PETROLEUM REVIEW

IP THE INSTITUTE OF PETROLEUM

March 1997

IP Week
Governor of the Bank of England Eddie George addresses the Annual Dinner

Lucio Noto, Chairman, Mobil Corp, speaks out in London

Downstream mergers
BP and Mobil get together, while Gulf, Elf and Murco form a threesome

Petroliana
To be treasured not trashed

THE INSTITUTE OF PETROLEUM

Cadman Memorial Lecture

Tuesday 29 April

The Gibson Hall,
Bishopsgate,
London EC2 at 16.30 for 17.00

'Power, Competitiveness and Responsibility'

Sir David Simon CBE,
Chairman
The British Petroleum Company plc

Admission, which will be strictly by ticket only, is free of charge.

Tickets and further information are available from:

Pauline Ashby
The Institute of Petroleum
61 New Cavendish Street
London
W1M 8AR UK

Tel: 0171 467 7100
Fax: 0171 255 1472

THE INSTITUTE OF PETROLEUM

International Conference on

'The Impact of Improved Catalytic Processes on Refinery Economics'

To be held at the Institute of Petroleum

Thursday 10 April

The major refinery upgrading processes in use today depend for their success on the performance of catalysts. Yields and product qualities achieved with the right catalysts and processes are all important to the end results. In recent years, constant improvements to the catalysts themselves, and to the technology used in applying them, have been of major benefit to overall refinery economics.

Speakers at this international conference will update the audience on the remarkable results achieved by catalyst manufacturers, process licensors, contractors and oil companies, with a look also at future prospects for even greater improvements and an academic background to what makes it all possible.

Who should attend?
In a world of tightening refining margins and increasingly stringent environmental product specifications, all those concerned with this area of the industry should hear the latest developments for themselves — whether they are concerned with the nuts and bolts of the business or just the accumulation of those dollars (Euros?).

For a copy of the programme and registration form, please contact:

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London W1M 8AR UK

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COVER PHOTO
A typical scene in Oxford Street, London
Photo by Emma Parsons.

News in Brief

21 January

Repsol and Amoco have signed a new exploration contract with the Ministry of Energy and Energy Industries for Trinidad and Tobago relating to block 5b located some 90km to the east of Trinidad.

The Bayu #5 appraisal well on the Phillips Petroleum Company-operated block ZOCA91-13 has encountered a 184-foot gross reservoir column with the same gas-water contact found in the previous Bayu-Undan wells, confirming the southern extension of the reservoir.

Production has begun from Elf Exploration UK's Iona field in block 15/17 of the North Sea. The field is being developed through deviated wells drilled from the Saltire A platform.

22 January

Kvaerner John Brown Ltd has won a $30m contract for the expansion of Jilin Chemical Industrial Corporation's oxo alcohols plant at Jilin City in China.

Dana Petroleum has completed the drilling of three further oil production wells in its South Vat-Yoganskoye oilfield in Western Siberia. The wells are currently being flow tested and tied into the main export pipeline.

23 January

Marathon Oil UK Ltd is to sell its interest in the Vulcan and South Valiant units of the V-fields in the Southern Gas Basin to operator Conoco for an undisclosed sum.

24 January

Norsk Hydro has awarded a NOK300m contract to Bentec Norge for the construction of a drilling module for the Oseberg Syd platform.

Mobil is to sell its non-operated exploration concessions in Egypt's Western Desert to Apache for an undisclosed sum, reports *Lloyd's List*.

27 January

Stolt Comex Seaway has secured a $23m contract from Statoil for the installation of umbilicals and service lines on the Åsgard and Gullfaks fields in the Norwegian sector of the North Sea. Seaway Condor will begin flowline installation in 1998. The programme will continue into the year 2000 with possible further extensions.

Maritime Hydraulics is to supply a double RamRig drilling package worth some NOK280m to a new drill ship due to be leased to Statoil by Smedvig. The unit will allow the vessel to perform two drilling jobs simultaneously.

28 January

Racal has acquired US survey service and navigation software products company Pelagos Corporation for $2.5 million.

Repsol, Gas Natural and Iberdrola are to develop jointly a number of energy projects following the signing of an Industrial Agreement. Agreed areas of collaboration include a stake of up to 50 percent in new oil and gas-powered electricity production projects as well as in existing plants; energy projects abroad, principally in Latin America; and the securing of gas supply.

Elf Petroleum Norge has selected Amec Process and Energy as the main contractor for technical support on its Frigg, Heimdal and Frøy North Sea installations. The NOK150m contract will initially run for a three-year period with an option to extend by a further two years.

Enterprise Oil and Pennzoil have discovered oil in the Garden Banks 161 No 1 well in the Gulf of Mexico. The two companies formed an alliance last September to jointly explore prospects on 102 of Pennzoil's leases in the Gulf of Mexico where the company's working interest is 50 percent or more.

29 January

Enterprise Oil and Agip have announced that the appraisal well on the Cerro Falcone oil discovery in the South Apennine area of Italy has tested 32°API oil at a stabilised rate of 6,604 b/d. The well is to be put on long-term production test later this year prior to connection to the Val d'Agri production infrastructure.

30 January

Elf Aquitaine has announced the signing of a new exploration-production sharing contract with the government of the Syrian Arab Republic and Syrian Petroleum Company, pending ratification. The new permit covers a 4,200 square kilometre area in the northern part of the country.

31 January

The Thai government has appointed an international consortium led by Babtie BMT (Thailand) to set up a marine oil spill pollution control and monitoring programme for Thai coastal waters, reports *Lloyd's List*.

1 February

The Saga-operated Vigdis oilfield has come onstream some five months ahead of schedule and NOK600m under budget.

First gas has been produced from the Tantawan field in the Gulf of Thailand, according to *Lloyd's List*. The field is operated by US-based Pogo Producing Company.

3 February

Pacific Gas & Electric has announced plans to buy Texan natural gas transmission company Valero Energy in an all-share deal valued at $722.5m, reports the *Financial Times*.

4 February

The UK government has given its approval for the construction and operation of a 500MW gas turbine generating station adjacent to the Cottam power station site in Nottinghamshire. The facility will initally operate as a development and test centre for a new industrial gas turbine aiming to demonstrate that high thermal efficiencies combined with low emissions of nitrogen oxides are achievable.

The UK Health and Safety Executive and Department of Transport have agreed a new Memorandum of Understanding in respect of safety enforcement by the HSE, Marine Safety Agency and the Marine Accident Investigation Branch. The memorandum aims to improve the effective co-ordination of activities where their duties overlap in docks, ports, or inland waterway, offshore and in coastal areas. It replaces a previous agreement made in 1985, which did not apply offshore.

Shell UK Exploration and Production has awarded an engineering and maintenance services contract for its gas systems and plants business unit to Aberdeen-based Wood Group Engineering.

Total and Saga have announced a five-year deep-water exploration and production alliance on the Atlantic Margin. The two companies already have mutual interests in the area through Saga's acquisition of Santa Fe Petroleum.

6 February

Short-term trials to gain precise information on the burning of petroleum coke and coal are to be carried out at the UK's largest coal-fired power station at Drax, near Selby in Yorkshire. The Environment Agency requires testing of the fuel blend before consideration is given to any future application for its commercial use by National Power at the facility.

Phillips Petroleum has signed a contract with Perupetro to explore 3.1 million acres in southeastern Peru, reports *Lloyd's List*.

News in Brief

The UK government has granted operator BP Exploration approval for the development of the second phase of the Bruce gas condensate field in the northern North Sea. The plan consists of a 13-well subsea development, together with a new gas compression platform to allow reinjection of produced gas from the western area of the field.

Norsk Hydro has awarded a NOK170m contract to Grimstad-based DSND Subsea for a 25-km oil pipeline between Oseberg Øst and the Oseberg field centre. Installation is scheduled for spring/summer 1998.

7 February

Arco and Lukoil have signed documents formalising their Lukarco joint venture. The new company holds a 12.5 percent interest in the Caspian Pipeline Consortium which is constructing a 900-mile pipeline from the Tengiz oilfield in Kazakhstan to the Black Sea, making it the second largest oil company shareholder in the project. Lukarco also plans to acquire a 5 percent stake in the Tengiz oilfield subject to final negotiations with Chevron.

10 February

Norsk Hydro has awarded a NOK300m contract to Bentec Norge for the construction of a drilling module for the Oseberg Syd platform.

11 February

Taiwan's state-oil monopoly Chinese Petroleum Corporation has offered some $80m to United Arab Emirates-based Crescent Oil for a 40 percent stake in Crescent affiliate BGOI, reports the *Financial Times*.

The Australian government has given Woodside Petroleum the green light for the A$1bn development of the Laminaria and Corallina oilfields in the Timor Sea, according to *Lloyd's List*. The fields will be developed using the world's largest floating production, storage and offloading vessel, the hull of which is currently being built at Samsung in South Korea.

BP has announced a record breaking £2.62bn net profit before exceptionals for 1996, an increase of 30 percent over the previous year. Dividends were also up 30 percent. Despite losing some £85m on petrol retailing in 1996 as a result of the UK petrol pump price war, the company's UK downstream business still closed the year £57m in the black.

Lukoil has awarded a major contract to British oil and gas consultancy MAI for the provision of integrated prospect and economic evaluation software.

Aberdeen-based Seaforth Maritime has secured a £5m contract to provide all supply chain services to Chevron's Alba assets in the central North Sea.

12 February

India's Essar Oil Ltd plans to pull out of the offshore drilling sector in order to concentrate on onshore drilling activity, according to *Lloyd's List*.

Union Texas Petroleum Holdings has announced that it plans to enter into a number of new exploration ventures in Bolivia, Yemen, Jordan, Greece and Papua New Guinea during 1997, focusing attention on proven basins with emerging oil and gas plays rather than on the frontier areas in which it has been more active in the past. The company also expects to participate in 25 to 31 exploration wells, including exploration programmes at its producing ventures in the UK North Sea, Indonesia and Pakistan.

13 February

Amoco has announced a gas discovery on its offshore North Sinai concession in Egypt's Nile Delta that confirms that the Pliocene gas trend extends some 100km southeastwards from the Amoco-operated Ha'py field in the Ras el Barr concession. The Tao-1 well tested at 37.9 mncuft of gas per day.

14 February

The Sakhalin 1 Consortium has awarded Kvaerner a project management, engineering, procurement and construction management contract for the jacket and topsides of a production platform destined for use on the Arkutun Dagi field offshore Sakhalin Island in eastern Russia.

17 February

Mobil Exploration and Producing Turkmenistan Inc has joined the production sharing agreement between Monument Oil and Gas and the government of Turkmenistan to develop and explore opportunities in the Nebit Dag licence in western Turkmenistan. Under a separate agreement with the government of Turkmenistan, Monument and Mobil have also extended their exploration and producing programme to cover other opportunities in the same region.

Mitsubishi Oil and Showa Shell Sekiyu are reported to be considering a merger of their oil refining operations, according to the *Daily Telegraph*.

Dana Petroleum has entered into an agreement with SOC (Cyprus) Ltd to acquire 16,000 ordinary shares in Yogan-neft, a Russian open joint stock company, representing 20 percent of Yogan-neft's issued share capital. The deal is worth in the region of $3.25m. In addition, Dana has also entered in to a call option with SOC to acquire a further 40 percent interest in Yogan-neft for a consideration of $4.25m, conditional on the completion of the acquisition of the Yogan-neft shares.

18 February

Chevron and the Ghana National Petroleum Corporation have signed a letter of intent to supply Nigerian natural gas to the Volta River Authority's Takoradi thermal power plant project in Ghana. The deal is regarded as a significant step towards demonstrating the commercial viability of the proposed West African Gas Pipeline Project, the first major project in the region to utilise Nigeria's associated natural gas.

Fluor Daniel has secured a contract to provide engineering, procurement and construction management services for the modernisation, revamp and automation of Deutsche Shell's Grasbrook lube oil blending facility in Hamburg.

19 February

An agreement has been reached with the owners of UK North Sea licences P666, P362 and P188(S), containing the Elgin and Franklin fields, for the establishment of a single unit area. Fixed working interest entitlements are: Elf 46.173 percent; Agip 13.876 percent; BG 12.35 percent; Hardy 8 percent; Ruhrgas 5.2 percent; Shell 4.375 percent; Esso 4.375 percent; Texaco 3.9 percent and Arco 1.76 percent.

Gulf Canada Resources has been successful in its £494m cash takeover bid for Clyde Petroleum. The company now has 51.42 percent of Clyde shares under its control.

Newsdesk

New mobile petrol station to serve remote areas in Russia and eastern Europe

A new fully autonomous mobile service station has been designed specifically to serve motorists in remote rural areas of Russia and eastern Europe. The entire facility fits in to two international standard steel shipping containers – one holding the fuel storage tanks and the other the rest of the station, including a small shop and toilet.

Designed by Minale, Tattersfield & Acton of Richmond in the United Kingdom on behalf of Agip Petroli, the mobile station costs just 20 percent of a 'normal' outlet. The entire facility can be installed and operational on a prepared site within just 48 hours. Furthermore, the service station's modular system of inter-connectable units makes it easily adaptable for sites of varying sizes and requirements.

According to company Director Marcello Minale, the unit can hold up to 25,000 litres of fuel, enough to sustain a small village for three to six months.

The new system is currently on trial in Prague before its launch onto the Russian and eastern European market.

The 'wing' canopies on the new mobile station fold down for added security when the facility is not in use

Statoil offers staff PC training deal

Statoil has offered its 15,000 workforce the opportunity of having a home PC with associated peripherals and Internet access for two years in exchange for enrolling on an obligatory training programme that 'aims to strengthen employee skills in using PCs, the Internet and software'.

Other arrangements are being organised for overseas employees who wish to register on the scheme, while domestic employees will also have their conventional telephone subscription upgraded to an ISDN line.

Participants will be required to devote some of their own time to the programme.

Some 13,000 Statoil staff have decided to take the company up on its offer.

US company looks towards Russia

Avalon Oil, a US company based in Tulsa, Oklahoma, is seeking a listing on the London Stock Exchange. The aim is to obtain funds for its first foreign project, a joint venture with Orenburggazprom, a Gazprom subsidiary operating in the Orenburg region of Russia.

The joint venture company is Stimul, formed to boost the exploitation of known oil and gas reserves in part of the Orenburg field. It has a licence to develop and produce proven and probable reserves of 389 billion standard cubic feet of associated gas and 371 million barrels of oil. The field has the advantage of infrastructure facilities to produce and market the oil/gas already in place.

What the Russians lack is technical knowhow to boost recovery rates. Avalon Oil intends to utilise state-of-the-art flow drilling and completion techniques to drill some 160 horizontal producing wells and 50 vertical injection wells over the next six years, while the Russians will contribute local knowledge and experience.

John Wieczorek, Chairman, Avalon Oil, said, 'Without the use of these drilling techniques, it would not be possible to exploit this field economically.'

From a start three years ago, production levels have grown to just 2,850 barrels a day (b/d). However, new investment together with western technology should enable production to reach 18,500 b/d by 1998 and 50,000 b/d by the year 2000.

At present the crude is sold to two local refineries and none is exported. This may continue even when output is increased.

Italy buys Norwegian gas

The Norwegian Gas Negotiating Committee has concluded an agreement covering the sale of six billion cubic metres (bncum) of Norwegian gas per year to Italian gas company Snam.

The 25-year contract, worth some NOK90 billion at current prices, is one of the largest in Norway's gas history and represents the first ever sale of Norwegian gas to Italy, Europe's third largest market for natural gas after Germany and the United Kingdom. Italy consumed some 53 bncum of gas in 1995, a level forecast to reach 90 bncum/yr by 2010.

Deliveries will begin in 2000 and reach a plateau level in 2002. A total of 150 bncum of gas will be delivered over the contract period. No decision has yet been made as to which fields will source the gas.

The contract will expand Norway's annual gas sales by about 10 percent. Norwegian gas sellers were already committed to delivering some 62 bncum of gas per year from 2000, a figure which will now rise to 68 bncum per year.

The gas will be piped through the Zeepipe and NorFra trunklines from the Norwegian North Sea to Zeebrugge in Belgium and Dunkirk in northeast France, respectively. NorFra is due to come on-line in 1998.

Chevron sells 10 percent interest in Tengiz joint venture

Chevron has reached an agreement in principle to sell 10 percent of its 50 percent interest in the Tengizchevroil joint venture in Kazakhstan to Lukoil. At the conclusion of the sale, Chevron will retain a 45 percent share compared with its previous 50 percent ownership. Financial terms of the deal have not been disclosed.

'Lukoil will bring real benefits to the Tengiz joint venture... by contributing Russian expertise and experience', says Dick Matzke, President, Chevron Overseas Petroleum Inc.

The Tengiz field is estimated to hold proven reserves of more than 6 billion barrels of oil. While production has increased significantly in the past year, currently standing at some 160,000 barrels per day (b/d), the field has the potential to reach a peak production of 700,000 b/d.

The recent signing of the Caspian Pipeline Consortium (CPC) restructuring agreement (see *Petroleum Review*, January 1997) has helped put the Tengiz development on a faster track, says Mr Matzke.

Chevron and Lukoil are the largest oil company shareholders in CPC, holding 15 percent and 12.5 percent respectively.

The consortium will ultimately increase oil exports from the Russian Black Sea coast by some 1.5 million b/d.

Newsdesk

New Chinese aviation fuel and aircraft refuelling joint venture

Fortune Oil plc has entered into a contract to establish a joint venture with the China Aviation Oil Supply Corporation (CAOSC) and Vitol Holding of the Netherlands to provide aviation fuel and aircraft refuelling services in central and southern China.

Operating under the name South China Bluesky Aviation Oil Company Limited, the joint venture will initially serve up to 16 airports in the region, including Guangzhou, the second largest airport in the country. The agreement covers supply, storage and marketing of aviation fuels for a 25-year period. It also includes the marketing of lubricants and other related products to the airline companies.

Both Fortune Oil and Vitol will hold 24.5 percent stakes in the new operation, CAOSC holding the remaining 51 percent interest. According to the Fortune Oil Chief Executive Barry Cheung this is the first time that China has allowed foreign participation in its aviation fuel supply industry on a regional scale.

The company expects 'significant returns' from the project. Indeed, China has already announced plans to expand existing airports, build new ones, develop auxiliary facilities and acquire more aircraft.

In 1995 alone, approximately 538,000 tonnes of jet fuel were sold at the 16 airports in the region, generating an unaudited sales revenue of £97 million.

Staffa pipe disposal

The UK government has approved plans for the decommissioning and disposal onshore of the Staffa pipeline system in the northern North Sea.

The system – comprising a 9.5-km oil production pipeline, a 10-km control umbilical and a 2-km redundant pipeline – runs in a trench from the former Staffa wellheads in block 3/8b to the Ninian Southern platform.

New marine/petroleum technology centre

The Centre for Marine and Petroleum Technology (CMPT) brings together the Petroleum Science and Technology Institute (PSTI) and Marine Technology Directorate (MTD) as a single, new entity to channel new technologies into enhancing oil and gas discovery and production and the marine sector.

Mr Charles Henderson, interim Chief Executive, CMPT, said: 'The centre will build on the excellent achievements of both MTD and PSTI, who have provided a major part of the required solution.

'With CMPT, there is now a single, clear focus on the whole technology challenge facing the industry.'

The new organisation will be based in Aberdeen and London, with additional offices in Edinburgh.

Norwegian floating gas production first for Kvaerner

Kvaerner has secured the turnkey contract for Åsgard B, the first floating gas production platform off Norway and the largest unit of its kind built to date. Awarded by field operator Statoil, the $1 billion contract ranks as the biggest offshore development assignment ever placed in Norway.

The floater is due to be installed on the Halten Bank, offshore Norway, on 16 August 2000. Production is scheduled to begin in October of the same year.

The unit will be about twice the size of the Njord and Visund oil platforms offshore Norway. Its platform topsides will weigh in at 28,000 tonnes, with living quarters and processing facilities, and will carry operative deck loads of 15,000 tonnes.

According to Kvaerner, the 17,000-tonne hull comprises a ring pontoon with six columns to support the topsides. It will be held in position in some 300 metres water depth by 16 mooring lines and anchors.

Åsgard B floating gas production platform

Construction of the topside facilities and hook-up will be undertaken by the Kvaerner Rosenberg yard in Stavanger.

Åsgard will have a daily export capacity of 38 million cubic metres (mncum) of rich gas and 94,000 barrels of condensate. A further 41,000 barrels of partially stabilised crude oil will also be produced daily, which will be transferred to the Åsgard A production ship, and 11 mncum/d of gas will be reinjected in the reservoir.

Statoil moves into the new millennium

Statoil (UK) Ltd moved all of its UK operations, including exploration and production, crude oil marketing services, and its gas division (part of which is now the wholly owned subsidiary Alliance Gas Ltd) to new headquarters in Regent Street, London on 30 January.

According to Harald Norvik, Statoil Group President, the move marks a major step towards consolidating the company's businesses in the United Kingdom.

Mr Norvik also took the opportunity to outline Statoil's 'Strategy for a New Era' when he spoke at the first 1997 gathering of the reactivated Norwegian British Chamber of Commerce on the same day. Plans include:

- **A doubling of operating results by the year 2000 by improving ongoing business performance to increase the return on capital already employed, and accessing new acreage and new opportunities both upstream and downstream;**
- **An accelerated development of core areas internationally – including Azerbaijan, Kazakhstan, Nigeria, Angola, Vietnam, Venezuela and the Gulf of Mexico – in a bid to produce some 100,000 barrels of oil equivalent per day (boe/d) by the year 2000, rising to 300,000 boe/d by 2005. The company produced 30,000 boe/d internationally in 1996. New alliances with new companies in other areas are expected to contribute to meeting these targets;**
- **A considerably increased level of activity in the gas market, as well as in electricity generation. The company will also be involved in building Norway's first two gas fuelled power plants.**

Newsdesk

Esso Norge submits Jotun plans

Esso Norge, operator of the Jotun oilfield, has submitted a Plan for Development and Operation (PDO) to the Norwegian Ministry of Petroleum and Energy.

It is proposed to develop the discovery utilising a wellhead platform and a floating production, storage and offloading vessel. Total development is expected to cost in the region of NOK5,900 million (at 1996 prices).

Located in Norwegian North Sea blocks 25/8 and 25/7, some 165 km west of Haugesund on the west coast of Norway, the field has estimated recoverable reserves of 190 million barrels.

Start-up is planned for 1999. Production is expected to plateau at approximately 80,000 barrels per day.

Third state oil company for China

A third state oil company – the China National Star Petroleum Corporation (CNSPC) – has been established in China in a bid to 'commercialise' the activities of the oil bureaux and research institutes under the Ministry of Geology and Resources, according to the *Financial Times*.

CNSPC will develop both onshore and offshore oil and gas resources, initially in the East and South China Seas, in southwest Sichuan province and to the far-west in the Tarim Basin. The new company will thus compete directly with both the other state-owned companies, China National Offshore Oil Corporation and China National Petroleum Corporation, which focus on the offshore and onshore sectors respectively.

CNSPC is also reported to be looking to foster relationships with foreign oil companies and is thought to be planning to develop activities in the downstream sector in the future.

Bitech set to develop Russian prospects

Canadian company Bitech Petroleum operates in the Komi Republic of the former Soviet Union. It is in the special position of holding a controlling 95 percent stake in Russian joint stock company Bitech-Silur which holds licences in six oilfields in the Timan-Pechora Basin. Total recoverable reserves are estimated to be in the region of 158 million barrels.

The company reports that it plans to develop both the South Kyrtayel and Lekker fields this year. The two fields have combined recoverable reserves of 39 million barrels.

South Kyrtayel is already producing 1,400 barrels of oil per day (b/d), a figure scheduled to rise to 3,000 b/d in early 1997. Four horizontal wells, the first of which is to be spudded this month, will boost production to around 11,000 b/d by 1998.

BP plans power plant developments

British Petroleum has applied for government approval for the construction of a new 1,100MW combined cycle gas-fired power station at its Port Talbot petrochemicals plant in South Wales.

While the company will provide the land for the new facility, it has no plans to finance the plant's construction or act as operator and is currently looking for 'interested parties'.

The company has similar plans for a 1,100MW power station at its Saltend petrochemicals complex near Hull. However, in this case, BP has a 'higher level of involvement' in that it will also supply the gas to be burned in the facility. While this remains a possibility at the Port Talbot plant, no decision has been made as yet.

New gas plant for New Zealand

The Waihapa oil and gas production facility near Stamford, central Taranaki in New Zealand's North Island has been upgraded to accommodate production from the Tariki and Ahuroa gas fields. Located some 20 km north of Waihapa, the fields have combined reserves of some 95 billion cubic feet (bncuft).

The plant is designed to process up to 34 mncuft of gas per day, extracting 1,600 barrels of condensate and 70 tonnes of liquefied petroleum gas per day prior to sale.

The facility will allow up to 20,000 tonnes of LPG to be extracted from the fields annually. Some 2,600 barrels of condensate and oil will be transported daily to the Omata tank farm for shipment to the Marsden Point refinery as well as refineries overseas.

Europe's first gas futures contract

The first day of trading in Europe's first natural gas futures contract on 31 January proved 'promising', according to the International Petroleum Exchange (IPE). A total of 465 lots were sold, equivalent to some 14 million therms (20 percent of daily natural gas production) with an underlying value of some £2 million.

The IPE market is traded as a monthly contract based on daily deliveries of natural gas at the national balancing point, the notional location within the UK national transmission system at which TransCo carries out daily balancing of supply and demand and which has recently emerged as the focus for short-term trading within the UK natural gas market.

Key features of the new contract include:

- **A standard mechanism for delivering gas within the TransCo transmission system;**
- **No barriers to entry – a hedging and trading tool for all market participants;**
- **Removal of counterparty risk – centrally cleared and margined contracts;**
- **Trader anonymity;**
- **Speedy market access;**
- **Transparent price generation.**

IPE hopes that the new gas contract, which is traded up to 12 months forward, will evolve into a European price benchmark in the same way that the Brent oil futures contract acts as a price marker for the international crude oil market.

Sustainable development

Advice to the UK government on key issues for sustainable development was published in the British Government Panel on Sustainable Development's third report on the debate.

The report identifies four main issues which the panel considers require higher priority and leadership – official procurement policy, subsidies, climate change and long-term energy supplies and the impact of agriculture on biodiversity.

A number of recommendations addressing these issues are also outlined, including a call on the government to:

- Draw up new aims and principles for the use ofsubsidies such as tax exemptions and capital grants;
- Develop a strategic energy policy which promotes energy efficiency and conservation in all sectors of society and to seek agreement with other countries on exacting new world targets beyond 2000;
- Develop a fresh initiative to reform the Common Agricultural Policy, including the redirection of funds from agricultural commodity support to direct environmental payments and making sustainable farming a central objective.

Diary Dates

Exploration and Production Discussion Group

'Brent improvement drive'

Thursday 20 March at 17.00 for 17.30 until 19.00

By Tony Brown, Engineering Manager, Brent Business Unit, Shell Expro

IP contact: Jenny Sandrock

Energy Economics Group

'Taking forward the opportunities of energy liberalisation in the United Kingdom and beyond'

CANCELLED

Tuesday [illegible] March

By The Rt Hon the Lord Fraser of Carmyllie QC, UK Minister for Energy

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Exploration and Production Discussion Group

'Oil Exploration and Production – is purity best for shareholders?'

Tuesday 15 April, 17.00 for 17.30 until 19.00

By Dr Pierre Jungels, Chief Executive, Enterprise Oil plc

IP contact: Jenny Sandrock

Energy Economics Group

'Upbeat on the downstream'

Tuesday 25 March at 12.00 for 12.30 followed by a buffet lunch from 13.30 to 14.15

By Dr Rolf Stomberg, Managing Director, British Petroleum

Prior registration is required

IP contact: Jenny Sandrock

London Branch

'Back to Basics — Bitumen'

Tuesday 25 March, at 17.15 for 18.00

By Mr Martin Heslop, Acland Investments, and **Mr Paul Morgan,** Shell Bitumen

Bitumen has quietly been undergoing major changes in the last decade. Blending polymers and additives into the bitumen gives a range of 'designer' bitumens with enhanced performance to match each application. With the transition in specifications from recipe to end performance, manufacturers and contractors are forming closer links with binder suppliers in order to control consistency and to understand those properties which influence performance. Paul Morgan will explain the manufacturing processes and industrial applications, while Martin Heslop will describe road applications with this transition in mind.
Light refreshments kindly sponsored by Shell UK Ltd, will be available afterwards.

Contact: Mrs E Walker, Tel: 01926 404768

**All meetings are held at the Institute of Petroleum unless otherwise stated.
Please tell the IP contact if you plan to attend any of these free meetings
Tel: 0171 467 7100 Fax: 0171 255 1472**

Newsdesk

What is it?

'Oil storage installation'
(*Financial Times*)
'Oil storage platform'
(*Financial Times*)
'Oil storage platform'
(*The Daily Telegraph*)
'Oil storage buoy'
(*The Times*)
'Oil platform'
(*The Times*)
'Oil platform'
(*The Independent*)
'Oil storage/tanker loading facility'
(*Press and Journal*)
'Loading buoy'
(*Lloyd's List*)
'Oil storage platform'
(*Lloyd's List*)
'Oil storage platform'
(*The Guardian*)
'Oil platform'
(*New Scientist*)

According to Shell Expro, who stress the point on every possible occasion, Brent Spar is an 'oil storage and loading buoy'.

Fast-track licence

The first oil and gas licence under the recently introduced 'fast-track' UK oil and gas licensing procedures has been awarded to a consortium led by Amoco, with co-applicants British Gas and Amerada Hess.

The award is for block 49/30c in the southern North Sea. The consortium plans to directionally drill a well on the new prospect, which has provisionally been named Browne, within the next 12 months.

Fast fuel card

Kuwait Petroleum (Q8) and Budgens have joined forces to test a new fuel payment system.

Customers at the new Q8 automat site in the car park of the Budgens supermarket in Mountsorrel, Leicestershire, can use a 'Fast Fuel' card to purchase fuel when paying for groceries at the checkout. The card can then be inserted into a petrol pump, enabling the customer to fill up and drive off without having to visit another till.

The petrol pumps at the site also accept most bank cards and fuel cards in addition to the new Q8 Fast Fuel card.

Amoco and Shell unveil Marlin project development plans

Amoco and Shell Deepwater Development Inc have outlined plans to develop the Marlin deepwater oil and natural gas discovery on Viosca Knoll block 915 in the Gulf of Mexico.

The $500 million project will utilise a tension leg platform, construction of which is due to begin this year. The hull will be fabricated by Belleli in Taranto, Italy, and towed to Corpus Christi where the topsides will be built by Aker Gulf Marine.

Due onstream in mid-1999, Marlin is expected to produce some 250 million cubic feet of gas and 40,000 barrels of oil per day. Amoco holds a 75 percent working interest in the field, Shell owning the remaining 25 percent.

Two new pipeline systems will transport production to onshore markets. The Main Pass Oil Gathering System, an Amoco-operated system installed last year, will transport oil into the Empire, Louisiana market, while natural gas will flow through the Destin pipeline, a recently announced joint venture comprising Amoco, Shell and Sonat. The Destin pipeline will come ashore at Pascagoula, Mississippi, where an Amoco/Shell gas processing facility is to be built. The pipeline will extend northwards to interconnect with five interstate pipelines in Mississippi.

'The Marlin project, together with the two recently announced pipeline projects and the additional long-term commitment to two deepwater drilling vessels under construction, demonstrates Amoco's commitment to developing the eastern Gulf of Mexico's deepwater assets,' commented Jerry Wenzel, Amoco Deepwater Manager in New Orleans.

Gulf of Mexico first for British-Borneo

British-Borneo Petroleum has announced that it is to proceed with the $210 million development of the Morpeth field and its associated infrastructure in the Gulf of Mexico.

Morpeth will be the first field to be developed using a SeaStar mini tension leg platform to be supplied by British-Borneo's alliance partner, the Atlantia Corporation of Houston, Texas.

Probable reserves are estimated at 77 million barrels of oil equivalent. The field is due onstream in summer 1998 at an average annual plateau production rate of 35,000 barrels of oil and 35 million cubic feet of gas per day.

Once processed on the SeaStar platform, oil and gas will be transported to the Grand Isle 115 hub platform located near the shelf edge some 19 miles away. The pipeline system has been designed to handle throughput volumes of twice the Morpeth production rates. Oil will then be exported via the main Amberjack pipeline system to the Clovelly onshore terminal in Louisiana, while gas will be carried by the Discovery pipeline system.

Upturn in Australian oil and gas activity

Increased optimism on prospectivity, particularly offshore northwest Australia, together with more buoyant oil prices, a number of recent exploration successes and the continued development of existing projects, are expected to underpin a significant upturn in Australian petroleum exploration and development expenditure in 1997, according to a recent forecast by the Australian Petroleum Production and Exploration Association (APPEA).

Indeed, APPEA reports that such expenditure may reach $2.7 billion this year, a level not seen since the early 1990s.

Some A$589-841 million is expected to be invested in offshore exploration activity in 1997, including the drilling of some 57-76 wildcat wells and 8-20 appraisal wells offshore, while onshore exploration expenditure is forecast around A$170 to A$196 million, including costs for drilling some 77 to 92 onshore wildcat wells and 17 to 30 appraisal wells.

Investment in development activity is expected to be somewhat higher – A$1,325-1,421 million offshore and A$237 to A$250 million onshore. Some 86 to 91 development wells are to be drilled offshore in 1997 and 41 to 77 development wells onshore.

UK gas choice

Half a million domestic gas customers in Dorset and Avon can now choose an alternative gas supplier to British Gas following the start of phase two of the opening of the UK domestic gas supply market to competition on 10 Feburary. Some 14 companies, including British Gas, are selling their services in the region.

A further one million customers in Kent and Sussex will have a choice of gas supplier from 7 March.

Granada sale

Granada has sold its 21-strong network of Welcome Break motorway service stations, acquired with the purchase of Forte plc last year, to Bahrain-based investment group Investcorp for £476 million. The sites had to be sold by 25 April in accordance with an undertaking made with the Office of Fair Trading at the time of the acquisition.

Total supply deal

Total Oil Great Britain Ltd has signed a supply agreement with 'Kitchens of Burnley', the largest dealer-owned service station in the north of England. The site is to be re-branded accordingly.

The agreement also extends to the Kitchens of Burnley Renault main dealership where Total's lubricants will now be used for all service and repair work.

The Bank Governor's Wednesday meeting with the IP

IP Week this year comprised three conferences, a memorable luncheon meeting and the traditional Annual Dinner. These were events organised by the Institute of Petroleum but there were many others arranged by companies and organisations to coincide with the presence in London of many senior executives from around the world. Midweek some 1,500 people congregated at the IP Annual Dinner, held once again at Grosvenor House.

IP President David Setchell, Managing Director, Gulf Oil, hosted the occasion, sitting at the centre of the top table, flanked by the two after-dinner speakers, Eddie George, Governor of the Bank of England, and David Jewell, lately Master of Haileybury and Imperial Service College and Chairman of the Headmasters' Conference.

Mr George proposed a toast to the Institute of Petroleum, focusing his remarks on some aspects of the broader economic environment in which the oil industry operates and, in particular, on the prospects for greater stability.

Mr Setchell replied to the Governor's toast, saying, 'We in the oil industry are well aware of the determination that our guest of honour has shown in curbing inflation and in achieving a stable and, above all, sustainable rate of eco-

nomic growth. We share his objectives, knowing that we benefit from their successful attainment and we greatly admire the success he has achieved.' He went on to describe how the Institute was proposing to reinforce the standards of knowledge and professional skills of its members by becoming a 'learning' society. He also thanked the IP staff and volunteers sincerely for all their work during the past year.

Mr Jewell, abandoning the formal style of a headmaster, entertained the gathering with wit and humour, while he replied on behalf of the guests.

Mr Eddie George said:

It is a great pleasure to be here with the assembled might of the world's petroleum industry and to occupy this platform in such refined company, if that is the appropriate vocabulary for the occasion.

But I confess to you I do find it awesome. I've been admiring your vital statistics and I discover that, between you, you produce something like 70 million barrels of oil a day. And I discover that, as an industry you work without a break – 7 days a week 52 weeks in the year – just like central bankers. So on an annual basis you roll out the barrel something like 25 billion times. It is awesome.

And those are just the volume figures. It is when you convert them to values that you start talking seriously large numbers. At $20.50 a barrel – the Brent price at 7 minutes past 3 last Saturday afternoon – the annual value of world oil output works out at something like $500 billion.

But to put it into perspective, $500 billion is more than the annual gross domestic product of any country in the world outside of the G7. On that basis, I think that you might just find that you are entitled to a permanent seat on the UN Security Council!

But size isn't everything. I could not help noticing that as an industry you have been in relative decline. Over the past decade the volume of world oil output grew by around 1.5 percent a year compared with real GDP growth for the world as a whole of around 3 percent. You will know why that is. It is not because you are running out of oil – well not yet anyway: proven reserves are substantially higher than they were 10 years ago. But at least output has not fluctuated all that much from year to year.

The real uncertainty for your business must be to do with its volatility in value terms. Over the past 10 years the spot oil price has varied between a low of around $12 to a high of over $36 a barrel. And it has been even more erratic in terms of other national currencies, with fluctuations in the $ price compounded by even greater average volatility in foreign exchange markets.

Broader economic environment

Now there is nothing much that I can tell you about the oil-specific aspects of all this. So I will focus my remarks on some aspects of the broader economic environment in which you have to operate, and in particular on the prospects for greater stability.

Let me give you the good news first, and that has to do with today's approach to macro-economic policy. Macro-economic policy operates directly on the demand side of the economy.

What tended to happen in the past – not just in this country – was that demand was managed with too much emphasis on the short-term and insufficient attention to the supply-side capacity to meet that demand. The perception was that you could increase output and employment simply by stimulating demand, through lower interest rates or higher government borrowing. And so, of course, you could until

Mr E George, Governor of the Bank of England

emerging imbalances – notably accelerating inflation – obliged you to put on the brakes. You will all be familiar with the exaggerated cycles that resulted from such attempts to work the short-term trade-off between growth and stability. And, as business people, you will know just how damaging that volatility was to your own long-term planning and therefore to the long-term performance of the economy.

Now we have all learned from that experience. Today's orthodoxy – in countries all around the world and across a large part of the political spectrum within countries – is that there is no trade-off between growth and stability, except in the short term. There is much greater recognition that demand management alone cannot determine the sustainable rate of growth of the economy, or the achievable level of employment. They depend much more fundamentally on its structural, supply-side, characteristics. More attention is therefore paid to keeping demand in line with capacity, and there is more emphasis on the medium and long term.

Price stability

The consensus view now is that monetary policy should be directed specifically at achieving, and maintaining, price stability. This is not just some doctrinaire end in itself. Inflation is a symptom of imbalance between demand and supply in the economy. What we are in effect seeking to do is to *anticipate* the emergence of that imbalance and head it off before it becomes entrenched. If we can succeed in that, then interest rate movements will need to be less dramatic and the economy will be able to grow at a steadier and more sustainable and predictable rate. That, in turn, will encourage longer-term economic decision-making and investment, which will help to improve the underlying supply-side performance.

Similarly the consensus view now requires overall fiscal policy to be directed to keeping government borrowing at levels that can be sustained in the medium and long term, without either forcing up interest rates or implying the prospective need for rising tax rates – which could otherwise damage the development of private sector economic activity.

Now I do not pretend that this change of macro-economic policy emphasis means that economic volatility is about to become a thing of the past. It would be nice to think that but in our real world we have to expect that there will continue to be ups and downs. We cannot assume that the business cycle has been abolished; cyclical positions will continue to differ from one country to another – requiring different monetary policy responses and resulting in different fiscal outcomes; there will continue to be unforeseen shocks; and there will, sadly, continue to be policy failures where things do not turn out as you expect however good your intentions. But today's policy emphasis ought at least to mean that we are less likely than in the past to aggravate disturbances, and, if only to that extent, it should mean *less* volatility of both output and prices.

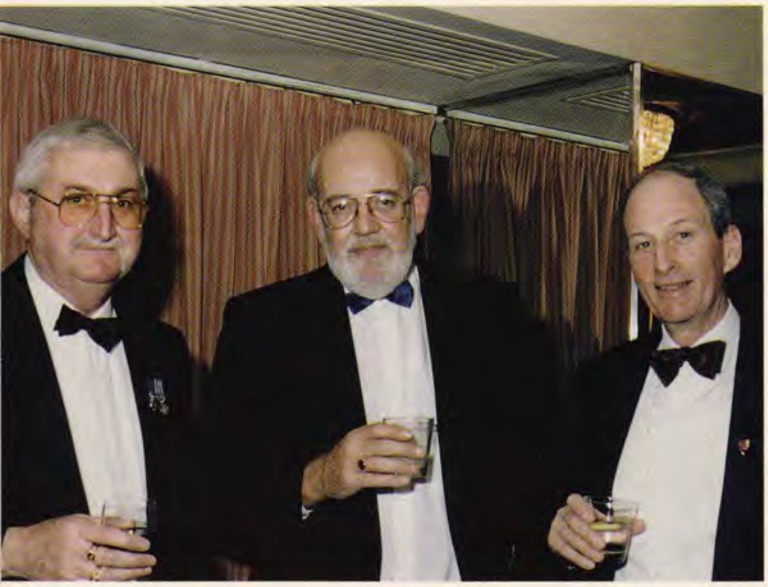
That must be good news for global business, including the oil business.

Lower inflation

In one respect we have already made considerable progress. Inflation in many countries – including most of the industrial world – is now lower than it has been for a generation. And even in the case of some developing countries and some of the countries in transition, where inflation had risen to alarming rates, it has more recently fallen back dramatically. Lower inflation has brought lower and more stable interest rates. And output in the world as a whole has picked up to around 3.5 to 4 percent a year.

Dr P Jungels CBE, Chief Executive, Enterprise Oil plc and IP Past President, and Mr DR Varney, Executive Director, BG plc and IP Immediate Past President

(Left to right) Mr E George, Governor, Bank of England, Mr D Setchell, IP President and Managing Director, Gulf Oil, Mr D Jewell and Mr I Ward, IP Director General



But there are some conflicting tides swirling about beneath this apparently calm surface. Some of the transition economies have seen a brutal contraction of output which is only now beginning to stabilise. And there have been sizeable fluctuations in the growth rates of some of the emerging countries, which represent an increasing share of your global market. Growth in Asia is easing back to a more sustainable pace, while Latin America continues to recover from its setback of two years ago.

Among the industrial countries, too, the picture is somewhat variable. Low inflation in the United States and in this country has been accompanied by sustained growth and falling unemployment – just as the textbook says. Unemployment – on a standard International Labour Organisation basis – is down to around 5.5 percent in the United States and 7.5 percent in the United Kingdom. And growth with reasonably low inflation looks set to continue. Elsewhere, in Japan and continental Europe, activity has been disappointingly weak. In Europe in particular unemployment has risen to frightening levels, ranging from 9.25 percent in Germany to over 12 percent in France and Italy and over 20 percent in Spain. Unemployment is – as I have said on many occasions – much the most urgent issue confronting Europe. And while activity on the Continent and in Japan is now forecast to pick up, the risks to the forecasts in some cases may be on the downside.

It is possible to argue that activity and employment on the Continent are being held back in the short term by the rigorous efforts that those countries are required by the Maastricht timetable to cut back their public sector borrowing – even at a time of weak economic activity.

Structural questions

But Maastricht certainly cannot explain the upward drift of unemployment on the Continent stretching back over the past 10-15 years. The typical explanation one hears for that – from many commentators within the countries themselves – is structural weakness on the supply-side of the economy. The suspects most frequently identified include rigidities in the labour market often associated with government regulation and penal additions to direct labour costs that are needed to fund generous social provision – a burden that looks set to increase for demographic reasons. More generally, it is suggested that the problems reflect a lack of flexibility and adaptability in a changing global environment.

Structural questions of this sort – involving as they often do judgments about the appropriate balance between economic efficiency and social justice – are intensely difficult to resolve and they cannot be resolved quickly. They are, quite rightly, matters for elected national politicians.

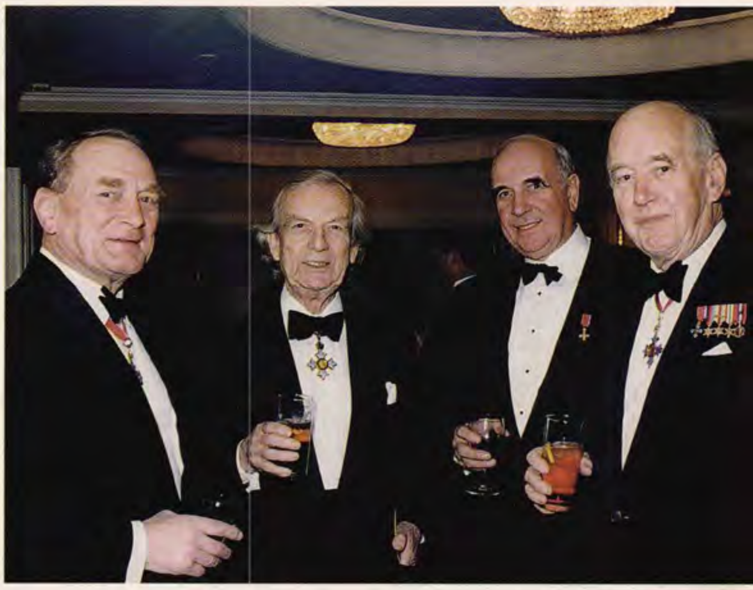
My point is this. It will not necessarily help things in the short run to superimpose fiscal tightening on a situation of cyclical weakness. But nor will it help things in the longer run to relax macroeconomic discipline on the demand side of the economy if the real problem is indeed structural weaknesses affecting the supply side.

The unemployed of course are unlikely to care very much whether their condition is the result of inadequate macroeconomic policies or structural, supply-side, weakness. They simply want a job. My worry is that if low inflation becomes associated with stagnation rather than with steady and sustained expansion, pressure will develop to revert to short-term demand management, even though we know from the past that this would be likely simply to re-introduce macroeconomic uncertainty and ultimately make matters worse. In that context it is enormously important to all of us that activity in continental Europe, and in Japan, does now pick up as expected.

(Left to right) Mr D Garwood, IP Essex Branch, Mr BA Sheehan, IP Irish Branch and Mr PM Johnson, Chairman, IP Branches Committee

Mr T Eggar MP, Chairman, MW Kellogg Group Ltd and Agip UK Ltd, is seated with Mr SG Suellentrop, Managing Director, Arco British Ltd (left)

IP Dinner



These various considerations help to explain the recent gyrations in foreign exchange markets. As you will know only too well the dollar price of oil rose by about 33 percent in 1996. In sterling it rose by rather less, by about 24 percent. While in Deutsche Mark, French francs and Yen it rose by 40 percent or more. These differences, of course, reflect the strengthening of the dollar, and sterling, against the other major currencies. That strengthening can, in part, be explained by our relative cyclical positions – and by the interest rate differences associated with those cyclical divergencies. Forward exchange rates imply that part of last year's strengthening of the dollar and sterling will be reversed. But in addition the continental European currencies may have been affected by market uncertainty about the prospective strength of the Euro, and pressures within the Japanese financial system may have affected the Yen. It was against this background that G7 Finance Ministers and Central Bank Governors concluded, at their meeting in Berlin, 10 days ago, that the major currency misalignments they had identified in 1995 have now been corrected. The hope therefore is that relative currency movements will now moderate; and that prospect is strengthened to the extent that all the G7 countries remain firmly committed to maintaining macro-economic stability into the medium and longer term.

While you in the industry have been rolling out another 820,000 barrels, I hope that I have given you some comfort that the economic environment that you face may indeed be somewhat more stable into the future. But I recognise that it is very limited comfort. I think that you would not have believed me if I'd promised you anything more.

Mr Setchell said:

May I begin by welcoming you all most warmly to this, our 83rd IP Dinner. Many of you have joined in this week's conferences, seminars and other social events which bring so many of the key players in the world oil industry to London. The week's activities provide a forum for an exchange of views and a platform for meeting with old friends and making new ones.

Tradition at these dinners requires that the guest of honour speaks first so it is somewhat late but no less warmly that I welcome our guest of honour, Mr Eddie George, the Governor of the Bank of England. We are greatly indebted to him for being with us and I should like to thank him for sharing his thoughts on the macro-economic climate and how we go about our business.

I am told by friends in the Bank that the Governor's obsessions are in fact price stability, rugby, sailing and price stability – in that order. The nation shares a similar interest holding its collective breath every month awaiting any hint of a change in interest rates following the regular meetings between Canny Ken and Steady Eddie. The results of these meetings are revealed six weeks later which has more value than having to wait 30 years as was the case previously. Very recently we learned of the bitter wrangle in 1966 between Lord Cromer, the then Governor, and Harold Wilson, Prime Minister, oddly enough in a pre-election run-up.

We in the oil industry are well aware of the determination that our guest of honour has shown in curbing inflation and in achieving a stable and, above all, sustainable rate of economic growth. We share his objectives, knowing that we benefit from their successful attainment and we greatly admire the success he has achieved.

This is not to say the oil industry could not benefit from and welcome higher prices, particularly in the beleaguered downstream business where

Mr Setchell

Four IP Past Presidents (left to right) – Mr AT Gregory CBE, Dr J Birks CBE, Mr B Butler OBE and Sir Nevil Macready Bt, CBE

single digit returns have become the unacceptable norm, although you can be certain that the first sign of recovery will renew the clamour for a price inquiry and a referral to the Monopolies & Mergers Commission.

In real terms, before adding duty and VAT, today's price of a litre of four-star petrol is 14 pence compared with 33 pence in 1980 and 58 pence in 1960. That such a progression has been possible depends to a large extent on a major deployment of creative technology and management throughout the production, conversion and supply chain. These achievements have been hard won and nowhere more dramatically than in the upstream business. Indeed, but for the massive cost cutting encapsulated in the name of CRINE, new methods of working, new management styles and co-operation from government in reducing bureaucracy, the UK sector of the North Sea could be in decline. Now, the prospects are that output this year will reach a new record and that production will remain significant for many more years.

There are other ways in which the oil industry contributes to the UK economy. In 1996 we collected £20 billion from duty and VAT on gasoline and diesel fuel for the Chancellor of the Exchequer and charged him precisely nothing for our efforts. Perhaps our guest of honour could remind any Chancellor he meets in the near future of what we collect and organise a modest fee for us for services rendered? Ten percent would be appreciated and that seems a reasonable rate on government windfall income.

The oil industry is still a major employer in the United Kingdom. In total 430,000 jobs are directly or indirectly supported by it. Offshore oil and gas accounts for 20 percent of total annual investment by UK productive industry and has to date invested £150 billion in 1996 money, the equivalent of 14 Channel Tunnels.

No-one challenges the importance of the industry and the enormous benefit that the UK economy derives from the oil sector. But big, strong and powerful as we are we are vulnerable to dramatic changes in legislation which can disable future endeavours and diminish contributions.

I will give two examples where we look to the government to hold firm and resist the worst excesses of regulatory zeal which can from time to time come out of Brussels.

In the upstream sector we must resist the working-time directive. It has been claimed that if implemented it would generate up to 6,000 new jobs but this is quite unrealistic. What is more likely is a significant decline in activity with the loss of jobs both offshore and onshore. In fact, the Coshape Report, initiated by the European Commission itself, found very few points to criticise in relation to offshore employment practices.

Overall, we must convince government and the European Union that there should be *fewer* new regulations but those that are introduced, especially on environmental matters, should be based on sound science and rigorously derived cost-benefit parameters.

In fact this is precisely what happened when the oil industry, the auto industry and the European Union collaborated in a sound scientific analysis of the options required to meet air quality needs at the lowest cost and with optimum benefit to society. The oil industry committed itself to the process and is equally committed to the proposals identified by the European Commission for implementation in the year 2000. Now as the legislation is being formulated, it is essential that the our government stands its ground in subscribing to the outcome of the Auto-oil programme and that it resists pressure from other member states which seem willing to deviate from principles already agreed upon.

IP activities

Last year was again very busy and successful despite a high level of staff changes. Most sadly of all, Caroline Little, known to so many of you for her consistently efficient and cheerful organisation of this dinner and many conferences over a period of 14 years, died last summer. We all miss her enormously.

The expansion of knowledge about the oil industry continues to be one of the IP's priorities aimed at a wide range of publics. The process starts with young people and the IP will continue to develop students' understanding of the oil industry and promote career interest, drawing on its independence, its technical reputation and its ability to offer a pan-industry perspective.

In a fast-changing environment, where downmanning is commonplace, where employability transcends employment and where skills need to be transferable, there is a unique opportunity for the Institute to enhance its educational role by establishing a more structured personal development programme building on the conferences, workshops and seminars already on offer. For 80 years we have been a *learned* society. Now we aim to become a *learning* society as well. I see this as a way in which the Institute can enhance the reputation of its members, their companies and the industry as a whole by establishing and maintaining high standards of knowledge and professional skills. However, Continuous Personal Development will not, at least in the short term, involve any accreditation or examinations.

The IP standards, codes of safe operating practice and guidelines – carefully, scientifically and objectively arrived at – have helped to create a remarkable safety record and to build trust and reliance on the industry's ability to regulate itself in an increasingly regulated environment. Research carried out by the Institute or commissioned by it has contributed most valuably to the industry's cause. Last year we published 16 guidelines and codes of safe operating practice, two papers in international journals and three research reports. Apart from its codes, the IP produces a wide variety of publications including our magazine, *Petroleum Review*, which is widely respected and through its worldwide readership carries our news, developments and standards to an extended audience.

The growth in the number of technical workshops is enhancing the Institute's reputation and is enabling us to identify new areas of work where we can play our part. We increased our involvement with government agencies

and regulators and data submitted by the IP was a major component in the European Benzene Risk Assessment study.

Corporate membership of the Institute has declined slightly in recent years and I hope more companies in oil industry supply and support roles will see the benefit of membership in the near future. A new brochure aimed both at companies and individuals seeks to dispel the myth of the IP as *dinosaurus rex*. The IP has to be dynamic and exciting, otherwise its recent success in attracting record numbers of individual members will not continue.

We now have 8,140 individual and over 350 corporate members from whom 1,200 volunteers work on committees and working groups. This represents a colossal investment in time and a major contribution from the employing companies when they have fewer and fewer people to offer. The work that is undertaken is essential and it is done for the entire industry which would otherwise have to find alternative and more expensive ways of achieving the same objectives. We are greatly indebted to member companies which encourage their employees to engage in IP work and I hope you will feel it is beneficial to continue. Similarly, I wish to reassure the volunteers that their work is greatly appreciated and valued and to thank them for their considerable contribution.

The IP Council is also comprised of volunteers and I am grateful for their efforts on behalf of the IP.

Last year was a particularly difficult year for the IP permanent staff. Additional pressure grew from a high turnover rate in a team which numbers only 36. Their achievements were all the more appreciated and our thanks go out to all members of staff who are led so ably by the Director General, Ian Ward. I would also like to thank Pauline Ashby who is responsible for organising this dinner in the tradition of IP excellence.

I would now like to introduce David Jewell, our guest speaker. He is a lifelong educator and was most notably for 10 years The Master of Haileybury and the Imperial Service College and in 1990 Chairman of the Headmasters' Conference.

Petroleum issues for the new millennium

By Mr Lucio A Noto,
Chairman and CEO,
Mobil Corp

Addressing a crowded gathering at the IP Luncheon held at the Dorchester Hotel during IP Week, Lucio Noto reviewed Mobil's joint venture with BP in Europe before elaborating on the three main problems facing the worldwide industry, as he saw it. He gave frank and forthright views on sanctions, in particular US sanctions, on operating in countries such as Nigeria and on climate change.

Mr Noto makes his address

He said in part:

The North Sea has been a great place to do business for many of us; it is a very special place for Mobil. We have over 2,000 people here, we have about $4 billion in assets and, luckily, we take home something like a quarter of a billion dollars in profits. We were one of the earliest players in the North Sea and one of the first to get into independent gas marketing.

We are generally a big player in gasoline and lubes throughout the European sector. BP and Mobil are combining our businesses, with revenues of roughly $20 billion, with assets of around $5 billion, and about 9,000 service stations in place. It is not an easy process but I am proud of the way the two organisations are trying to put this new venture together. The service stations are going to carry the BP brand and will be managed by BP. In fact, BP has the majority share and will manage the whole fuels business. Mobil will have a majority share on the lube side and will manage the lube business. We will sell both Mobil and BP brands, and here in the United Kingdom also the Duckhams brand. When we first announced the deal last year, a BBC reporter said to me, 'This must be a pretty sad day for you, watching those Mobil signs come off 3,000 stations.' I told him honestly, 'No, it wasn't, it was a happy day, because very frankly I'd rather be a minority partner in a fuels business that can make money and grow rather than be the majority owner of a business that can't.'

We all know that Europe is one of the most competitive markets in the world and, frankly, on the fuels side we just did not have the scale. We had only 4-5 percent of the retail gasoline market. Together we and BP now have about 12 percent, which ranks us with the leaders. On the lube side we are even better. We had a 10 percent share and now together we have about 18 percent, which I believe makes us number one.

We had originally projected savings of $400-450 million as a result of the combination. Now our estimates are higher. We are committed to this joint venture – this is not a Mobil exit from Europe. We want to make this company a top competitor and a company that can attract growth capital in the future.

Beyond Mobil and beyond Europe, our future is bright. Many people have tried to sink this industry but they have not succeeded because it does one hell of a good job of providing goods and services that are absolutely essential to making the world go round. The future is probably brighter than it has been for quite a long time. Many countries are opening their doors to investment and technology is taking us to places that in the past were either too difficult or too expensive.

Above all, energy is a growth commodity, especially in the developing world. This does not mean that all our problems are finished. There are a lot of tough issues out there. The first is the rising competition for investment

capital. The second is the threat posed by trade sanctions and the third is the call to action over global climate change. These issues will help shape our future. They will influence where we make investments, how we use energy and how much we are going to pay for it.

Competition for capital

Last year, in what many people in the industry thought was a bit of over-exuberance, Mobil spent roughly $7 billion in capital in 135 different countries. Even at this level, we could not fund all of the opportunities that we saw available to us – not many companies can. We funded the best projects that were available to us. We looked at a blend of geological risk, market risk, economic risk and political risk. Host government policy is a big factor in that balancing act. Some nations have welcomed us with fair and transparent tax laws, with a level playing field and with a real desire to have progress for their citizens.

For example, UK policies have created an absolute world-class oil and gas province in the North Sea but there are other nations that have not got the message yet and think that either having large reserves in the ground or a big market available is enough and government policy and government regulation do not count. Firstly, amount of capital flowing across your borders is a report card. If you are not getting your share of foreign investment today, when this entire energy industry is going global, you may have a problem at your end. We in the industry are constantly looking around for best practice so that we can benchmark our own operations against that best practice. Sometimes the answers are not very flattering but they lead to good constructive action. Governments probably should do some best practice benchmarking of their own to see who is in fact getting the foreign investment and who is not, and ask themselves why. There are a lot of success stories out there – the United Kingdom, Singapore, Venezuela, and now the new emerging nations in the Caspian area. If you look at what has made them successful, their formulas are not opaque – what they do well can be adapted in other places.

My second message is that time is short. We're in real time. Expectations are rising for economic development and for a betterment in standards of living. The energy industry is moving fast also. There are just too many places that we could go, so we are not going to go to the places that are not attractive. If the countries that are falling behind get their act in order, then somebody will make the investment. Let's hope it works out for both of us.

Free trade

This is a tough one for me because unfortunately the United States plays Jekyll and Hyde on this. The United States currently sanctions roughly 72 percent of the world's population in one form or another. This is not good news because those are our potential customers. Also, a great majority of them are decent, hard-working people who cannot understand why we in the United States want to punish them. They do not have the means to effect all the changes in their country that my government would like to see happen. It is hard to argue with sanctions from an emotional point of view. After all, all of us want to discourage terrorism and human rights abuse; we want to get rid of unfair trade practices.

The fact is that unilateral sanctions simply do not work. The United States has embargoed Cuba now for 37 years. The sanctions have probably hurt everybody except Fidel Castro.

Now there are questions about many countries including Nigeria. Here, Mobil is the number two producer; we oversee joint ventures that produce about 500,000 barrels a day of oil, of which Mobil's share is roughly 40 percent. We go where the oil is; we go where markets are; we don't always go to nations that share our own standards. Once we get there, we don't have the ability or the

Sir David Simon CBE, Chairman, The British Petroleum Co plc, and Mr Jim Sullivan, Vice Chairman, Chevron Corp

Mrs Sue Karlsen, IP Council Member and General Manager, Exploration and Production, Fina plc

IP Lunch

Mr LE Johnson, Executive Vice President, Supply Trading and Transportation, Mobil Oil Corp., Mr P Fleming, BHP Petroleum Ltd, Mr RJR Cairns, Managing Director, Hardy Oil and Gas plc, and Mr I Ward, IP Director General

power to dictate policy or to change governments. It is frustrating. We feel that by being there we help not just the people who work for us, not just the people who live where we operate but that by example and by constructive involvement we help bring countries along the path of good solid development.

We have over 1,100 people in Nigeria, of whom 95 percent are Nigerian. Some of them have worked in Mobil operations around the world. That has helped better their own career prospects but it has also given them a very unique and broader view of the possibility that economic development and democratic progress can go hand in hand. We transferred technology and expertise and established apprentice training programmes. Mobil, and other companies, have done this. We have brought electricity to many towns and built roads; we have connected remote villages to centres of development and installed fresh water supplies; we have built libraries, hospitals and schools. We have grown a generation of Nigerians who now view the world from a different light. Would they be better off if Mobil were thrown out of their country?

Unfortunately, it is easy for our critics to overlook the good things that we do. They would say that if you pull the western oil companies out, then you are going to effect an immediate change in Nigeria. I think that is baloney. There are many other companies who are willing to step into our shoes and the large majority of them would not be supportive of local issues as we are. Suppose nobody came in and the economy collapsed, would that bring it to a more democratic condition? My experience says that secular, tolerant, democratic societies thrive under conditions of prosperity, not under conditions of poverty.

I want all those folks living there to have a better quality of life but I cannot dictate – it has to happen. How is it going to happen? We impress on government officials the importance of being part of what we consider to be the society of western nations. We need to be a role model by the way we behave environmentally, ethically, politically and socially. I think the oil industry as a whole does a very good job here and in many other countries.

Caspian region

I am also worried about central Asia where the Caspian region has the potential to develop into one of the world's most important oil exporting areas. Last year, Mobil had the good fortune of acquiring a 25 percent interest in the Tengiz oilfield in Kazakhstan, in which Chevron is a 50 percent partner and the government owns the other 25 percent. There are roughly 6 to 7 billion barrels of recoverable reserves in place. That alone could provide the entire region with hope for a better future and maybe a nice profit for my shareholders.

There are other opportunities, Azerbaijan, Uzbekistan, Turkmenistan, but there are some really big issues in the way. Firstly, the question of the ownership of the reserves in the Caspian but almost more importantly how to get the oil to market. Looking at a map, one would assume that the Kazaks could export their oil southwards through Iran to the sea. They cannot. American sanctions do not allow it. Central Asia and Iran are simply too important for the West to walk away from. We need to work to bring Iran back into the fold of the free nations of the world. It will not be an easy task. Unfortunately, my government, that runs on a two-year lifecycle with respect to re-electing a Congress, finds it very tough to look at a problem that is not going to be solved tomorrow and is not going to make good political headlines the day after.

It is an issue we all face. It is too big to leave to the politicians. I urge you to continue to speak out because we simply have to change the US view. I don't mean that we should support terrorism or pander to people who are not good

(Left to right) Mr J Bostock, Legal Manager, Oryx UK Energy Co, Mr J Box, Chief Operating Officer, Oryx Energy Co, Mr J Saint, Chairman Oryx UK Energy, Mr A Derman, Manager, Commercial Transactions and Frontier Exploration, Mr R Keiser, CEO and Chairman, Oryx Energy Co, and Ms P Horsfall, Managing Director, Oryx UK Energy Co people but we have to understand that in a country like Iran there are some good people who aspire for Iran to be part of the community of free nations and we have to help them to accomplish that. Simply putting on sanctions is not going to do a thing. It looks good in the newspapers but it is worthless.

Global climate change

This is a rapidly evolving international debate. By the end of this year the nations of the earth are supposed to reach a plan to reduce man-made emissions of greenhouse gases from the developed nations for the years after the turn of the century. Now this sounds like a rather esoteric subject but let me assure you it is not. It will impact your job, your home, your lifestyle, because it will have an important impact on access to energy sources and on what they will cost. There are at least half a dozen proposals being bandied about. The United Kingdom, for example, proposes that after the year 2000 we should have a mandatory cut of 5-10 percent from 1990 levels by the year 2010, by the developed countries. A cut of that nature can have a very serious disruptive and depressing impact on economies and the net result will be that neither the private sector nor the public sector can continue to fund other programmes.

This is not a free ride. Politicians should understand that companies will not be able to bear the cost of this kind of regulation; that the cost will be passed on to the public and on to the economy and have major devastating effects.

Some people would disregard the subject. Frankly, we at Mobil believe there is a potential risk here that we should take very seriously, even though we are the first to recognise that the scientific evidence to date is simply not conclusive. What do we want? We want some good hard science before we start making legislation.

We need to consider a number of points when we debate this issue. The first point is to keep in mind social and economic costs and weigh them against our natural desire to take every step possible to improve the environment and the quality of the air and the place that we live in. You can do a lot of estimating here but some economic models would show you that the kinds of reductions that are being bandied about for post-2000 would result in a decrease in GNP or GDP of roughly 2.5 percent. In many places that can mean instant recession. Again, this is not a free ride. Secondly, very few nations can meet even the interim non-binding standards which were agreed for the year 2000. The United Kingdom is one of those nations that probably can meet that interim test but you have to understand that the reason is that you're substituting a lot of coal with other fuels. Eastern Europe can probably meet the test because they're closing down a lot of inefficient plants and replacing them with new capacity. But even these countries and even these areas will have difficulties after the year 2000 to achieve the kind of reductions that are being very casually talked about at these UN sessions.

Thirdly, and probably more importantly, we do not believe that there is a chance of accomplishing anything unless we make this a universal issue. The logic is overwhelming. By the beginning of the next century the developing nations, which are not involved in this process right now in terms of mandatory restrictions, will be emitting more emissions that the developed countries, so even if the developed countries take it upon themselves to make these Draconian cuts, the amount of greenhouse gas emission concentration will not be impacted. I urge you to get involved in the debate. It cannot be solved by taking lead out or putting catalysts in exhaust pipes. This deals with the very fundamental issue of combustion and you cannot get around it.

To conclude, it is a great time to be in this business. I have been in it for 35 years and I wish I could join it today rather than 35 years ago. We are engaged in some very important issues and debates that can really shape not just what happens to us as an industry but really the whole world economy. Our glory days are not behind us and neither are the challenges. Competition for capital, world trade and global climate would make a full agenda for any generation. I'm happy that we're involved in it. I would urge you, not just to criticise, but to be constructive. It is harder; it takes time, thought and commitment and, probably most difficult of all, it takes a willingness to try to communicate with people who have interests very different from ours. To sum up, I think that is the challenge that we face in this wonderful next millennium.

(Left to right) Mr Ian Ward, IP Director General, Mr Lucio Noto, Chairman and Chief Executive Officer, Mobil Corp, Mr David Setchell, IP President and Managing Director, Gulf Oil and Mr John Banfield, IP Vice-President and Director, Mobil Europe and Central Asia Ltd

BP and Mobil present a united front in Europe

BP and Mobil announced the pooling of their European refining, marketing and lubricants businesses in February last year in an unprecedented step to cut costs and improve their competitive position in what is becoming an increasingly cut-throat market. Like their competitors, the two companies had been battling to contend with the continuing surplus refining capacity throughout Europe as well as significantly reduced profit margins on gasoline and other products sold at the pumps. This was particularly the case in the United Kingdom which is still reeling from the effects of the petrol pump price war waged over the past year (see page 124) and in France, too, where the hypermarkets are fiercely battling to retain their market share.

By Kim Jackson

The joint venture, approved by the European Union last August, pools assets with a book value of some \$5 billion – \$3.4 billion from BP and \$1.6 billion from Mobil – to create a pan-European partnership with net annual sales of over \$20 billion. The combined operation has a 12 percent share of the fuels market in 43 countries and is the largest supplier of lubricants with 18 percent of the European market.

Fuels and lubricants operating partnerships – meeting the regional legal, fiscal and social circumstances – are currently being established in each of the countries in which BP and Mobil operated prior to the joint venture.

Timing of agreements will vary according to the complexity of the current business, completion of appropriate employee consultation and, in some non-EU countries, the need to obtain local approvals.

The United Kingdom, France, Germany, Turkey, Portugal, Spain, Ireland and Norway have already signed the local agreements and implemented the joint venture and have embarked on a 'reimaging' programme of their respective retail networks. Both BP and Mobil are confident that all partnerships will be operational by the end of the year and reimaging well underway.

BP, with a 70 percent share, will operate the fuels partnerships, including refining and manufacturing and their commercial and retail networks, including some 5,600 BP and 3,300 Mobil service stations. BP's distinctive green colouring and shield logo will be adopted at the Mobil sites, while pole signage at all outlets will also carry the Mobil Lubricants branding and the joint venture logo.

Mobil, on the other hand, with a 51 percent share, will operate the lubricants partnership, running the blending plants and marketing the lubricants and special products of both companies.

Unlike the fuels side of the business, there are no plans to consolidate the lubricants range under one branding. Graham Ellis, Chairman and General Manager, Mobil Oil Company Ltd, explained: 'The distinctive marketing offers of the Mobil, BP and Duckhams lubricants brands will provide an opportunity to extend growth potential across all marketing segments in which we want to be, while achieving significant economies of scale by operating as if

one company. This would not be possible with just one brand which cannot be all things to all customers.'

This radical restructuring of the two companies' European downstream operations will, inevitably, involve job losses – currently estimated at some 2,000 to 3,000 from the combined 17,500 non-service station workforce. It will also involve the relocation of a number of employees. In the United Kingdom for example, the combined operation's headquarters will be based at Mobil's offices in Milton Keynes and staff at BP's Hemel Hempstead operations are due to move next month.

The joint venture does not cover all BP and Mobil downstream operations. Global activities such as international trading, aviation, marine, gas marketing and shipping have been excluded because of the complexities that would have been involved.

Pre-joint venture position across Europe

BP	Mobil
Downstream operations in 18 countries	Downstream operations in 22 countries
Some 825,000 barrels of oil products sold per day	Some 550,000 barrels of oil products sold per day
5,600 European retail sites	3,300 European retail sites
8 percent of European fuels and lubricants markets	4 percent of fuels market 10 percent of lubricants market
Currently owns/has interests in eight European refineries	Currently owns/has interests in six European refineries
Refining capacity of 760,000 barrels per day (b/d), which will reduce to 575,000 b/d after the sale of the Lavera refinery in the south of France	Refining capacity of 350,000 barrels per day
15,500-strong European downstream workforce, of which 4,000 are service station staff	8,000-strong European downstream workforce, of which 2,200 are service station staff

Firm financial footing

Annual pre-tax savings of some $400-500 million were originally forecast to be realised within the first three years of the joint venture, the bulk of which to be accrued over the first year. However, Lucio Noto, Chairman and Chief Executive Officer, Mobil Corporation, commented at the IP Week Luncheon (see page 112) that the final numbers would be higher, as further potential for asset rationalisation had been identified.

According to BP Chairman Sir David Simon CBE, some 60 percent of the cost savings will result from the elimination of duplication of services with a further 25 percent coming from synergies in marketing and distribution, with economics of scale in pooling purchasing volumes accounting for the remaining 15 percent.

The companies also expect to realise in excess of $200 million in divestment proceeds from the rationalisation of marketing assets and the disposal of surplus office premises.

Severance, restructuring, rebranding and other implementation charges are forecast at some $740 million pre-tax, to be shared by the companies in line with their interests.

Platform for growth

BP Chief Executive John Browne believes that the BP-Mobil joint venture will not just create costs savings but will also provide a 'tremendous platform for growth'. Indeed, the deal puts the new partnership in the 'top tier' of European refining and marketing allowing it to compete head to head with larger rivals such as Exxon and Shell.

The new alliance will be particularly strong in southern Europe, with a 20 percent market share in Portugal, 18 percent in Greece and 10 percent in Spain, reports Dr Rolf Stomberg, Chief Executive, BP Oil. The partnership will also account for some 9 percent of market share in France – on a par with, or slightly bigger than, the other two major internationals and slightly behind the two large national companies Elf and Total. (The French market is unusual in that the independents hold a 50 percent share.)

The companies also expect the joint venture to provide a firm foundation on which to push for further growth in the central and eastern European market place. Indeed, this year they plan a concerted push in Poland and hope to gain a 'substantial market presence' by the end of the year.

Rationalising refinery capacity

Because of the continuing surplus refining capacity and poor margins, both BP and Mobil had already embarked on rationalisation plans in Europe prior to the deal.

BP announced last year that it planned to retain only those plants that were among the top 25 percent most efficient in a given region and, at the same time, unveiled plans to sell its Lavera refinery in France, close the Pernis section of the Nerefco refinery in Rotterdam and upgrade its Europoort site.

For its part, Mobil closed its Woerth refinery in Germany in 1995.

All rationalisation/upgrading pro-

Graham Ellis, Chairman and General Manager, Mobil Oil Company Ltd (left) and Chris Moorhouse, Chief Executive, BP Oil UK Ltd (right)

grammes planned prior to the announcement will continue apace, even if operating control changes hands. As outlined earlier, BP will manage those refineries producing fuels, eg the Mobil-owned Coryton refinery in the United Kingdom, while Mobil will operate those facilities primarily producing lubricants and special products, for example the Llandarcy refinery owned by BP in South Wales.

Focus on United Kingdom

The joint venture between the two companies became operational in the United Kingdom on 1 November last year.

According to Chris Moorhouse, Chief Executive, BP Oil UK Ltd, the philosophy behind the joint venture was to 'bring together the best from both companies to create a more efficient and effective operation which provides better value for the customer'.

He said that the key issue now was to get this message over to the consumer and as a result, the joint operation has embarked on a £10 million-plus multimedia advertising campaign in the United Kingdom. Some £25 million is also being invested in rebranding the 2,000 UK service station network, a process expected to be completed by the end of this year.

Both companies stress that Esso's Pricewatch campaign did not influence the decision to pool their operations. BP, for example, comments that it was already responding to petrol price cutting by the hypermarkets when Esso launched Pricewatch early in 1996 through the BP Focus on Price campaign. The forecourt price war cost BP some £85 million last year.

Mobil, meanwhile, had in place for some time its very successful Premier Points loyalty scheme. Both campaigns remain and are expected to help BP-Mobil retain a 'top tier competitive position in the market-place', states Mr Moorhouse.

That said, Pricewatch has had a seriously detrimental impact on the UK petrol retail network as a whole. As indicated in this month's *Retail Marketing Survey* supplement, the past year has been a tough one with most operators struggling to cope with wafer-thin profit margins and many of the smaller independents have been particularly hard hit. As a result some 1,500 petrol outlets have closed during 1996.

Indeed, profit margins reduced to the point where many service station operators are now in the position that they make most of their money from selling food and other household goods and ancillary services such as car washes.

Both BP and Mobil recognise the increasing importance of non-oil sources of income, such as forecourt shops. Indeed, Mobil had embarked on a small, focused experiment with the Cullens and Budgens supermarket chains prior to the joint venture announcement, while BP had unveiled similar trials with Safeway stores. The first opened at Basildon last October.

Both companies expect the superstore ventures to continue. For example, assuming trials are successful, some £100 million is to be spent on developing a network of around 100 jointly owned BP-Safeway food and fuel sites across the United Kingdom over the next few years.

While BP is operating the fuels side of the business, Mobil is keen to stress that it is 'not selling out' on the fuels sector. 'The joint venture allows both companies to play to their strengths while taking advantage of the synergy and scale provided by pooling resources,' commented Mr Ellis. 'While Mobil is operating the lubricants partnerships we have retained a 30 percent interest in the fuels business and are keen to see this develop in terms of healthier margins and returns'.

Numbers of combined retail sites

Austria	520
Benelux	740
France	920
Germany	1,340
Greece	1,640
Portugal	270
Spain	530
Switzerland	390
Turkey	800
UK	2,000

The road ahead

Both BP and Mobil believe that it is unlikely that any other downstream joint ventures will develop in Europe along the same lines because the BP-Mobil downstream operations were 'uniquely complementary'.

For example, not only was there little overlap between the markets served by their three lubricants brands, out of the 2,000 service stations in the United Kingdom only 60 outlets are competing directly. 'It is the synergy between our operations that will allow this partnership to work effectively and flourish,' commented Mr Ellis.

Indeed, the recently announced Gulf, Murco, Elf joint venture (see page 122) illustrates this point as the arrangement appears to centre on refinery rationalisation and all three companies plan to continue to market fuel under their respective brandings for the foreseeable future.

Furthermore, the other majors already have substantial market share in many European countries and any potential merger between their operations would, in all likelihood, be stopped by the European Union on the grounds of creating a dominant market position.

It also seems unlikely that the European upstream sector will follow suit because of the legal and other complexities that would ensue in light of the large number of consortia involved in such operations.

Independents' concern

The European Union of Independent Lubricant Companies (UEIL) has expressed concern at the dominant position that the BP/Mobil joint venture will be creating in the lubricants sector in Europe.

According to a study carried out by UEIL, three companies (Esso, Shell and BP/Mobil) will, in future, control over 60 percent of base oil supplies. The same three will have a lubricants market share of 42 percent of which BP/Mobil will have the largest share – 18 percent.

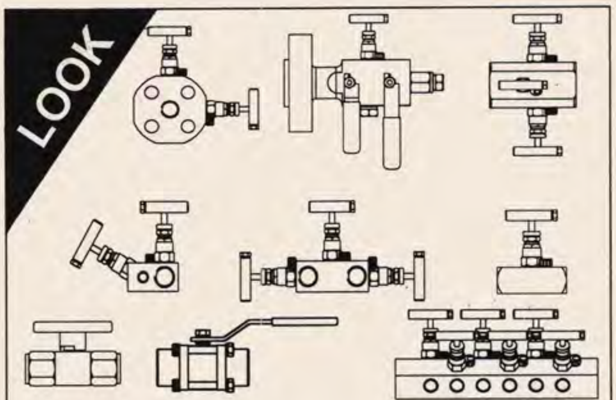
UEIL is worried that if any (more) European base oil refineries are closed, there could be a tightening of western European base oil supplies.

Edward Hateley, a Vice President of UEIL and a Director, Houghton Vaughan plc, acknowledged that the new venture would result in considerable cost savings for BP and Mobil, adding: 'There are other benefits besides costs which BP/Mobil will gain. They will benefit from having the largest market share and a strong brand image.'

The answer for the independents, Mr Hateley stated, 'Lies in their concentrating on those things they are good at – being flexible, innovative and providing the products and services which customers need.'

When reviewing the proposed merger last year, the Merger Task Force of the European Commissions DGIV (responsible for competition) sent to UEIL a lengthy questionnaire.

In response to this, and in discussions with the Merger Task Force, UEIL detailed the complex structure of the lubricants industry in Europe and the relative positions of the major oil companies and the independents.



Change of colour for London buses

Transport Minister Mr John Bowis MP attended the launch of London Transport's campaign to adopt the use of ultra-low sulfur diesel for all London's bus operators. In his address, he pointed out the suitability of the location, Marble Arch – a stone's throw from Speakers Corner, a famous landmark for launching campaigns, and Oxford Street, one of the capital's busiest roads. He mentioned his delight in the co-operation between bus operators, fuel suppliers and catalyst manufacturers in their response to the initiative to clean up bus exhaust emissions.

The trials

The initiative stems from an emissions research programme conducted by the Institute of European Environmental Policy (IEEP) on behalf of London Transport in spring 1996. The trial programme estimated the effects of ultra-low sulfur diesel and exhaust treatments both fleetwide and London-wide. Estimations were based on research carried out by Millbrook Proving Grounds for LT Buses.

The IEEP study suggested that the majority of traffic emissions are caused by heavy goods vehicles and cars and that buses are responsible for only a small proportion of pollution. Based on the ratio of 1.3 passengers per car, one fully loaded double decker bus is the equivalent in capacity to 60 cars on the road.

Ultra-low sulfur diesel

The current use of ultra-low sulfur diesel by part of the fleet is bringing a reduction of 8 percent in particulate emissions compared with current specification diesel – or 15 percent compared with pre-October 1996 diesel.

If the whole London bus fleet converts to the tested fuels, the amount of particulates being emitted into the atmosphere, it is calculated, will be reduced by 36 percent – the equivalent of 33 kg of coke per bus per year. Other benefits include the reduction of sulfur oxides (SOx) by 98 percent, carbon monoxide (CO) by 17 percent and nitrogen oxides (NOx) by 8 percent.

Oxidising catalysts

Further improvements to emissions can be achieved as catalysts are fitted to Routemasters and other buses. Oxidising catalysts fitted to the traditional red Routemaster buses used in conjunction with highly refined diesel make it possible to reduce emissions from older buses to the same levels as the newer Euro 2 buses. The 250 oxidising catalysts currently in use will remove a further 16 kg of particulate material per bus per year. However more work is needed to establish their

Mr John Bowis MP climbs aboard a No 73 Routemaster with Mr Clive Hodson (left), LT Buses Managing Director

Comparison of test results

	Stagecoach East London	Cowie South London		
	Shell low sulfur with catalysts*	Greenergy City Diesel	Further effects of catalysts	Combined Greenergy with catalysts
Nitrogen oxides	-	-7%	-	-10%
Total hydrocarbons	-45%	-	-65%	-65%
Carbon monoxide	-42%	-16%	-74%	-78%
Particulates	-50%	-41%	-50%	-71%
Fuel consumption	-	-	-	-

* Compared with Shell low sulfur without catalyst

on-going efficiency over a period of time. Significant reductions would be achieved in CO (46 percent), hydrocarbons (HC) (80 percent), NOx (11 percent) and particulate matter less than 10 microns in diameter (PM10) (12 percent) if catalysts were fitted to all large buses.

The catalysts formulated by Johnson Matthey/Eminox convert carbon monoxide and all types of hydrocarbons into less harmful carbon dioxide and water, reducing pungent diesel odour and the level of particulates in the exhaust stream. The success of the catalysts in London Transport's trials is sending a positive message out to public and private sector heavy goods vehicle operators that the technology exists to make significant reductions in air pollution. To have a significant effect on long-term pollution levels it is essential that catalysts should be used in conjunction with cleaner fuels and more sophisticated engine designs.

The fuels

The ultra-low sulfur diesel fuels tested by London Transport were supplied by Greenergy, Shell and Total.

Cowie South London and Stagecoach East London, two of the bus service operators for London Transport, volunteered to undertake trials of various pollution control methods in the three-month pilot study of green fuels and new technology. Results were assessed with a Department of Transport approved opacity meter to test for visible smoke every six weeks on all vehicles involved in the trial.

Cowie South London converted 91 buses to run on Greenergy's City Diesel. Of that total, 18 buses were fitted with Johnson Matthey oxidising catalysts.

Visible smoke from the Cowie South London buses was immediately reduced when they used City Diesel. The opacity meter readings were significantly reduced for the majority of the vehicles. Those vehicles fitted with oxidising catalysts showed a further marginal improvement in opacity readings. There were, however, no significant changes in fuel consumption.

In another trial Gold Arrow buses have been fuelled with Greenergy City Diesel since October last year. The company, which operates Routes 7 and 23 along heavily congested Oxford Street, reported a noticeable reduction in smoke emissions without any change in the performance of its vehicles. The same results have been reported from London General which operates Route 11 from its Waterloo garage and also switched to City Diesel last October.

Stagecoach East London converted its entire fleet of 600 vehicles to operate on Shell low sulfur fuel (0.05 percent sulfur) which became the European Standard from 1 October 1996. The test compared the use of this fuel with and without the oxidising catalyst.

According to London Trasnport, in this instance neither the change from standard diesel to Shell's reduced sulfur diesel nor the use of oxidising catalysts made any consistent difference in the visibility of exhaust smoke or its opacity, as measured by the Department of Transport approved meter. A more sophisticated analysis of the particulates showed that the numbers of particles had decreased slightly, whilst their mass showed a substantial reduction.

Costs

The move by bus operators to switch to ultra-low sulfur diesel will be further enhanced by the reduction in duty, announced in the Chancellor of the Exchequer's November Budget, which will come into force in May. Many of London Transport Buses' remaining operators are likely to change to the greener fuels when existing fuel supply contracts expire.

The National Society for Clean Air (NSCA) welcomed the new measures to reduce air pollution in Central London through the introduction of new technology and greener fuels. The NSCA has campaigned for several years for tax breaks to encourage bus operators to use cleaner fuels. Mr Richard Mills, NSCA Secretary General, said: 'What we now need is for the government to give local authorities the power to ensure that all bus companies comply with appropriate environmental performance standards.'

Emma Parsons

Red Routemaster going green
Photos by Emma Parsons

Gulf, Elf and Murco converge on Cheltenham

Senior appointments have recently been announced in the new company to be formed from the merger of UK downstream arms of Gulf, Elf and Murco. The three companies are now in the process of merging their UK refining and marketing businesses. Final agreement is expected shortly, with the launch in mid-year.

By Carol Reader

Recent senior appointments in the management team include:

John Morris – Manufacturing Director (currently Refinery Director, Elf)

Colin Chapman – Supply and Transportation Director (currently Business Services Director, Gulf)

Danny Roden – Retail Sales Director (currently Retail and Distributor Sales Director, Gulf)

Norman Calder – Commercial Sales Director, responsible for all non-retail fuel sales and for the lubricants business (currently Director for Fuel Sales and Trading, Gulf)

Chris Metcalfe – Corporate Services Director (currently Corporate Services Director, Elf)

Malcolm Jones – Strategy and Planning Director (currently General Manager, Commercial, Elf)

Last November when the merger was made public it was stated that **David Setchell**, who is currently Managing Director, Gulf Oil, and IP President, will become Chairman of the new company, which as yet is unnamed. **Christian Cléret**, currently Managing Director, Elf Oil UK Ltd, will become Managing Director. **Steven Wylie**, at present Finance Controller of Murphy Eastern, will become Finance Director.

Given the tough year experienced in 1996 by all UK retailers as they struggled to come to grips with intensive competition, the new grouping, following the path set by BP and Mobil earlier in the year, is looking for major benefits of scale and improved efficiencies from the combined operation. Total annual cost savings of £50 million have been forecast for the new company.

Mr Cléret explained the logic behind the merger plans, saying 'The difficulties currently faced by the oil refining and marketing industry are well known. We recognise today that, for all three of us, this merger is the best option for a promising future as a new force to be reckoned with in the UK market.'

The combined retail network will total almost 1,500 sites, with around an 8 percent share of the UK fuels market. Some rationalisation would appear to be likely, if only for geographical reasons. At the same time every effort is being made to utilise all the resources of the three companies, in the hope of mitigating job losses.

In his contribution to our *Retail Marketing Survey*, Danny Roden, Retail and Distribution Director, Gulf Oil, said, 'The merger offers the prospect of a strong new player to compete even more effectively.'

Fuels and lubricants will still be marketed under separate brands. Talking to an Elf house magazine, Alain Dujean, Commercial Director, Elf Oil UK Ltd, said, 'The three brands will stay in place. The creation of a completely new brand has been ruled out on the basis of the value of the existing brands and in due course the new company may unify under a single brand.'

In fact at present there are more than the three main brands since Murco also includes under its umbrella some EP branded sites, while Gulf has two retailing subsidiaries, Telegraph and Action, though the parent company is currently undertaking a programme to rebrand the Telegraph sites to Gulf, particularly in north Wales and the northwest.

In the meantime Elf is benefiting from a new alliance with Somerfield, the supermarket chain, to develop forecourt supermarkets in Balham and Chiswick in London, with the possibility of further development in the future. Elf has launched a chain of 40 neighbourhood shops under its brand 'Le Shop'. Each has an area of up to 2,000 square feet. More are planned, following the successful launch of the first batch last spring. Along with other petrol retailers, the company is building up non-fuel sales in order to boost income. This, it is claimed, is the first

instance of supermarkets on forecourts – which might be small in comparison with supermarket stores but are large in forecourt convenience store terms. Elf's Le Shop stores offer a wide range of goods at supermarket prices. The ultimate in this line of thinking, which is being considered, would be to operate shops with no pumps and no petrol.

Murco is also forging a similar link – with Costcutter Supermarkets. Following initial testing it plans to introduce the concept at both company and dealer sites during the current year.

For its part Gulf is very active in seeking new retail business and is introducing new features to its forecourts, such as in-store bakeries and fast-food facilities.

The new company, with headquarters at Gulf's present base in Cheltenham, has already decided to rationalise its refining operations which will be concentrated at the Elf/Murco refinery at Milford Haven (capacity: 108,000 barrels per day). Processing of crude at the nearby 115,000 b/d Gulf refinery will cease, while lubricants will continue to be manufactured at Silvertown in east London, where Gulf had its roots back in 1896. Gulf also proposes to sell its 50 percent interest in the Pembroke Cracking Co to Texaco, its joint partner in the project.

Last September, the Elf Milford Haven refinery was upgraded with the construction of a £71 million hydro desulfurisation unit, necessary in order to lower the sulfur levels in diesel to meet EC standards introduced in October.

Commenting on the merger, Mr Setchell said, 'This merger involves taking difficult decisions today so that the new company and its employees will reap success tomorrow. In a highly competitive and demanding environment the new company will be better placed to serve its customers.'

	Gulf Oil (GB) Ltd A wholly owned subsidiary of Chevron Corp	**Elf Oil UK Ltd** A wholly owned subsidiary of Elf Aquitaine	**Murco Petroleum Ltd** A wholly owned subsidiary of Murphy Oil Corp
Employees:	640 (excluding service station staff)	552 (excluding service station staff)	130 (excluding service station staff)
Refinery:	Milford Haven – Waterston (100 percent as operator) Pembroke Cracking Co (50 percent ownership)	Milford Haven (70 percent interest as operator)	Milford Haven (30 percent interest, non-operator)
Distribution:	Owns and operates three terminals (Cardiff, Ellesmere Port and West Bromwich) Customer service facilities at Grangemouth and West Thurrock 5 percent interest in Mainline pipeline	Interest in four terminals 10 percent share in the Mainline pipeline	Three wholly owned terminals (Bedworth, Theale and Westerleigh)
Service stations:	450 sites	601 sites	430 sites
UK market share:	4.4 percent	2.9 percent	0.9 percent
UK turnover	£1.8 billion	£1.2 billion	£400 million

No end in sight for Pricewatch

In January 1996 Esso stunned the rest of the retail industry by launching Pricewatch right across Britain. One year on, Petroleum Review *asks if the strategy has been a success or whether it has simply ruined profit margins for everyone in the market.*

Pricewatch was a major turning-point for the entire UK petroleum retail market. Never before had an oil major competed so aggressively on price on such a wide scale. With the exception of a handful of largely rural sites, each Esso station now monitors the price of petrol at any supermarket within a three mile radius and any other station within a one mile radius. The oil giant falls short of a cast-iron guarantee on cost but the aim is to match the lowest in any given area, in order to give Esso customers 'prices that will normally be unbeatable'.

So why did Esso launch Pricewatch? According to Economics and Planning Manager Mark Cash, it was simply a case of responding to customer need: 'We carried out an extensive range of market research and, aside from convenience of location, price came out as the most important factor.' Since 70 percent of the UK population already lives within a two mile drive of an Esso service station, this meant that cost became the number one priority for the company and spelt the end of the road for the famous Tiger tokens. Down came the wine glasses from the shelves and up went those tiger eyes which were to keep such a close watch over competitors' prices during the coming months. All Pricewatch retailers now monitor price changes within their particular area and report them back to Esso on a daily basis.

By Susannah Cardy

Change of fortune

There can be little doubt that Esso is already reaping the rewards of Pricewatch in volume terms. The continuing growth of the supermarkets during the first half of the 1990s had resulted in a slow haemorrhaging of Esso's market share. Yet, by the middle of 1996, this had returned to historic levels, up from a sixth to a fifth in just one year – the equivalent of a million more motorists driving on to Esso forecourts every week.

But there is a large price to be paid for such a policy. Oil consultancy Wood Mackenzie estimates that Pricewatch cost Esso £200 million in 1996. 'Increased volumes are all very well,' commented Mr Stephen Brooks, a Principal Consultant at Wood Mackenzie, 'but really one needs to look at profitability. A market share of 16 percent with fairly good profits and stability may be better than 20 percent when you're not able to make much money.' Esso openly admits that it was forced to sell below cost at times last year but stresses that this only happened at a limited number of sites and on a limited number of occasions. 'It's not something that we want,' said Mr Cash, 'but we are not prepared to be undersold.'

So has it really been worth it? Esso believes that Pricewatch was necessary in order to cement its long-term market share at around 20 percent, thereby maximising scale economics and providing a firm footing for its future business. 'Our volumes are up and this has allowed us to have significantly lower unit costs which, in turn, enables us to compete more effectively with the supermarkets,' according to Mr Cash. 'I suspect that if we had not launched Pricewatch more Esso retailers would have closed their sites last year.' Even some competitors admit that Pricewatch is working well for Esso. 'They have the best distribution economics in the retail market,' said Mr Bruce Petter, President of the Petrol Retailers' Association (PRA). 'If they can get their costs down to a point where they can operate profitably at such low levels, they will win out and all credit to them.'

A major headache...

For the rest of the market, however, Pricewatch has been a major headache. The other oil majors generally followed Esso's lead – albeit on a more selective basis – and the result was a year of wafer-thin margins. In April and May, fuel gross margins dropped below two pence/litre. According to Wood Mackenzie, even the lowest cost operator cannot break even at such low levels. The disapproval of some majors is clear. 'Some would say that Pricewatch is a rather old-fashioned marketing strategy or perhaps not even a strategy at all,' said a Shell spokesperson. 'How is the industry supposed to invest adequately in customer benefits when margins are so uncomfortably thin? Pricewatch has cost all the majors a lot of money.'

Last year was even more disastrous for the smaller players and independents in the market, who were less able to respond to a drop in prices. Frost, for example, lost 40 percent of its business at its lowest point in 1996 and the company's volumes are still 20 percent below pre-Pricewatch prices. Chief Executive James Frost is convinced that Pricewatch was the major factor behind this loss of trade but believes his company will survive. '1996 was our worst year,' he told *Petroleum Review*. 'If they were going to get us they would have got us then.' In total, the number of service stations in Britain dropped by around 1,500 last year, compared with an average industry closure rate of 750 per annum over the last four years. The PRA believes that smaller retailers have been very badly treated since the onset of Pricewatch but does not blame Esso directly. Instead, its president claims that the added pressures of Pricewatch have triggered off bad behaviour on the part of others in the market. 'Contracts have been broken, the price of supplies has shot up and margins have been drastically reduced,' Mr Petter told *Petroleum Review*. 'Shell, BP and Esso are behaving fairly – but others aren't.'

...for all

Ironically, the impact of Pricewatch on the grocers is less easy to determine. No market player was immune from last year's cost-cutting, of course, and Wood Mackenzie estimates that even the grocers failed to break even when margins dropped below two pence/litre. But the fact remains that the supermarkets have a lower cost base than the majors, allowing them to weather a price storm better than anyone. A spokesperson for Tesco told *Petroleum Review* that the effects of Pricewatch on its business had been 'small, because we have been offering customers the lowest prices in their local area for some considerable time'. Mr Brooks backs this argument. 'The increase in Esso's volumes,' he said, 'has not been at the expense of the hypermarkets but of the small-scale independents and other operators who haven't been able to compete.' And certainly if site numbers are anything to go by, the supermarkets did not fare too badly last year. All increased their outlets in 1996, albeit at a slower rate than the previous year – Tesco coming out top with an additional 26 sites.

Hidden agenda?

Given the intrinsic strength of the grocers, some industry sources have suggested that there may be a hidden agenda behind Pricewatch. 'Esso is not aiming Pricewatch at the hypermarkets,' Mr Frost told *Petroleum Review*. 'If Esso is to make a permanent gain in the market-place, it can only do this by forcing other market players to go out of business... Pricewatch is aimed at the dealer market and the suppliers.'

Esso firmly denies such a strategy. 'We are not targeting any particular part of the competition to get our volumes back,' claims Mr Cash. 'We are simply targeting a group of consumers who are clearly looking for cheap prices.' Nor does Esso accept responsibility for the price war and site closures of 1996. 'We never undercut the market,' points out Mr Cash. 'We launched Pricewatch by matching the cheapest existing prices so volumes were already flowing to the lowest-priced operators in the market anyway... All we're doing is responding to what the customers want and that has to be the right way for a market mechanism to work. If you don't react to customer requirements, you deserve to go out of business.' As for low margins, Esso argues that 1996 was a tough year because of the cost of oil on the international market, which rose steeply from April onwards. 'What we saw last year was not really pump prices going down,' argues Mr Cash, 'but crude and products going up.'

Anti-competitive?

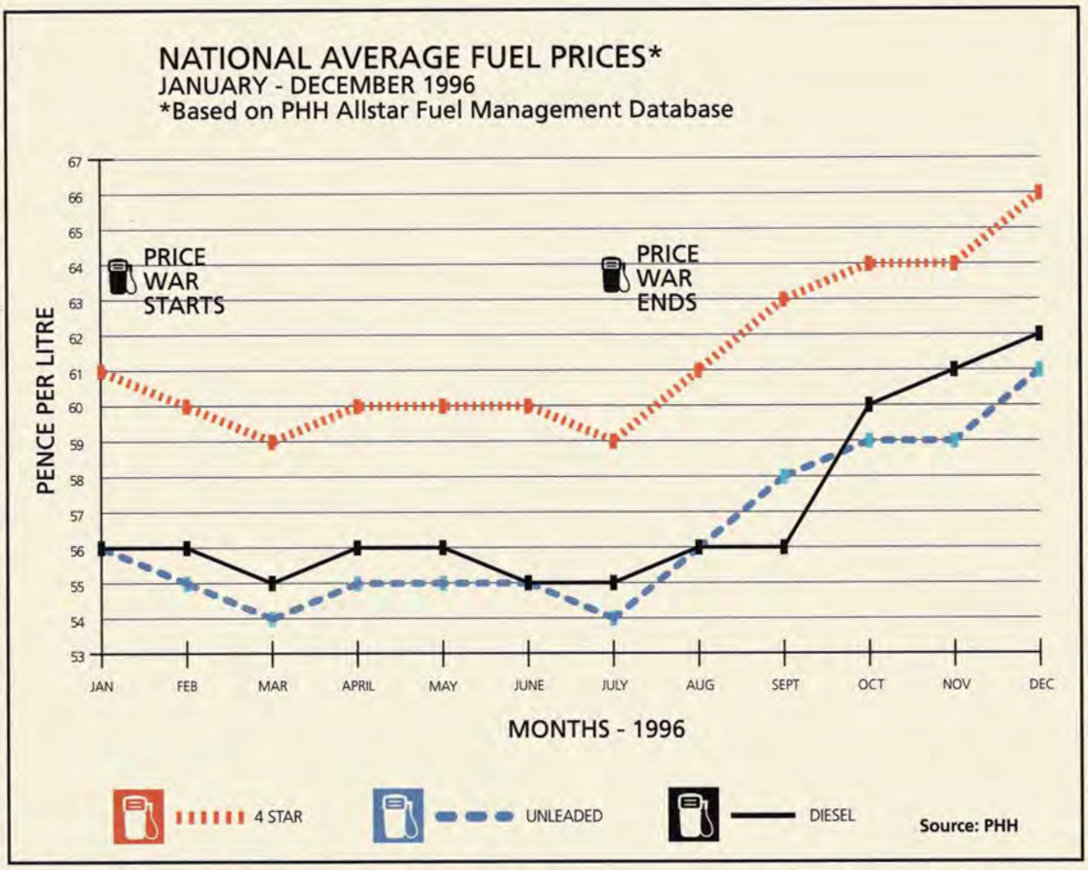
Esso may be keen to play down the impact of its new strategy on the marketplace and it is certainly true that it was not the only factor at play in the harsh retail environment of 1996. Nevertheless, it is clear that Pricewatch has toughened up the market and that other players have suffered as a result. But isn't this the very nature of competition? Well, not according to one group of players in the market, who are uncomfortably close to home for the oil giant. The Esso Licensees Retailers' Association, which represents about 300 Esso licensees, is alleging that Pricewatch has pushed Esso into anti-competitive behaviour. In January of this year, the accusation took on a more serious tone when the European Commission announced it would be considering whether or not to investigate the complaint.

According to the association's legal adviser, Mr Julian Maitland Walker, Esso is using its dominant position in the market to undercut competition and is controlling the resale price at the pumps – both practices which breach the Treaty of Rome. The association has also accused Esso of unacceptably high rent increases, which have rendered some sites uneconomic – at one particular site, the rent is alleged to have

gone up from £2,000 a year to £56,000 in under 18 months. According to Mr Maitland Walker, 'This amounts to Esso making its retailers pay for the funding of Pricewatch.'

Esso insists that it is 'a highly responsible corporate citizen, which never aims to do anything that breaks the law or even the spirit of the law'. On the matter of predatory pricing, the company points out that the subject has twice been taken up by the Trade and Industry Select Committee within the last year and on both occasions the Office of Fair Trading said that there was no case to answer for any company in Britain. 'If you're going to predatory price,' said Mr Cash, 'you need to undercut prices – we've just moved our prices to match the supermarkets. We don't predatory price and I don't think we have a dominant position.' On the subject of price-fixing, Esso insists that its price support mechanism has not changed – all Pricewatch has done is to move the competitive level down to the bottom of the market.

These are complicated legal issues that can only be skated over here. Esso has yet to be contacted by the European Commission and is confident that it will be given a clean bill of health if an investigation does take place. On a more general level, the company insists that many of its dealers are more than happy with Pricewatch. 'This is not a story of doom and gloom,' said Mr Cash. 'We've had dealers with very large volume growths who are very pleased.' He insists that no Esso dealer is being asked to do anything that others in the chain have not already demonstrated is possible. 'There is always concern over change but most of our retailers are making those changes and getting on with their businesses.'



What is in store?

So what of the future? There is general agreement that margins will never revert to pre-Pricewatch levels but doubt over how long Esso can continue to match supermarket prices. In 1996, the grocers began to rely more upon card loyalty schemes to differentiate themselves from the opposition and less on price cuts, which they knew Esso and other majors would try to match. However, Mr Brooks thinks that this situation is fairly short term. 'The hypers have a basic cost advantage and that hasn't changed. We believe that once margins get above five pence/litre, they will seek to bring prices down again and we don't believe that Esso can realistically operate over the long term with margins of just four pence.' Esso doesn't agree. 'We have highly efficient retailers operating highly efficient sites which are built very cost-effectively,' said Mr Cash. 'I think we can be and will be as competitive as the supermarkets.'

Despite the fact that Pricewatch is all about cheap petrol, some industry sources are also predicting higher prices for the public – indeed some see it as the whole raison d'être behind the strategy. 'Esso is not spending £200 million as part of some philanthropic scheme towards customers,' said Mr Maitland Walker, 'it is increasing market share and reducing competition and reduced competition is likely to mean much higher prices eventually.'

Esso remains adamant that Pricewatch is not about knocking out competition. 'That's ridiculous – we're just matching prices,' insists Mr Cash, 'so the pressures on other market players haven't changed. Sites will close and will continue to close but we're not doing anything radically new as a market phenomenon. It is not part of our plan in any way, shape or form to push people out of the market.'

But what is very much part of Esso's plans is the continuation of Pricewatch. 'It has been a very successful strategy for us,' Mr Cash told *Petroleum Review*, 'so until our customers tell us differently we have no plans to change either Pricewatch or the way it is implemented.' So could Pricewatch be around indefinitely? 'Yes, in some form or other, it certainly will!'

Petroliana – not a load of old rubbish!

By Ian Byrne

Collecting 'petroliana' has been described as America's fastest growing hobby. But what exactly is petroliana and why has it recently become so popular?

A pre-1930 can from the collection of Paul Wilcox

Reproduction globes and signs for sale

Essentially petroliana can be defined as any item produced by or for the oil industry. However most collectors concentrate on the downstream industry – partly on grounds of availability and storage space. They also tend to prefer items bearing company logos. Within that broad definition there are many sub-areas avidly collected by enthusiasts but they can generally be split into six broad categories.

Signs

Any sign is potentially collectable but enamelled signs (known as porcelain in the United States) are most popular. More recent plastic signs tend to be ignored but may come into favour in the future. Large identification signs that were once a common feature of America's highways fetch the highest prices, especially those produced before World War II. Smaller signs for affixing to walls are also popular and there is great demand for the small plates that screwed onto petrol pumps identifying the grade as well as the brand. A few collectors specialise in other signs such as those pointing customers into a service station and there is even one eccentric who only collects rest-room signs: the Ladies and Gentlemen from the rooms at the rear.

Pumps

It may seem hard to believe but a growing number of Americans feel that their yard just would not be complete without a row of gas pumps. These are usually found rusting beside remote byways, bypassed by the newer interstate highways, and then lovingly restored. This is one collectable item where it is allowed to use some non-original parts if for no other reason that all hoses perish eventually. No pump is complete without an illuminated globe and these form possibly the most popular collectable items of all.

Globes

Until the 1950s almost all service stations had brightly painted globes shining out to attract passing motorists. As cars began to be driven faster, the globe was no longer able to act as the primary beacon and internally illuminated pole signs took over. Possibly it is their almost complete disappearance that makes them such evocative (and hence desirable) items to collectors. In fact only one small Georgia and Florida-based company using the Dixie brand has kept its globes into the 1990s.

An old pump now sited outside a pub in Ireland

In Britain globes survived much later and can still occasionally be seen on small rural outlets. It is therefore possible that they will not become really collectable for another 20 or so years. As well as the brand name, price is determined by the construction (one piece or three) and the pictorial quality of the design. Indeed the value of the rarer signs and globes has risen so much that a few counterfeits are beginning to appear on the US market as well as increasing numbers of legitimate reproductions. (Readers may have noticed that a leading pizza and salad bar chain has a number of restaurants with petrol pump globes on display; these are US reproductions.)

Oil bottles and cans

The next major category collected includes early embossed oil bottles and the US quart cans that were widely sold until the mid-1980s. Again demand appears to be higher for the better pictorial designs and many collectors specialise in regional brands close to their home town.

Maps and paper items

Immediately before the first oil crisis, American service stations were giving away free an estimated 250 million road maps annually. Although later designs tend to be fairly simple designs with colourful but uniform maps inside, the covers of earlier issues, especially from the 1930s and 1950s, often represent commercial art at its best. Moreover prices still tend to be low since large numbers were produced.

Other paper items include company brochures, calendars and magazines, car service records and postcards. Demand varies with the interest of the item and its graphic quality.

Miscellaneous items

A whole range of smaller items are also widely collected. The most popular at the moment appears to be salt and pepper sets in the shape of gas pumps given to dealers as promotional gifts by oil companies, while badges from service station uniforms are always in demand. Pens, pencils and even frisbees are collected, and large numbers buy toy road tankers that double as piggy banks. The East Coast brand Hess produces a different design each Christmas and these are always snapped up quickly.

Who collects petroliana?

It is probably fair to say that the average collector is a middle-aged white American male without a college education who has spent some time working in his youth at a service station and sees it as being part of a golden era when petrol was cheap. However this caricature is only partly true: maps tend to be collected by articulate graduates and there is a sprinkling of academic historians in all fields.

There are some female collectors – but they are very much a minority – and outside North America very few big collectors. A few exist in Europe (mainly the United Kingdom, Germany and Italy) with proportionately more in Australasia. But as all the collectors' organisations are based in the United States or Canada it is often easier to find information about (or to purchase) American items than more local ones.

Sources of petroliana

A popular source for collectable items in the United States is now through garage and yard sales – the equivalent of car boot sales on this side of the Atlantic. From there items pass into roadside flea markets or antiques shops. However, the most popular way of ensuring items end

The petrol can collection of Paul Wilcox. Over 160 examples of 85 different types, carefully cleaned, restored and repainted, are displayed in his garage in Chester

Items for sale at a convention of the International Petroliana Collectors Association

up where they are wanted is through the 'Gas Bash', a special collectors' gathering. Except in winter there is a steady flow of gas bashes throughout the year and across the United States. They took off about 10 years ago in Iowa and Columbus, Ohio. Nowadays the largest will have up to 300 paid-for pitches at which a mix of commercial dealers and collectors sell the full range of petroliana. However each major gas bash runs for a couple of days and smaller items such as maps or badges are briskly traded on a room-to-room basis in a local hotel. General autojumbles also often have a special area set aside for petroliana.

Clubs and magazines

With this rapid growth of interest, a number of clubs and magazines have been established. The largest is probably the Ohio-based International Petroliana Collectors Association, which distributes a bi-monthly colour magazine called *Check The Oil!* to its 4,000 members. This is run as a commercial operation by a father and son team who actually own the name petroliana, although it is commonly used without their permission. There is a *Petroleum Collectables Monthly* and a magazine evocatively named *Tiger Hightest* as well as the newsletter of the much smaller Canadian Service Station Memorabilia Association. Map collectors can also join the Road Map Collectors of America. As with most esoteric subjects, there is a growing use of the Internet to arrange deals and exchange information.

But in the United Kingdom ...

Interest in the United Kingdom is still limited, although a few petroliana items are beginning to turn up at auto jumble sales. There is a specialist dealer in petrol pumps and older petrol globes are becoming more in demand – often by themed restaurants. Many second-hand bookshops sell a few maps but out-of-date Ordnance Survey or Bartholemew maps are preferred to oil company versions.

There is a dearth of published information. As a map collector myself, I do not know if several substantial oil companies issued maps in the United Kingdom, though I could list over 200 US issuers (and there are probably another 500).

The United Kingdom also has a strong tradition of preserving items of social history in museums but even then there are relatively few with significant relics of the UK oil industry. Apart from the Beaulieu Motor Museum, the best public collection is probably at the Lakeland Motor Museum which is home to the Esso Petroleum Collection. In the meantime, much potentially interesting material is probably being destroyed or left to rot.

At the International Petroliana Collectors Association convention in Columbus, Ohio in June 1996

Vocational qualification for forecourt staff

The work to produce job competency standards for forecourt staff began five years ago with HS(G)41. With the guidance note was an appendix giving a suggested training programme covering key safety and legislation aspects. Its purpose was to ensure all concerned were fully aware of, and trained in, their responsibilities in all the legislative and safety aspects of their jobs.

Petroleum Employers' Skills Council (PESC), the downstream oil industry job competence and training standard organisation, was asked to put together a competency standard to cover the work reflected in the HS(G)41 training programme.

A group of interested individuals came together and after two years' work, three basic technical National/Scottish Vocational Qualifications (N/SVQ) units were produced and given to the National Retail Training Council which had undertaken to review all other non-technical aspects of forecourt operations.

Unfortunately, these three units proved inadequate to cover the requirements of the job and further work was needed by the group. This was completed, providing three further units. These, together with other relevant units, were thoroughly field-trialled last summer and are currently with the English and Scottish national job competency standards' accreditation bodies – the National Council for Vocational Qualifications (NCVQ) and the Scottish Vocational Education Council (SCOTVEC).

The standards are composed of nine units. To obtain a full N/SVQ qualification, the candidate must be successfully assessed against six units as follows:

Compulsory units – Candidates must undertake all five
Unit 1: Contribute to health and safety within the fuel dispensing area
Unit 2: Receive deliveries of motor fuel
Unit 3: Develop and maintain positive working relationships with customers
Unit 4: Contribute to the security of the workplace
Unit 5: Process payments for purchases.

Optional units – Candidates must choose one
Unit 6: Dispense fuel to customer requirements
Unit 7: Control fuel dispensing and authorisation equipment.

Additional units – optional and not required to obtain the qualification
Unit 8: Maintain operational effectiveness of forecourt equipment
Unit 9: Prepare to receive and confirm driver-controlled deliveries of motor fuel.

Whilst not necessary for the qualification, the last unit is strongly recommended for anyone who has this duty.

Accreditation is expected shortly and the qualification will then be available as an N/SVQ. The standard is at NCVQ/SCOTVEC level 2 in the five-level framework. It is expected to be available for use in April.

Currently, work is going ahead to put together all the structure and systems needed to operate the standard. The intention is to have assessment and training available right across the country as soon as possible. To this end, a meeting of training providers in this field is being set up for early April to discuss the best way to ensure training and assessment is in place.

Please contact PESC if you are interested in this event or let your training organisation know so they can do so.

Further advice on the new N/SVQ for both employers and employees will soon be available from PESC, City and Guilds, SCOTVEC, PRA, local Training and Enterprise Councils or, in Scotland, Local Enterprise Councils.

John Fuller
Director, PESC

Letter to the Editor

Madam,

Greenpeace misinformation

With reference to the report concerning the narrowing of the choices for the final disposal of the Brent Spar, which appeared in the February 1997 issue of *Petroleum Review*, page 56, I would like to comment on the 'public outcry' which was stated to be the reason for the initial chosen option of **deepsea** (ie in 2,300-plus metre water depth in the northeast Atlantic, west of the Shetlands) disposal being put aside in 1995.

It is my opinion that this outcry was mainly created by Greenpeace's highly emotional, dogmatic and frequently factually inaccurate campaign, which they conducted with great publicity skills by means of all current modes of fast communication, namely television (both terrestrial and satellite), radio, telephone, fax and the Internet. The only trouble was that what they put out was not by any means 'The truth, the whole truth, and nothing but the truth'.

As examples of this Greenpeace misinformation I would like to cite the following:

- The 'Diary' entry on the Internet, dated 29/4/95, issued by Desley Mather, Greenpeace Press Officer, the headline of which read: 'Moby Dick sets sail to protest plan to dump oil platform, toxic waste and all, into the North Sea'.
- The 'Diary' entry for 23/5/95 (when the activists were evicted after their first occupation of the Brent Spar) on the Internet, including in its final paragraph: '...all our efforts will be concentrated on stopping the dumping of the Brent Spar into the North Sea in the lead up to the North Sea Conference on 8-9 June.'
- The appeals for support and funds which Greenpeace Ltd published in *The Guardian* and *The Independent* on 8/6/95 (ie only three days before Shell started to tow the Brent Spar **out** of the North Sea) which stated: 'Mr Gummer is letting Shell dump 14,500 tonnes of toxic litter in the North Sea. Help us to stop it happening. You can be sure of Greenpeace.'

Personally, I'm not at all sure of them after that little lot, and there are several other such examples too that I could quote if necessary. What I cannot understand, however, is how Greenpeace has been allowed to get away with such blatant 'economy with the truth'. Can anyone enlighten me on that point please?

R K Smith
F Inst Pet

Technical Report

REFINING AND MARKETING

PESC is currently considering a formal proposal from the Institute for the introduction of NVQs for electrical contractor workforces specific to the petroleum industry. The intention would be to extend the system to designers' and owners' specialist staff.

The contractor appointed to develop a method to replace the calculation procedure in the current Area Classification Code has submitted a report following review by a cross-industry working group. This is being subjected to wider review and will eventually be used as the basis for amending the Code. The report indicates that the separation distances used for standard facilities in normal operating conditions are adequate.

The Institute is heavily involved in the restructuring of HSE HS(G)41 guidance for service stations. A Publications Sub-Group chaired by IP is overseeing the preparation of the guidance documents.

A new proposal for work control procedures to be used at service stations has been developed based on a system successfully implemented by a member company. It is considered that it meets the requirements of new guidelines issued by HSE for the oil industry. Agreement of the detail will enable completion of the Contractors Work Procedures at Service Stations.

Draft CEN standards have been completed for review on tank gauging and leak detection systems at service stations. The Institute has been represented in these developments.

The Institute is collaborating with the Environment Agency on the production of guidance to the agency's field inspectors on the construction and operation of bulk petroleum storage and distribution facilities. This is designed to address concern that parts of the CIRIA Report No 493 are not applicable to major dedicated petroleum operations. A detailed review has been carried out on the proposals from DoE for pollution control regulations issued last December. Representation will be made as part of an industry group.

Consideration is being given to establishing an industry standard for petroleum road tankers. This will identify features thought desirable but not covered by the Approved Vehicle Requirements under the Carriage of Dangerous Goods Regulations.

A presentation of the IP report 'Access to the Top of Road Tankers' was made to HSE, who were broadly supportive of the approach adopted. It is planned to develop the report into an IP technical publication this year.

HEALTH

Comments have been made on the recently published EPAQ report on the health effects of nitrogen dioxide.

Comments have also been made on the Department of Health and Environment consultative document on the Health of the Nation Strategy.

The contract for a further year's maintenance of the epidemiology study database has been placed with Nottingham University and investigations are underway to determine the best system to provide security for hard copy documents on which the database is based.

It is intended to publish a summary of the discussions at the October 1996 Environmental Epidemiology workshop.

TEST METHOD STANDARDISATION

A successful workshop on Automotive Particulate Emission Analysis was held. The two main topics were Poly Aromatic Hydrocarbons (PAH), Sampling, and Analysis and Particle Size and Morphology. The multinational make-up of the participants showed the interest in these subjects throughout Europe.

PETROLEUM MEASUREMENT

A meeting was held with API to discuss a joint programme of petroleum measurement work. One of the major projects is a new edition of the *Petroleum Measurement Tables*, possibly to be issued in CD-ROM format.

The second edition of *Petroleum Measurement Manual, Continuous Density Measurement*, will be published soon.

The draft document Guidance for the Calibration of Additive Injection Systems on Road-Loading Gantries is being prepared for publication.

The new draft document, Temperature Corrections in Tank Calibration and Gauging, is being reviewed by IP and API prior to further expansion of its scope.

UPSTREAM

Work has continued on developing a project management proposal which will accelerate international standards development. A meeting of the Process Mapping Task Group was attended at the API offices. A Draft Strategic Policy Statement will be discussed at the next meeting.

A conference was held at the Institute entitled 'Good Standards Add Value'. The aim was to communicate with industry and attract further participation of experts to work on writing standards. This was followed by a Training Workshop given by Ms Nancy Raca, the ISO/TC 67 Secretary from API.

Nine companies have signed the Joint Industry Participation Agreement to contribute to the experiment on a full-scale shell and tube heat exchanger. It is hoped that the remaining details on the contract to carry out the work can be resolved shortly with the Health & Safety Laboratory. The HSE and EPSRC are also contributing to its funding.

MICROBIOLOGY

Work continues on the development of the Guidelines for the Microbial Evaluation of Metalworking Fluids. The next meeting will discuss a proposal for a conference on metalworking fluids to be organised jointly by the Metalworking Test Methods Panel and the Microbiology Committee.

ENVIRONMENT

The Institute has agreed to examine the possibility of hydrocarbon vapours entering buildings from contaminated land and to fund the necessary research.

Work continues on the guidelines and codes being developed within the various working groups. However the continuing reduction in the availability of expert company manpower has meant that projects have become increasingly difficult to complete.

GENERAL

Preliminary discussions have taken place on the scoping of an IP database to collate oil spill and other incidents at service stations.

A significant part of the workload in January has been the development of the technical activity annual report together with requests for other special reports on technical work.

John Hayes,
Technical Director

The COMAH Directive and its implications for UK industry

The directive on the control of major accident hazards posed by industry (COMAH) was adopted by the Council of the European Union on 9 December 1996 and entered into force on 3 February 1997. The new document effectively revises and updates the 'Seveso Directive' (82/501/EEC), providing more flexible and more consistently applied controls to ensure protection of the public and the environment. Its adoption will have significant impact on the chemicals, petrochemicals and associated industries across Europe.

By P N Wood, Safety and Reliability Engineer, Snamprogetti Ltd

The 1982 'Seveso Directive' represented the first attempt to legislate throughout the European Community on the control of industrial accidents. The directive was implemented in the United Kingdom by the Control of Industrial Major Accident Hazards Regulations 1984 (CIMAH). The regulations require the person in control of an industrial activity to demonstrate at any time that the major accident hazards have been identified and that the activity is being operated safely. More stringent 'top tier' requirements apply to the potentially more hazardous activities. They include the submission of a written safety report to the Health and Safety Executive (HSE), the preparation of an on-site emergency plan and the provision of certain information to the public.

Amendments to the Seveso Directive have reflected the response to the Bhopal disaster in 1984 and the pollution of the Rhine river in Switzerland in 1987. However, the need for a more significant overhaul was recognised to address certain deficiencies of the existing legislation. The framework nature of the Seveso Directive had resulted in unacceptable differences between member states in the level of protection for people and the environment against major hazards. The areas where this was most evident concerned the contents of safety reports, the inspection regimes established to regulate major hazard sites and the preparation of emergency plans.

Application

The general structure and duties of the new COMAH Directive follow the two-tier format of its predecessor. The framework of identification, prevention and control, and mitigation which underlies the Seveso Directive remains equally visible in COMAH.

The new directive will make its provisions applicable to all establishments where dangerous substances are present in sufficiently large quantities to create a major accident hazard. This differs from the current directive, which applies to installations, of which there may be several on a single site. For many sites the installation and establishment will be the same entity but for refineries and integrated chemical complexes there may be several installations in a single establishment. Also, the distinction between material in process and that held in storage will no longer apply.

As in the Seveso Directive, COMAH lists some dangerous substances by name and gives individual threshold limits but most substances are identified through the use of generic categories such as 'flammable', 'explosive' and 'hazardous to the environment'. The categories are defined in existing directives dealing with the packaging and labelling of chemicals for trade. Cumulative quantities of dangerous substances falling within compatible categories will trigger application. Changes in the thresholds for certain substances mean that a number of non-CIMAH sites in the United Kingdom will find themselves needing to comply with COMAH. Balancing this out, some sites will fall out of the regime where thresholds have been raised.

Safety management

A secondary objective of revising the directive is to introduce some new provisions reflecting current good practice in risk management. Analysis of the major accidents reported in the Community has indicated that most are the result of managerial and/or organisational shortcomings. In recognition of this, the COMAH Directive includes improved consideration of management systems and human factors.

The main changes relate to the new concept of an internal Major Accident Prevention Policy (MAPP), a requirement for all establishments covered by COMAH. The MAPP must set out in writing an operator's overall aims and principles for the control of the major accident hazards in the establishment and, in particular, the safety management system which the operator will adopt to control the hazards. This is not a new requirement for top-tier sites, where it will have little impact, but the cost of developing a safety management system and preparing the MAPP could be quite prohibitive for smaller companies operating lower-tier sites.

'Analysis of the major accidents reported in the Community has indicated that most are the result of managerial and/or organisational shortcomings'

Safety reports

A key requirement of the revision, as in the existing directive and applying to the potentially more hazardous establishments, lies in the production of a safety report and its submission to the Competent Authorities (the HSE in the United Kingdom). The new text has a fundamental implication as it introduces an element of permissioning, most clearly for new sites which can only be constructed or start operation if the Competent Authority has assessed the report and communicated its conclusions. The same overall requirement is in place for existing sites, which must submit updated reports within two years of the UK implementation date (three years for existing sites not previously covered by CIMAH).

In making the assessment, the Competent Authority must apply a specific and rigorous test to determine whether or not the operator is in compliance. The directive requires the Competent Authority to prohibit the use, or bringing into use, of an establishment where the measures taken by the operator for the prevention and mitigation of major accidents are seriously deficient.

Safety reports must be periodically reviewed and where necessary updated. This should occur at least every five years, or at any other time at the initiative of the operator or the request of the Competent Authority, where justified by new facts or to take account of new technical knowledge about safety matters, or to take account of information arising from the analysis of near misses.

The COMAH Directive does not spell out the mechanism for implementation of safety reports but clearly the requirement goes beyond the current CIMAH regime in the United Kingdom. Accordingly, the HSE implementation strategy for the new safety report requirements will be an issue of principal importance for UK industry.

Domino effects

A new requirement placing duties on both the Competent Authority and the operator is the consideration of potential domino effects. The initial duty is on the Competent Authority to identify groups of establishments where a major accident in one could lead to knock-on effects in others, thereby increasing the risks. When such establishments have been identified, operators will have to exchange sufficient information for these increased risks to be taken into account in their MAPPs (and safety reports), their emergency plans and in their provision of information to the public.

Emergency plans

The objectives of emergency plans have been explicitly set out in a specific article, whilst the basic contents of the two types of emergency plan (on-site and off-site) are specified in a new annex. A new requirement is set for both plans to be reviewed and tested at least every three years. Inevitably, testing an emergency plan, involving the emergency services, costs money. In the United Kingdom, it is government policy that the costs arising from the control of risks should lie with those who produce the risk but in this instance a balance must be struck between what can be seen as part of the normal training of the emergency services and the additional work arising from the requirement to test the plan. There is concern that this will impose a considerable burden on industry.

Information to the public

A fundamental tenet of the Community's environmental policy is the provision of information to the public to enable them to both understand and, if necessary, influence the action and performance of companies. The existing Seveso Directive does not actively contribute to this. The gap is addressed in COMAH by requiring the Safety Report to be made available to the public. The new directive allows the withholding of information for reasons of industrial, commercial or personal confidentiality, public security or national defence.

There are also new rights for the public to participate in relevant procedures and debate on siting and land-use, the off-site emergency plan and the control policies produced by the authorities. Again, the need to keep certain information confidential is recognised.

Inspections

Because of past differences in the arrangements for the inspection of establishments by the Competent Authorities giving rise to differing levels of protection, COMAH lays down at Community level the essential requirements with which the systems for inspection established by the member states must comply.

The new directive introduces clear responsibilities and duties for the inspection system created by the Competent Authority, backed by new duties and powers to prohibit establishments if necessary. Minimum standards are now set for the inspection system and inspection of top-tier sites must be performed at intervals no longer than 12 months. All establishments must be inspected, while all inspections will result in a report by the Competent Authority which will be followed up with the operator where necessary.

Enforcement

In the United Kingdom, enforcement of the new regulations will be through a process of partnership between the HSE and the Environment Agency. The HSE will continue to act as the primary focus for enforcement action and managing the assessment of safety reports.

As part of a wider reorganisation, the HSE is in the process of restructuring its inspection and enforcement arrangements for hazardous installations and the chemical industry more generally. A new division, the Chemicals and Hazardous Installations Division (CHID), has been set up with its headquarters in Bootle and with regionally based inspection teams. It will be part of a larger grouping of operational divisions with enforcement responsibility for permissioning regimes.

Implementation

Implementation of the COMAH Directive into national legislation must be achieved within two years of the date of its entry into force. In the United Kingdom, the HSE is currently preparing a consultative document containing draft regulations and guidance notes. This is expected to take approximately 12 months, after which there will be a three-month consultation period receiving input from all interested parties.

For existing sites already subject to CIMAH, compliance with the full terms of the new regulations will be required not later than two years after implementation into national law. Existing sites newly brought within scope have three years in which to comply.

The implementation of the new COMAH Directive poses challenges to industry and to the authorities and, whilst it is for central government to develop the legislation for implementation, the process will be most effectively carried out if all parties work together, with consultation at all stages.

Council Directive 96/82/EC on the control of major-accident hazards involving dangerous substances, was issued in the *Official Journal of the European Communities* No. L10, 14.01.97, pp13-33.

Technology News

New electronic sealed parcel delivery system for petroleum tankers

Traditionally, a tanker driver has had to climb on top of the vehicle and use a long dipstick to show the customer how much is loaded in each compartment – a dangerous practice that current UK Health and Safety Executive regulations are working towards eliminating.

As a result, Encrypta Electronics has developed a system securing tankers for sealed parcel delivery as an alternative to metering flow or fitting collapsible guard rails which have proved costly solutions to meeting legislative requirements.

The system, currently on trial with BP (see photo), is based on the company's intrinsically safe, reusable Crypta Ex Zone Zero seals which are certified for use in potentially explosive atmospheres.

A seal is permanently fitted to a tanker and a sensor connected to the pneumatic control lines of the load lock bar. The sensor detects air pressure changes in these lines caused when the load lock bar is secured or released for delivery. These events are stored in the system's memory, along with the date and time of delivery.

The system can also detect if any of the access hatches to the compartments are opened to prevent anyone from diluting or contaminating the contents.

Such a secure sealed parcel delivery system allows the driver to single-handedly deliver a pre-measured quantity of fuel at an unattended petrol station. The system provides an automatic, tamper-proof, full audit trail of all activities concerning the loading and unloading of each tanker that can be verified after each delivery run by downloading details from the unit's memory using an infrared link to a handheld 'Touch PC'.

Disappearing plug cuts time and costs

A new well plug has been introduced by Halliburton that enables operators to save the time and costs of using slickline procedures to run, set and retrieve tubing plugs by disappearing once the job is complete.

The Mirage™ Disappearing Plug is particularly suited to use in horizontal and offshore wells where conventional plug-setting can be costly. It also reduces the risk and costs of a misrun or a stuck plug.

The plug runs on the tubing string, closes for pressure tests and for setting the production packer, then disappears. In addition, no locating nipple is used, so full tubing drift diameter is maintained, making it easier to run full-bore tools and providing for more effective well stimulation.

Sealed paving solution for forecourts

Petrapave, manufactured by Marshalls, is a high density concrete block paving which works in conjunction with an elastic polysulfide joint sealant to prevent petrol, oil and other liquid contaminants penetrating below the pavement surface and the subsequent contamination of the subsoil.

The 100mm-thick, six-sided, elongated hexagonal blocks incorporate spacer nibs for accurate laying and a shoulder detail to accommodate the chemically resistant, two-part polysulfide sealant compound.

The paving system can withstand extreme climate conditions and has good load bearing capabilities. It can accommodate minor deflections in the pavement without losing integrity of the sealed joint and is available in nine different colours to suit a variety of applications.

Petrapave

UK certificate of exemption first

Tunbridge Wells-based process control engineering company Jiskoot Autocontrol was recently granted the United Kingdom's first certificate of exemption under the Health & Safety at Works Act 1974 for its sample receiver cans.

Designed for the collection of stabilised crude oil and other associated products, the receivers conform to the requirements of the Pressure Systems and Transportable Gas Containers Regulations 1989 and have been issued with certificates No 1 & 2 – 1996.

Sample receiver cans

The cans are manufactured from grade 304 stainless steel and are pressure rated to 7 bar or higher – the normal working pressure is 2 bar.

Service station pump management

Wayne Dresser is to launch a new KCU45S pump control system which provides an at-a-glance picture of forecourt activity.

Year 2000 compatible and interfacing with all main suppliers of point of sale (POS) and wet stock management systems, the KCU45S has a user friendly keyboard layout that maximises operator speed. A choice of monitors is also available.

The system can handle up to 32 pumps and 10 grades of fuel. Programmable to suit individual site needs, it can provide a range of printed reports and a full wet stock inventory. It can collect and secure shift totals, record measure checks and return fuel to tanks and has visible/audible indicators identifying individual pump conditions.

The new system is suitable for use on unattended, self serve or split island service station forecourts.

Technology News

New diesel engine technology lowers exhaust emissions

Navistar International Corporation and Rhône Poulenc have developed a new truck diesel engine technology that exceeds stringent US government-proposed emissions standards for the year 2004 using current grade US diesel fuel.

The standards were set out last year in a statement of principles signed by the US Environmental Protection Agency, the California Air Resources Board and heavy-duty diesel engine manufacturers.

The EOLYS™ technology involves the use of a cerium-based fuel additive which, when added to diesel fuel in trace quantities, promotes the combustion of particulates collected by a passive, self-regenerating trap. The cerium-based catalyst also significantly reduces the temperature of particulate combustion, making possible a continuous regeneration of the collected soot on the trap – a feature which extends the life of the unit.

The additive can be premixed in the fuel or added into the vehicle tank via an automatic onboard dosing system. Engine performance and durability are not affected in the process.

Independent tests on the EOLYS™ fuel-borne catalyst technology (applied to an International® T 44E engine featuring Navistar electronic engine controls and an electro-hydraulic fuel injection system equipped with exhaust gas recirculation) resulted in nitrogen oxide (NOx) and particulate emissions of approximately 2.0 g/bhp-hr and 0.01 g/bhp-hr, respectively. These levels are well ahead of the target set in the proposed 2004 standard which states that diesel engine emissions must be effectively limited to a maximum of 2.5 g/bhp-hr NOx and non-methane hydrocarbons and 0.1 g/bhp-hr particulates.

Fuel management

The Auditta Plus complete fuel management system available from JMW Systems in Loanhead, Midlothian, Scotland, offers both stand alone and computer operation. It can be single or multi-site and can operate up to eight pumps or a mixture of pumps and remote readers. The system also controls other facilities such as barriers, wash systems and weigh bridges.

Meanwhile the Auditta integrated fuel pump/management system is a combined diesel pump and fuel management system. It is driver operated and provides printouts of all fuel usage. The volume of fuel taken is retained in the system's memory for auditing purposes.

Fuel management system

New bioremediation service unveiled

Response Environmental Services has launched a new effluent treatment service for the processing of trade effluent and other liquid waste.

At the core of the Bioflow Effluent Treatment System (BETS) is Novacell™, an in-situ automatic dosing system which carefully breeds and releases into the effluent stream microbes that are preconditioned according to the nature of the waste, to continually treat the contamination efficiently and effectively.

Once operating at an 'optimum equilibrium' – normally three to six weeks after installation – effluent quality will improve by at least 30 percent within the first six months of installation, states the manufacturer.

The system can be used in both continuous flow and closed-loop applications either as an exclusive treatment system or in addition to existing aeration, filtration, activated sludge and other treatment systems.

Fibre optic well monitoring system

Wood Group Production Technology (WGPT), part of the Drilling & Production Services division of Wood Group, can now offer a full range of well monitoring products following the signing of a five-year worldwide distribution agreement with Optoplan of Norway for its FOWM fibre optic well monitoring system designed for use in high pressure/high temperature wells. The system was co-developed by Optoplan and Alcatel, with support from Norske Shell.

The FOWM permanent monitoring system is designed to operate in temperatures up to 200°C and 15,000 psi, conditions which traditional electronic technology is unable to withstand. Further developments are in hand to extend the working envelope of the system and include the latest expected operating environments.

The use of fibre optic technology also provides greater system reliability without compromising accuracy or adaptability, states WGPT.

WGPT recently signed a contract with Shell UK Exploration and Production to supply four FOWM systems for the ETAP development scheduled for completion during the second quarter of this year.

Power backup

The Best Patriot 0280 uninterruptible power supply (UPS) from ICL Edacom provides up to 30 minutes standby electricity in the event of a power failure giving ample time to clear transactions and to take shift and daily reports from an Edacom 10 or Edacom 90/10 point of sale (POS) terminal before closing

An alternative model, the Best Patriot 0420, includes a communications port and software that enables the PC to be shut down in a controlled manner in the event of a prolonged power failure.

The units take just six hours to become fully recharged.

Audible and visual alarms give warning of any drop in the unit's power supply when in operation.

Uninterruptible power supplies

Volumetric flow

Micro Motion, part of the Fisher-Rosemount group, reports that its Basis Coriolis flow meters return a volumetric accuracy of ±0.25 percent, a figure comparable with medium to high specification PD or mechanical displacement meters.

The company is to target the volumetric flow market with the Basis range. Traditionally, Coriolis flow meters have been used primarily for mass measurements.

Flow meter

Technology News

New conveyor car wash system introduced to UK service station forecourts

Ryko International has launched its unattended Velvet Touch 2000 conveyor car wash system on the UK market.

The car wash includes a remote diagnostics system as standard which not only increases wash management efficiencies but also reduces machine downtime. A 'Fault Finder' unit lets the operator know exactly what is happening in the car wash bay without requiring him/her to leave the service point. It also enables the monitoring of chemical levels as well as factors such as temperature.

The system also identifies what is wrong with the machine and the exact spares and tools that are required to correct the fault. This data is transmitted directly to a service centre via a modem link.

The car wash has a maximum throughput of 65 cars per hour. It can be installed for coin box, token, card or digital operation and can also be operated by an attendant if required.

A variable frequency drive and building block programme allowing the operator to vary the menu or wash cycle time are offered as standard.

To avoid wastage of chemicals and power, a loop detection system is included which is able to self activate and deactivate the wash processes as the conveyor pulls the vehicle through the system.

A range of optional extras are also available, including a high pressure wheel blaster and cover cleaner, water reclamation system to reduce water consumption and cost, and stand-alone stainless steel or aluminium vacuum cleaner stations that can be supplied with onboard compressors for fast, convenient tyre filling.

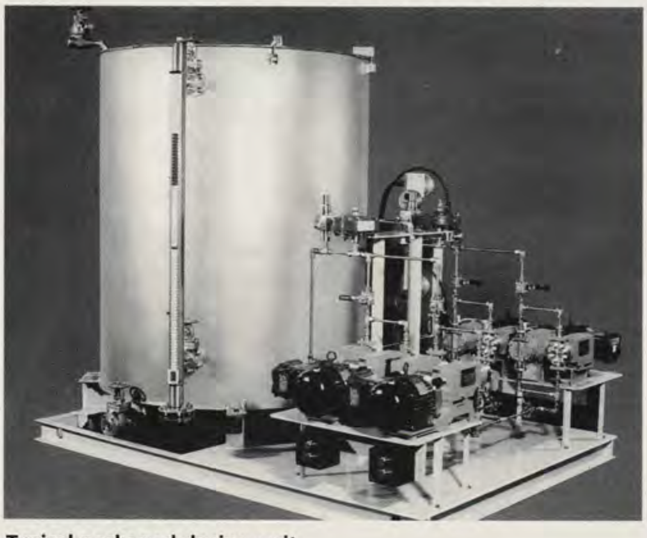
Extended range of packaged pump units

The range of packaged dosing and metering pumping systems produced by the process division of George Meller has been extended further with the introduction of the Pulsar Series of hydraulically balanced diaphragm metering pumps.

The small footprint systems are supplied as self contained, pre-tested modules complete with interconnecting pipework and valves, controls and instrumentation with only pipe and electrical connections to be carried out on site.

Standard units can be readily adapted to leak proof systems for handling hazardous, toxic, explosive and other environmentally sensitive media with the addition of a double diaphragm leak detection system ensuring that pumped media is contained and isolated in the event of a diaphragm failure.

Most packages are custom built to meet individual requirements. Up to four multi-pump systems can be accommodated within a basic standard design.



Typical packaged dosing unit

Biocide-free fouling control system

A silicone-based, biocide-free fouling control system for use on subsea structures, offshore platforms and power station inlets has been developed by International Protective Coatings.

The three-step Intersleek coating system creates an inert, hydrophobic surface which, unlike other fouling control systems, will not deplete and so does not need replenishing, states the manufacturer.

Intersleek-coated buoy

Contacts

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Marshalls	01422 306000
Jiskoot Autocontrol	01892 518000
Wayne Dresser	01875 402190
Rhône Poulenc	+33 1 47 68 09 79
Navistar	+1 708 865 3484
JMW Systems	0131 440 3633
Response Environmental Services	01709 816104
John Wood Group	01224 851230
ICL Edacom	01279 647000
Fisher-Rosemount	01243 863121
Ryko International	01403 240364
George Meller	0181 579 2111
International Protective Coatings	0171 612 1410

Forthcoming Events

March

10th-13th
Amsterdam: 'Corrosion in the Oil & Gas Industry'.
Details: Mr Colin Britton
Tel/Fax: 01635 202329

10th-13th
Perth: 'Petroleum Australia '97'.
Details: The OCS Technology Group, 34-36 Apsley End Road, Shillington, Hitchin, Herts SG5 3LX.
Tel: 01462 712049
Fax: 01462 711889

10th-14th
Perth: 'Trade Mission'
Details: Northern Development Company, 20 Manor Way, Belasis Hall Tech Park, Billingham, Cleveland TS23 4HN.
Tel: 01642 330100
Fax: 01642 330101

12th-14th
Perth: 'Petroleum Mining Australia'.
Details: Northern Development Company, 20 Manor Way, Belasis Hall Tech Park, Billingham, Cleveland TS23 4HN.
Tel: 01642 330100
Fax: 01642 330101

12th-13th
Turkmenistan: '2nd Turkmenistan International Oil & Gas Exhibition'.
Details: International Trade & Exhibitions Group Conference Division, Byron House, 112A Shirland Road, London W9 2EQ.
Tel: 0171 286 9720
Fax: 0171 286 0177

13th-14th
London: 'International Upstream Energy Risk and Insurance'.
Details: Langham Oil Conferences Ltd, 37 Main Street, Queniborough, Leicester LE7 3DB.
Tel: 01509 881022
Fax: 01509 881576

13th-14th
London: 'Trade and Investment Opportunities in the Russian Oil Industry'.
Details: The Conference Unit, The Royal Institute of International Affairs, Chatham House, 10 St James's Square, London SW1Y 4LE.
Tel: 0171 957 5700
Fax: 0171 321 2045

15th-18th
Bahrain: '10th Middle East Oil Show & Conference'.
Details: Overseas Exhibition Services, 11 Manchester Square, London W1M 5AB.
Tel: 0171 486 1951
Fax: 0171 486 8773

17th
Aberdeen: 'IIR Oil & Gas Series 1997 – Building Collaborative Long-term Supplier Relationships Through Strategic Precurement in the Offshore Industry'.
Details: IIR Ltd, 6th Floor, 29 Bressenden Place, London SW1E 5DR.
Tel: 0171 915 5055
Fax: 0171 915 5056

18th-19th
London: 'Oil & Gas Project Finance – 4th Annual Conference'.
Details: IBC UK Conferences, 57-61 Mortimer Street, London W1N 8JX.
Tel: 0171 453 2041
Fax: 0171 323 4298

19th
London: 'The Chinese Oil Market'.
Details: The British Institute of Energy Economics, 37 Woodville Gardens, Ealing, London W5 2LL.
Tel: 0181 997 3707
Fax: 0181 566 7674

19th
London: 'International Marine Salvage Conference'.
Details: International Salvage Union, Docklands Business Centre, 14 Tiller Road, London E14 8PX.
Tel: 0171 345 5122
Fax: 0171 345 5722

19th-20th
London: 'Petroleum Trading and International Law'.
Details: Abacus International, 214 Inchbonnie Road, South Woodham Ferrers, Essex CM3 5WU.
Tel: 01245 328340
Fax: 01245 323429

20th-21st
Brussels: 'International Economic Outlook Conference'.
Details: DRI/McGraw-Hill, Wimbledon Bridge House, 1 Hartfield Road, London, SW19 3RU.
Tel: 0181 543 1234
Fax: 0181 545 6248

20th-21st
Aberdeen: 'PSTI/MTD Technical Forum '97 – Emerging Technology for E&P'.
Details: The Petroleum Science and Technology Institute, Offshore Technology Park, Exploration Drive, Aberdeen AB23 8GX.
Tel: 01224 706600
Fax: 01224 706601

20th-21st
Istanbul: 'Privatisation & Project Finance in Turkey'.
Details: IBC Financial Focus, 57-61 Mortimer Street, London W1N 8JX.
Tel: 0171 637 4383
Fax: 0171 323 4298

21st-24th
Surrey: 'Understanding the Commercial, Economic & Trading Aspects of Oil Refining'.
Details: Petroleum Economist, PO Box 105, Baird House, 15/17 St Cross Street, London EC1N 8UN.
Tel: 0171 831 5588
Fax: 0171 831 5313

April

7th-10th
Moscow: '4th Moscow International Oil & Gas Exhibition'.
Details: International Trade & Exhibitions (JV) Ltd, Byron House, 112A Shirland Road, London W9 2EQ.
Tel: 0171 286 9720
Fax: 0171 286 0177

7th-10th
Florida: '1997 International Oil Spill Conference'.
Details: 1997 International Oil Spill Conference, 655 15th Street, NW, Suite 300, Washington, DC 20005, USA.
Tel: +1 202 639 4202
Fax: +1 202 347 6109

8th-9th
Rome: '6th Annual Mediterranean Gas Markets Conference'.
Details: Overview Gas Conferences, 82 Rivington Street, London EC2A 3AY.
Tel: 0171 613 0087
Fax: 0171 613 0094

10th-12th
Cyprus: 'The European Retail Petroleum Engineering Convention (ERPEC '97)'.
Details: McLean Events Ltd, 1 The Bank House, The Green, Datchet, Berkshire SL3 9JH.
Tel: 01753 594813
Fax: 01753 595727

15th
London: 'IGD Forecourt Conference: The Ultimate Fill-Up'.
Details: Institute of Grocery Distribution, Letchmore Heath, Watford, Herts WD2 8DQ
Tel: 01923 857141
Fax: 01923 852531

21st-22nd
London: 'Oil & Gas in Latin America: The Challenges Ahead'.
Details: Centaur Conferences, St Giles House, 50 Poland Street, London W1V 4AX.
Tel: 0171 434 3711
Fax: 0171 287 8706

27th-29th
Bath: 'Field Reactivation for the 21st Century'.
Details: The Conference Department, The Petroleum Group, The Geological Society, Burlington House, Piccadilly, London W1V 0JU
Tel: 0171 434 9944
Fax: 0171 439 8975

People

New York Mercantile Exchange has announced that **Louise M Burke** has been promoted to Vice President of Marketing. She will also have responsibility for the Exchange's Houston office. **Mr Randolf Warsager**, who held the position since January 1994, will assume the newly created position of Vice President of Institutional and Fund Marketing.

Mr Ian Wakefield has left MPSI Systems and is actively evaluating several new opportunities.

Former British Gas Chief Executive **Mr Cedric Brown** has agreed to chair IntelliHome, the two-year-old company that has devised a home energy automation system which, it is claimed, saves up to 40 percent on bills.

Dr John McCallum has become a full partner at Hannon Westwood Associates. He brings with him more than 25 years' experience in worldwide oil exploration, including 12 years in senior management positions. **Mr Bill Reid** has been appointed Finance Director.

Mr J van der Veer is to be appointed a Managing Director of Royal Dutch Petroleum Co, with effect from 1 July. He will also be appointed a member of the Presidium of the Board of Directors of Shell Petroleum NV, a Managing Director of The Shell Petroleum Co Ltd, a Director of Shell Petroleum Inc and hence a Group Managing Director.

Agip (UK) Ltd, the UK subsidiary of Agip SpA, has appointed *Rt Hon Tim Eggar* as Chairman. Mr Eggar resigned as Minister for Industry and Energy in July 1996 and will not be standing for re-election to Parliament. He is currently MP for Enfield North.

Mr Phil Parkinson, **Ms Katrina Cooper**, **Mr Geoff Tabor** and **Ms Jan Swan** have all joined RSK Environment Ltd, leaving their positions at British Gas Engineering Projects. Mr Parkinson has become a Director of RSK and his three colleagues have joined as Principal Consultants. The team will be responsible for UK contracts and will be working on a range of energy related projects including work for new power stations.

Mr David Mitchell, Chairman and Managing Director of WOSCO, having completed his period of secondment to Abu Dhabi Oilfield Services Establishment, is now resuming his duties with WOSCO.

Mr John Orange, who recently retired as Chief Executive at BP, has become a non-executive Director of Premier Oil.

Tuskar Resources plc has announced the appointment of **Mr Howard Wolf** as non-executive Chairman. **Mr Duncan McGregor**, who became Chairman in 1992, has resigned from the Board of Directors.

Chevron Corporation has announced that former US Senator **Mr J. Bennett Johnston** has been elected to its Board of Directors. Mr Johnston was a long-standing member of the Senate Committee on Energy and Natural Resources, for which he was Chairman for eight years. **Dick Matzke**, President of Chevron Overseas Petroleum Inc (COPI) and a Corporate Vice President has also been elected to the Board of Directors. **Mr Ray Galvin**, Corporate Director and a President of Chevron USA Production Co, has retired.

The International Marine Contractors Association has appointed **Mr Tony Read** as its new Chief Executive. He is currently Deputy Executive Secretary/Technical Director of the international E&P Forum and was previously Head of the Pollution Control/Safety Zone Section at the Department of Energy's Petroleum Engineering Division. **Ms Jane Bugler** is the company's new Technical Director. She was previously Head of the Health & Safety Executive Policy Section on Emergency Planning, Pipelines and Major Hazards Assessment Unit.

Mr Matthew Isotta has been promoted to Vice President in the GMC (Industries) Group, where he will continue to develop the firm's intellectual capital in the areas of oil and gas.

Mr Peter Schweinhage, Managing Director of Deminex UK Oil and Gas Ltd, has been appointed Manager, Corporate Business Development at the company's head office in Germany. He is also serving as a UKOOA (UK Offshore Operators Association) Vice President. His successor as Managing Director at Deminex will be **Joachim 'Jo' R. Groeger**, who is currently heading Deminex's joint venture activities in Cairo as General Manager.

The Board of Shell Transport and Trading Co plc has elected *Mr M Moody-Stewart* (above) as Chairman with effect from 1 July. He replaces *Mr J S Jennings*, who is retiring from office. Mr Moody-Stewart will continue as Group Managing Director of the Royal Dutch/Shell Group of companies. *Mr P B Watts* (below) will be recommended for a Directorship. Subject to such election, Mr Watts will assume the positions of Managing Director of the company, Managing Director of Shell Petroleum Co Ltd, member of the Presidium of the Board of Directors of Shell Petroleum NV, Director of Shell Petroleum Inc and hence a Group Managing Director.

The Council of the Royal Society has approved the appointment of **Mr Stephen Cox** to succeed **Dr Peter Warren** as Executive Secretary when he retires in June this year. Mr Cox is currently Director-General of the Commonwealth Institute in London and will take up his new appointment on 1 July, following an overlap with Dr Warren in June.

Institute News

NEW MEMBERS

Mr A O Ajaero, London
Mr H Akiyoshi, Arabian Oil Company Limited
Mr J Babb, Kvaerner Professional Services
Mr A J Bartlett, Rapleys
Mr T F Bell, North Sea Instruments Limited
Mr A K Bhutani, India
Mr G T Bourhill, Dumbartonshire
Mr J A Bowman, London
Miss C Burke, Esso Ireland Limited
Mr S R Camp, Western Atlas International
Mr A M Campbell, Simmons & Simmons
Mr D W Carter, GATX Terminal Limited
Mr I Cerfontyne, Simplex Chalmit Lighting Limited
Mr R A Cornish, Interconnector UK Limited
Mr B R E Croft, Arthur Andersen & Company
Mr L B Crossan, Dango Training Services
Mr I W Cunningham, Whessoe Varec Limited
Mr A J Currie, Rendel Palmer & Triton (Scotland) Limited
Mr C R Davies, Phoenix 2000 Limited
Mr M J P Dodson, Mat & Timber Services
Mr J-P Dolla, Elf Exploration UK plc
Mr S M Dowie, Glasgow
Mr I Dundas, Total Oil Marine plc
Mr M T Dunstan, Refinery Engineering Limited
Mr S P Goswell, Huntingdon
Mr C Harburn, Crawley
Mr G Hawkins, Gravesend
Mr P L Hewitson, Electrical Inspection Associates
Mr D G Hitchin, OIL Shetland
Dr M R Hoover, Cannon Instrument Company
Mr A G Hunton, Humber Technical Services
Mr M M Ibrahim, Arcadia Horizon Petroleum
Miss C A Ilori, Sydenham
Mr R Johnson, Optimarket
Mr R G Keating, Camberley
Mr C J P Kehoe, Clovemead Limited
Mr S Lawton, Societe Generale
Mr D Lloyd, Kvaerner Professional Services
Mr H Loba, Mostostal Zabrze Holdings SA
Mr J E MacDonald, Marketline International
Mr J Magain, Fina Research
Mr T Mallinson, Sevenoaks
Mr D J Manson, Aberdeen
Mr N M Marr, Dublin
Mr J G McCoubrey, Security DBS
Mr F L Milne, Dango Training Services
Mrs C B Moise, Christiana Bank
Mr G H Morgan, Credit Lyonnais
Mr T Murray, ICM Marketing Limited
Mr M A Newton, London
Mr J M Ngea, Total Kenya Limited
Mr P H Nicholls, Total Gas Marketing Limited
Mr L N Nwanemuogh, Linland (UK) Limited
Mr C O'Brien, SGS Guam Inc
Mrs A S Patrick, KFM Facilities Management Limited
Mr C M Penketh, Sanderson Chemical Consultants Limited
Miss E Pitkethly, ICM Marketing Limited
Mr D J Ramsay, Strathclyde
Mr M T Sambles, Germany
Dr A J Shipstone, Southampton
Mr T R Smeaton, Electrical Inspection Associates
Mr G S Thompson, Phoenix 2000 Limited
Mr C R Turner, Barrow on Humber
Mr J Urquhart, Greenergy International Limited
Ms S Varma, Isleworth
Mr M J Verity, Grimsby
Mr K J Welham, London
Mr G Whittle, Southampton
Mr T Williamson, North Yorkshire

STUDENTS

Mr G S Akpan, University of Dundee
Mr P G Hadjipieris, London
Mr M M Jagne, Oxford
Mr T P Myri, Aberdeen
Mr M Toko Tutonda, London
Mr L A Williams, Wetherby

NEW CORPORATE MEMBERS

International Energy Group,
PO Box 310,
St Peter Port,
Guernsey,
Channel Islands GY1 3TB

Representative: Mr Paul Fairclough
The International Energy Group is involved in the supply and distribution of LPG, natural gas, fuel oils and petroleum spirit.

Anadarko Petroleum Corporation,
17001 Northchase Drive,
PO Box 1330,
Houston,
Texas 77251-1330

Representative: Dr M D Cochran
Anadarko Petroleum Corporation is working to find new energy resources in the Sahara desert in Algeria, in the jungles of Peru, on the north slope of Alaska, the east coast of Africa, in Kansas and the Gulf of Mexico.

Clarman Architects,
Upper Floor, 40 Main Street,
Coalisland,
County Tyrone,
Northern Ireland BT71 6HF

Representative: Mr J Maneely
Clarman Architects are designers of service stations, retained as architects by a major oil company. They are also contract managers, retail buildings and shop interior designers and project managers.

Russian Petroleum Investor Inc,
18455 Burbank Blvd, STE 310,
Los Angeles,
CA 91356,
USA

Representative: Mr R Todd Holden
Russian Petroleum Investor Inc is a publishing/consulting firm specialising in the energy industry of the former Soviet Union. Publications include *Russian Petroleum Investor*, *Who's Who in the CIS Oil & Gas Industry* and the *Caspian Investor* series.

Eastern Natural Gas Ltd,
249 Caterhatch Lane,
Enfield,
Middlesex EN1 4BW

Representative: Mrs Dowdell
Eastern Natural Gas Ltd has grown rapidly to be one of the largest independent gas shippers in the United Kingdom. The company has interests in all parts of the value chain fom wellhead to burner-tip and, as part of Eastern Group, is an active participant in the wider energy market.

Institute News

NEW FELLOW

Mr S Lungwebungu

Mr Lungwebungu is currently the General Manager of Lublend Limited, which manufactures various types and grades of lubricants for AGIP, Caltex, Mobil and Total in Zambia. He graduated from the University of Zambia in 1982 and immediately joined the Zambia Consolidated Copper Mines Limited (ZCCM) as a Graduate Chemist and later was appointed Senior Chemist. In 1988, he left ZCCM to join Lublend as Chief Chemist. In 1990 he was appointed Plant Manager and in 1994 he was promoted to General Manager. He is also an active member of the Chemical Society of Zambia of which he is currently President.

The Annual Dinner of the Aberdeen Branch was held on 29 November 1996 at the Aberdeen Tree Tops (Stakis) Hotel and was attended by just over 400 people.

The audience was treated to two excellent speeches. The first by Mr John D'Ancona, former Director General of the Offshore Supplies Office, included his views on alliancing and contracting not being for the long-term good of the industry. The second speaker, Mr Robbie Glenn, former Governor of HM Institution, Cornton Vale, near Stirling, regaled the audience with – amongst other things – an amazing selection of stories concerning his time with the Prison Service.

Bob Hooks (left) presents Geoff Jones of SGS Redwood Ltd with the IP Certificate of Appreciation for his work on a number of IP Test Method Standardization panels. Geoff was a member of the Density, Cold Flow, Water and Sediment, General Fuel Tests and Sulfur panels, and chaired the Sulfur Panel from 1991 until 1995.

Corrections

L Mehew, Lindsey Oil Refinery, was one of the authors of 'Development of new values for toluene standardization fuels for the measurement of octane number' in last month's issue.

Because of transmission problems, two errors ocurred in the book review of *Paying for the Piper* in last month's issue. The third paragraph should read, 'The book provides a useful commentary on the economies of the industry in general.... Great play is made of the relationship between the safety regulators and the operators before and after the Cullen Report.'

AROUND THE BRANCHES

Stanlow
11 March: *IP Continuous Professional Development Discussion*, Bob Hook

Aberdeen
11 March: *The Captain Development*, Ralph Sinclair, Texaco

Yorkshire
11 March: Joint meeting with the Institute of Energy

Essex
12 March: *Aspects of marine safety and transportation,* Captain Bev Beale, Shell UK

Netherlands
13 March: *Oil spills and marine accidents in the port of Rotterdam*, Mr de Keyzer, Rotterdam Municipal Port Authority

Northern
18 March: *Compresssor lubrication*

North-East
18 March: *Clean-up of Stainsby Beck following the nitrobenzene spill after the A19 road tanker crash,* Mr M Riby, Environment Agency

Midlands
19 March: *The Future of Chlorinated Paraffins in Metalworking Lubricants – An Update*, speaker from ICI

East Anglia
20 March: *Alternative Fuels*

London
25 March: *Back to basics – bitumen* Martin Heslop, Acland Investments
April: This meeting has been cancelled

South Wales
28/29 March: Weekend visit to Birmingham

Obituary

Members associated with the IP work on Petroleum Measurement will be saddened to learn of the sudden death on 27 January of Lionel Williams.

Lionel joined Shell at the end of the war and worked in refineries in Trinidad and the UK for about 20 years. In the late 1960s he became the Shell International specialist on petroleum measurement and losses. In this post he was extremely active in giving technical advice and organising training courses in locations all over the world, where his presence was always welcome.

Until his retirement he was a member of the IP Petroleum Measurement Committee and Chairman of the Sub-Committee PM-F (Light Hydrocarbon Liquids) and a member of the Panel PM-C-3 (Calculations). He was actively involved in the corresponding work in both BSI and ISO.

Lionel will be remembered as a calm and 'unflappable' character with the determination to get things done. We extend our most sincere sympathy to his wife and family.

Recruitment

IP THE INSTITUTE OF PETROLEUM

Education and Training Manager

Circa £30-35,000 — London

This well-recognised society has three primary objectives: to provide information and technical guidance; to develop codes of safe practice and standards; and to improve knowledge and skills in the petroleum industry.

The organisation:

- Founded in 1913, now with 15 branches in the United Kingdom and three in Europe. Growing international focus
- Headquarters staff of 35: income circa £2.0 million
- Plays a vital role in self-regulation across the industry.

The position:

- Key role reporting to the Director General
- Production/publication of range of education material and careers information
- Active participation in careers seminars, teacher events, etc
- Leading role in implementing IP Lifetime Learning Programme
- Requires close co-operation with industry National Training Organisations.

Qualifications:

- Graduate with impressive management skills; knowledge of the oil industry preferred
- Strong communication and administrative skills; IT literate; innovative
- Experience of UK educational system, vocational qualifications, standards of competence, etc, desirable.

Please send full CV, stating current salary, to:
Ms S J Shrago, The Institute of Petroleum, 61 New Cavendish Street, London W1M 8AR

UK Deliveries into Consumption (tonnes)

Products	†Dec 1995	*Dec 1996	†Jan-Dec 1995	*Jan-Dec 1996	% Change
Naphtha/LDF	232,441	335,221	2,884,587	3,010,343	4
ATF – Kerosene	594,139	654,746	7,660,358	8,069,062	5
Petrol	1,744,581	1,752,915	21,854,806	22,186,253	2
of which unleaded	1,140,492	1,213,377	13,831,149	15,002,436	8
of which Super unleaded	61,036	42,508	942,388	700,316	-26
Premium unleaded	1,079,456	1,170,869	12,888,761	14,302,120	11
Burning Oil	384,677	406,253	2,769,032	3,326,143	20
Derv Fuel	982,624	1,060,709	13,456,809	14,379,992	7
Gas/Diesel Oil	598,795	640,094	7,227,246	7,634,796	6
Fuel Oil	609,688	663,938	7,975,198	6,908,318	-13
Lubricating Oil	63,165	64,404	895,439	865,592	-3
Other Products	682,677	729,185	8,961,329	8,780,440	-2
Total above	5,892,787	6,307,465	73,684,804	75,160,939	2
Refinery Consumption	591,165	580,570	6,481,172	6,608,578	2
Total all products	6,483,952	6,888,035	80,165,976	81,769,517	2

† Revised with adjustments *preliminary