Well Services **Powertium Marine** Premier Oil Indonesia PT Halliburton Indonesia PT Medco E&P Indonesia PT Pertamina (Persero) Head Office

PT Perusahaan Gas Negara PT PLN (Persero) Kantor Pusat **PTT Exploration & Production PTTEP International Limited** PTTEP Iran Company Limited PTTEP Oman Company PVD Offshore Services Co. **Ranhill Engineers & Constructors** Rhodia Asia Pacific Pte Repsol **Royal Norwegian Embassy** Sabah Shell Petroleum Co Sapura Energy Sapuracrest Petroleum Berhad Sarawak Shell Berhad Saudi Arabian Oil Company Saudi Basic Industries Corp Schlumberger Oilffield (S) Pte Scomi Oiltools Shell Eastern Petroleum Shell MDS (Malaysia) Shell Saudi Sime Darby Plantation Sdn Bhd Singapore Petroleum Co. **SN** Aboitiz Power **S-Oil Corporation** Talisman Malaysia Tately N.V. Technip Geoproduction (M) Teknik Janakuasa **Temasek Holdings Pte** Tenaga Nasional Berhad Thang Long JOC **TL Offshore** Total (China) Investment Co. . **TOTAL E&P Indonesia** Trans Thai Malaysia **Transwater API** Tri-M Technologies (S) **Truong Son JOC** UMW Standard Drilling University New South Wales Vastalux Vinyl Chloride (Malaysia) YTL Power International Berhad



## IN-HOUSE TRAINING SOLUTIONS

**petroEDGE**<sup>®</sup> focuses on skills development in 3 main areas – Engineering, Management and Strategy for Upstream Exploration and Production Business.

Our In-House Training Solutions Team offer a full spectrum of short courses, curricular competency based solutions that can be customised to your long term and short term business needs.

## Types of In-House Programmes offered FUNDAMENTAL PROGRAMMES

Introduction to Exploration & Production + Drilling Essentials + LNG Fundamentals Introduction to FPSO + CBM & Shale Gas Technical Fundamentals

## **TECHNICAL PROGRAMMES**

Operations Geology (Level 2) \* Basin Analysis (Level 2) \* HPHT Well Engineering Deepwater Well Engineering \* Deepwater Well Operations \* Well Intervention Well Integrity Management (Drilling & Production) \* HAZOP Assessment & Leadership HPHT Completions Techniques \* Well Operations and Maintenance \* Stuck Pipe Prevention & Fishing Train-the-Trainer: Gas Processing Level 1 \* Train-the-Trainer: Gas Processing Level 2

## **MANAGEMENT & SOFTSKILLS PROGRAMMES**

Technical Report Writing & Presentation Skills \* Writing Standard Operating Procedures EPCIC Contract Management Techniques \* Advanced Budgeting & Forecasting in Oil & Gas E & P Accounting \* Finance for Non-Finance \* Leadership & Team Dynamics

## **"TRAIN-THE-TRAINER" PROGRAMME**

The "Train-the-Trainer" program has proven to be one of the most *cost effective* methods for embedding the process of delivering and facilitating crucial training programmes within your organisation in terms for *sustainable skills and knowledge development*.

"Train the Trainer" programme and its specific deliverables provide in-depth concept knowledge, instructor training, and facilitation skills. This experience prepares select employees to become internal Program Leaders, licensed to teach internally. The internal trainer can play a critical role in developing and implementing programs that align the organization for success.

This programme will be a carefully designed approach for sustainable and effective organisational improvement. The roleout will reflect the immediate on and on-going challenges faced within your organisation.

## CURRICULUM DEVELOPMENT PROGRAMME SERVICES

With the constant changing of business environment and volatile economy, every company, big or small, needs to stay abreast of the rapidly evolving developments and acquire new competencies in order to stay competitive. Our key pool of trainers, industry experts and consultants are available to develop a *Curriculum Development* training programme to help you attain relevant competencies in the area that is most needed.

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petroEDGE® boasts an unrivalled teaching faculty. All of our partners and consultants have extensive management and technology experience coupled with a track record in delivering high quality courses to professionals in leading oil majors globally.

In addition to individual consultants and trainers, **petroEDGE**<sup>®</sup> also works closely with 2 major training partners, namely: -

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PETRONAS Leadership Centre (PLC), started as an internal training department in 1979. Over the years, we have established ourselves as a top corporate learning hub for industry leaders, serving the Oil & Gas sector in Malaysia and beyond. Backed by over 30 years of experience and our deep passion for excellence, PLC has robust tools and Learning and Development know-how to help leaders transform and enhance their leadership skills. This is supported by the TRANSFORMING LEASERS resources of PETRONAS and its firm belief in the importance of human capital development. For further information

on PLC, visit www.petronasleadershipcentre.com.my.

#### **ROBERTSON CCG**

ROBERTSON A CGG Company

The Robertson Training Centre was established in 1990 to provide a comprehensive range of upstream training programmes for the international petroleum industry. With a portfolio of over 70 courses, training has been given to personnel from over 120 companies and delivered in more than 45 countries. The Centre has now gained a reputation for the quality of its product. Robertson is unique in the oil and

gas training field in that by using our in-house experts, we can design and present training programmes of any length in virtually any global location. In addition to five day short courses, the Centre's most effective training programmes, delivering real skills transfer, are in-company workshops using client data. Given over 6-12 weeks, these workshops teach technical skills in exploration, development and production, project planning and management, teamwork and presentation skills. Long term training on a one-to-one basis is also offered for periods of up to 6 months.

petroEDGE<sup>®</sup> are members of the esteemed Energy Institute and the CPD Certification Service. We also proud to be have been inducted as an approved training provider of Institute of Leadership & Management for 4 of our training programmes. This highlights the confidence given to the quality of our trainings courses.



The CPD Certification Service helps organisation provide certified CPD and acts as a point of contact for those seeking to obtain certified CPD material. It supports further learning initiatives being undertaken by Government, professional institutions, trade associations, individual organisations, training providers, suppliers and so on.

For more information, visit www.cpduk.co.uk.



The Energy Institute (EI) is the professional body for the energy industry, delivery good practice and professionalism across the depth and breadth of the sector. The purpose of the EI is to develop and disseminate knowledge, skills and good practice towards a safer, more secure and sustainable energy system.

In fulfilling this purpose the EI addresses the depth and breadth of energy and the energy system, from upstream and downstream hydrocarbons and other primary fuels and renewables, to power generation, transmission and distribution to sustainable development, demand side management and energy efficiency. A Royal Charter membership organisation, the Energy Institute provides a wealth of expertise in energy matters, serving as a home for energy professionals and a scientific and technical reservoir for industry. It is licensed by the Engineering Council to offer Chartered, Incorporated and Engineering Technician status to engineers and also by the Science Council and Society for the Environment to offer registration as Chartered Scientist and Chartered Environmentalist.

The El is an international organisation serving its members in around 80 countries. For more information, visit www.energyinst.org.



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Our programmes approved by ILM are: International Oil & Gas Executive Development Program 2013, Human

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<b>SINGAPORE</b> 23 – 25 November 2015	SGD4,400		SGD4,600		petroEDGE recognises the value of learning in teams. Group bookings at the same time from the same company receive the following: 3 or more at 5% off 5 or more at 5% off 8 of more at 10% All other promotions including early bird are exclusive of the group discount.

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