centrica energy

Hydrocarbon Resources Limited
Morecambe Bay

Environmental Statement

2006

World Environment Day 5/6/07
HRL School Painting Competition Winner

Contents

1. Introduction

Centrica has grown steadily since de-merger in 1997 from British Gas plc. Hydrocarbon Resources Limited (HRL) was formed as a wholly owned subsidiary of Centrica. In March 2004 a new brand identity of Centrica Energy was launched to bring together all the upstream activities across the Centrica group, including HRL.

The South Morecambe Field, discovered in 1974, covers an area of 32 square miles. The North Morecambe Field, found in 1976, is 11 square miles. The first gas from South Morecambe came ashore in 1985. North Morecambe started supplying gas in 1994. Total gas reserves on discovery of both Fields were estimated at 179 billion cubic meters (6.45 trillion cubic feet (tcf)) with the top of the gas reservoir being 900 meters below sea level. The sea around the Morecambe Platforms is approximately 30 meters deep.

The two Morecambe Gas Fields in the Irish Sea are located 25 miles west of Blackpool. Over 400 staff and contractors work across the Morecambe operation, both offshore and onshore. Health, safety and the environment is and has always been a critical part of the Morecambe operation and its culture.

1.1 Purpose and scope of this document

DTI have requested that all existing UKCS operators undertaking offshore operations in 2006 must prepare an annual statement covering the calendar year. This statement must be made available to the public. HRL will ensure the statement is accessible from the Centrica website. DTI have indicated a basic scope of contents which have been followed. These include:

- Operator details
- Environmental Management System details
- Environmental performance summary

1.2 Hydrocarbon Resources Ltd

HRL operates two gas fields whose combined reserves are still amongst the largest in the UKCS in terms of remaining reserves. At peak production around 15% of UK gas supply was obtained from the Morecambe gas fields. Morecambe reserves are now in decline; however HRL are pursuing additional capacity opportunities. Increased activity in the area following the UKCS 24th licensing round is expected to provide further satellite opportunities and extend HRL field lives.

Between the South and North Morecambe Gas Fields a further 1.2 tcf of production is expected over the next 10 to 15 years. The two Fields also provide production services to other East Irish Sea Fields and will process at least a further 650 billion cubic feet (bcf) of third party gas in their lifetimes. As operator, HRL is already responsible for the day to day gas production activities. These fields include:

- Bains reservoir (a single subsea well tied back to the South Morecambe Central Production Complex)
- Dalton reservoir (two subsea wells tied back to North Morecambe)
- Millom (split into two areas, Millom East having 3 sub-sea wells and Millom West having a remote normally unmanned platform. Millom gas is also tied back to, and processed through the North Morecambe facilities)
- Calder (remote, normally unmanned platform with its own pipeline to Barrow and the Rivers Terminal)

Figure 1 Morecambe Central Processing Complex

2. Asset Description

2.1 Offshore

2.1.1 South Morecambe Field

The Central Processing Complex is a three-platform, bridge-linked complex with a flare boom tower. The three component platforms are:

- CPP: In the centre of the complex is the Central Production Platform (CPP). The import pipelines from the four satellite platforms terminate here, and the gas/condensate export pipeline begins at the CPP. There are no wellheads or accommodation. It houses all the main process and utilities modules. Gas compression and main power generation equipment are located here and the vent systems link to a flare arm off the northern side of CPP. A bridge to DP1 is located to the east of the platform.

- AP1: Located at the western end of the complex, AP1 is the accommodation platform. It has no process pipelines, nor any wellheads. It provides accommodation for a maximum of 174 persons. The AP1 is also the primary control centre for all the infrastructure. Two bridges link to CPP.

- DP1: At the eastern end of the complex, DP1 is the Drilling platform. It has risers from eight wells, plus a flexible import riser and control umbilical to Bains. Production separation takes place here and there is also a produced water treatment unit.

Export Gas Compression – Fuel Gas Fired

The compression system boosts the pressure of the gas produced from the reservoir as the natural pressure falls. The gas can then be delivered to the onshore processing terminals at an acceptable pressure. Two trains for export gas compression are powered by gas turbines. These account for more than 85% of fuel gas use at the installation during times of production, and consequently are also the source of the majority of the atmospheric emissions from the installation.

Principal Power Generation – Dual Fuel

Electrical power for the CPC is generated by up to four alternators driven by Ruston TB5000 dual fuel turbines located on CPP. Under current normal production conditions, it is sufficient to run two of the turbines to supply the electrical demand.

The normal fuel supply used is fuel gas although the facility does exist to use diesel in the event that fuel gas is not available. Ultra low sulphur diesel is used for all diesel applications at the installation. The power generation turbines are each fitted with Waste Heat Recovery Units.

Trials are underway to investigate the possibility of dehydrating the gas at the Barrow Terminal instead of on the CPC (i.e. operating the sealine 'wet'). If successful this will mean that the primary use of the heat recovered would be removed from the platform, with a corresponding decrease in overall energy efficiency. The project would however provide numerous health, safety and operational benefits.

Small Combustion Equipment – Diesel Fuel

In addition to the TB5000 turbines described above, there are a number of other items of diesel powered combustion equipment at the installation.

- Cranes
- Firewater pumps
- Diesel engine driven emergency or standby generators
- Caterpillar diesel engine driven foam pump

None of these units have a rated thermal input above 5 MW, and all are expected to operate for considerably less than 1,000 hours per year. Emissions and energy consumption by these combustion units are considered to be insignificant in comparison to those of the export gas compressors and principal power generation units.

Although termed "drilling platforms" there is now no drilling activity, the platforms being predominantly well-head platforms. Gas from the remote drilling platforms is transported via a pipeline on the seabed to the CPP and then taken to the South Morecambe terminal at Barrow-in-Furness via a 36 inch pipeline.

2.1.2 North Morecambe Field

Offshore the Drilling and Production Platform (DPPA), not normally manned, can be operated remotely from either CPC or the North Morecambe Terminal control room at Barrow-in-Furness. The North Morecambe development incorporates one of the most sophisticated gas processing terminals in Europe. All gas processing for the North Morecambe field takes place onshore, avoiding the need for complex equipment offshore. The gas composition from the North Morecambe field is different to that from the South Morecambe field, necessitating different onshore processing terminals.

2.1.3 Locations:

CPP (53° 50’48.15”N, 03° 34’50.66”W)
DP3 (53° 49’00.10”N, 03° 33’36.83”W)
DP6 (53° 51’54.20”N, 03° 36’59.94”W)
DP8 (53° 53’30.74”N, 03° 37’22.20”W)
DP4 (53° 52’33.95”N, 03° 33’39.48”W)
Bains (53° 52’33”N, 03° 27’56”W)
Calder (53° 48’26.92”N, 03° 39’48.04”W)
DPPA (53° 57’37.90”N, 03° 40’15.20”W)
Millom East (54° 00’38”N, 03° 46’15”W)
Millom West (54° 01’37”N, 03° 51’36”W)
Dalton (53° 54’16”N, 03° 43’17”W)

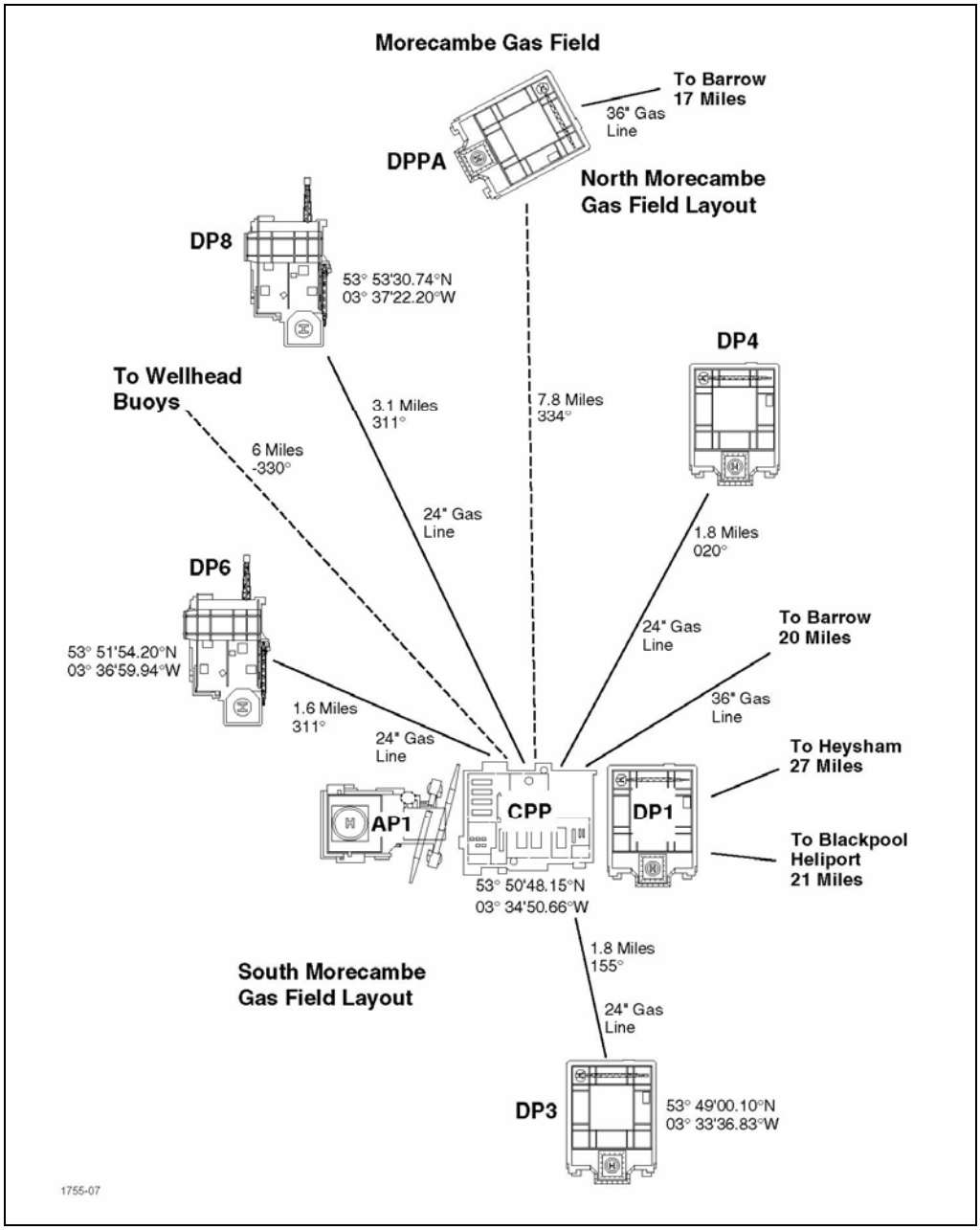

Figure 2 Morecambe Gas Fields Infrastructure

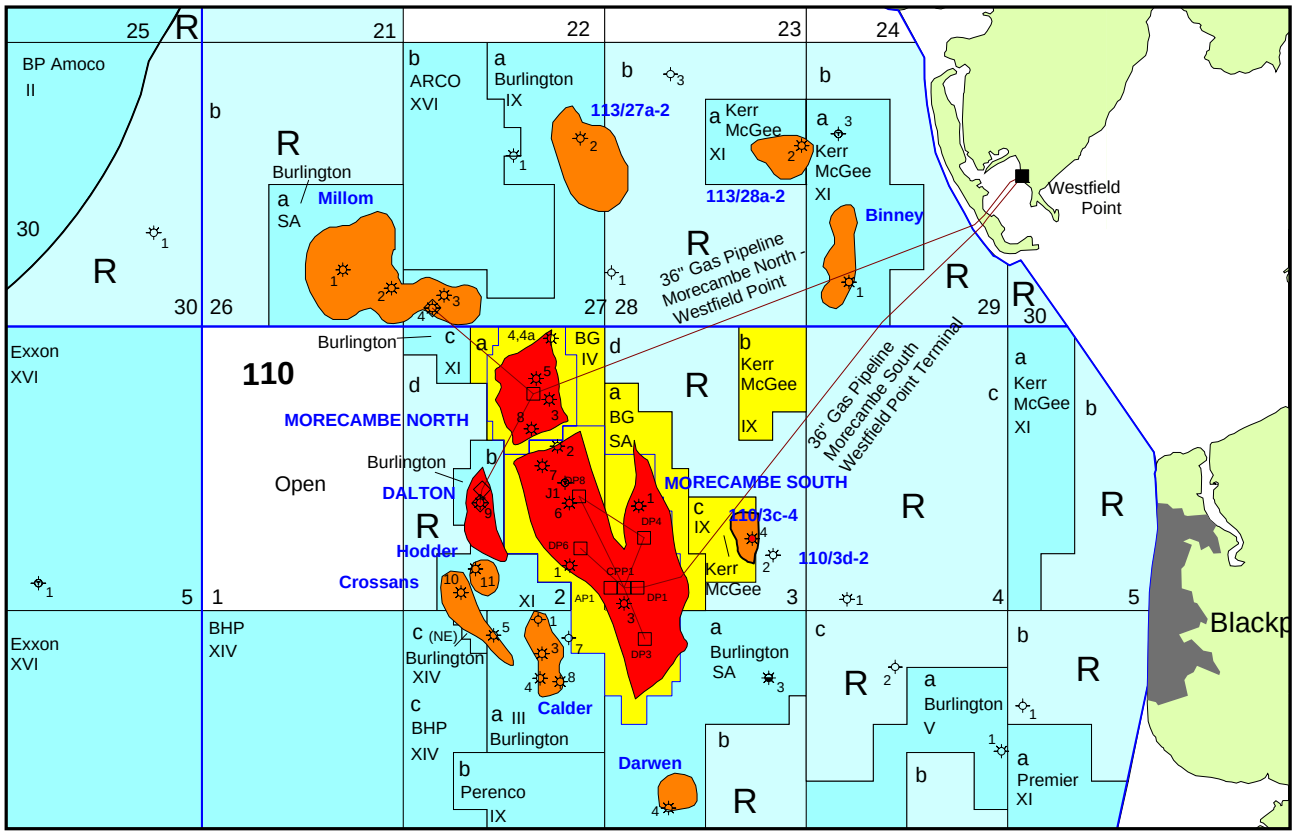

Figure 3 Offshore map

2.2 Onshore

2.2.1 South Morecambe Terminal

The South Morecambe processing comprises two phase gas/liquid separation followed by mechanical refrigeration to achieve hydrocarbon dewpoint. The gas stream is then sweetened using a side stream zinc oxide process which is then compressed to National Transmission System (NTS) grid pressure before fiscal metering and export to the NTS.

Hydrocarbon liquids are recovered from the two phase separator and refrigeration process before stabilisation and sweetening. Condensate is stored onsite before export through fiscal meters to a tank farm in Barrow docks. It is then taken away by sea tanker.

2.2.2 North Morecambe Terminal

Gas coming from the North Morecambe, Calder (Rivers), Millom and Dalton fields offshore needs to be treated differently to South Morecambe gas due to its higher content of carbon dioxide and nitrogen. Processing involves 3 phase separation before the gas stream is compressed and carbon dioxide is removed using an amine wash. The gas is then dewpointed using a silica gel dessicant and nitrogen removed in a cryogenic distillation process. The gas is then re-compressed to NTS grid pressure before fiscal metering and export to the NTS.

Hydrocarbon liquids are processed through stabilisation and sweetening. Condensate is stored onsite before export to the tank farm.

2.2.3 Rivers Terminal

Rivers Terminal receives sour gas from a dedicated sea pipeline. The Terminal removes hydrocarbon liquids from the gas (liquids are exported as a product), compresses the gas using gas turbine driven compressors, removes hydrogen sulphide using a solvent washing process and passes the gas to North Terminal. The solvent is regenerated for reuse. The hydrogen sulphide driven off from the solvent is sent to the Acid Plant. Here the hydrogen sulphide is burned to sulphur dioxide and then the sulphur dioxide is converted to liquid sulphuric acid. The acid is exported from the Terminal by road tanker and sold for industrial use.

2.2.4 Support activities
There is a field management and support base at Heysham Port, Lancashire. Surface vessels routinely supply the fields from here. Helicopter personnel movements are predominantly from Blackpool.

3. Organisation Management

HRL strives to demonstrate effective management of its health, safety and environmental responsibilities through accountability, implementation of measures to achieve organisational control, management commitment and leadership, personnel competence, workforce and stakeholder cooperation and effective communication.

3.1 Organisational Control

This is achieved within the organisation by:

- Application of suitable management structures that ensure top-down commitment and leadership to stimulate a positive safety and environmental culture
- Allocation of roles, accountabilities and responsibilities, and sufficient human and financial resources, to effect the prevention and control of health, safety and environmental hazards and their associated risks.

3.2 Commitment and Leadership

Commitment and leadership are the drivers for continual improvement of health, safety and environmental performance. Management leadership and commitment are expressed through:

- HS&E Policy endorsement, visible leadership and monitoring of its implementation at the most senior level in the Company.
- Encouraging workforce co-operation and commitment by demonstrating that practical substance is put to health, safety and environment policy by all levels of management and by supervisors, in order to maintain the positive culture already developed.
- Development of annual health, safety and environmental plans, produced in partnership with contractor companies that set the agenda for improved performance year on year
- Adoption of significant cultural improvement initiatives and direct engagement in industry-wide programmes
- Creation of a 'just and fair' climate in which all accidents, incidents and near misses are reported and investigated with the emphasis on management system deficiencies in their analysis
- Positive support for the Safety Representatives, attendance by senior managers at Safety Committees and annual workshops.

The HRL Board of Directors is ultimately responsible for ensuring that appropriate arrangements are in place to enable the company to discharge its HS&E policy requirements. Day-to-day responsibility for this is delegated to the Director Upstream Production and Development, who reports to the Centrica Energy Managing Director.

Figure 4 below shows the overall organisation for Centrica Energy's Upstream Production and Development. It comprises six divisions, which include exploration and joint ventures, projects, Morecambe area assets, commercial and business services and HSE& Q.

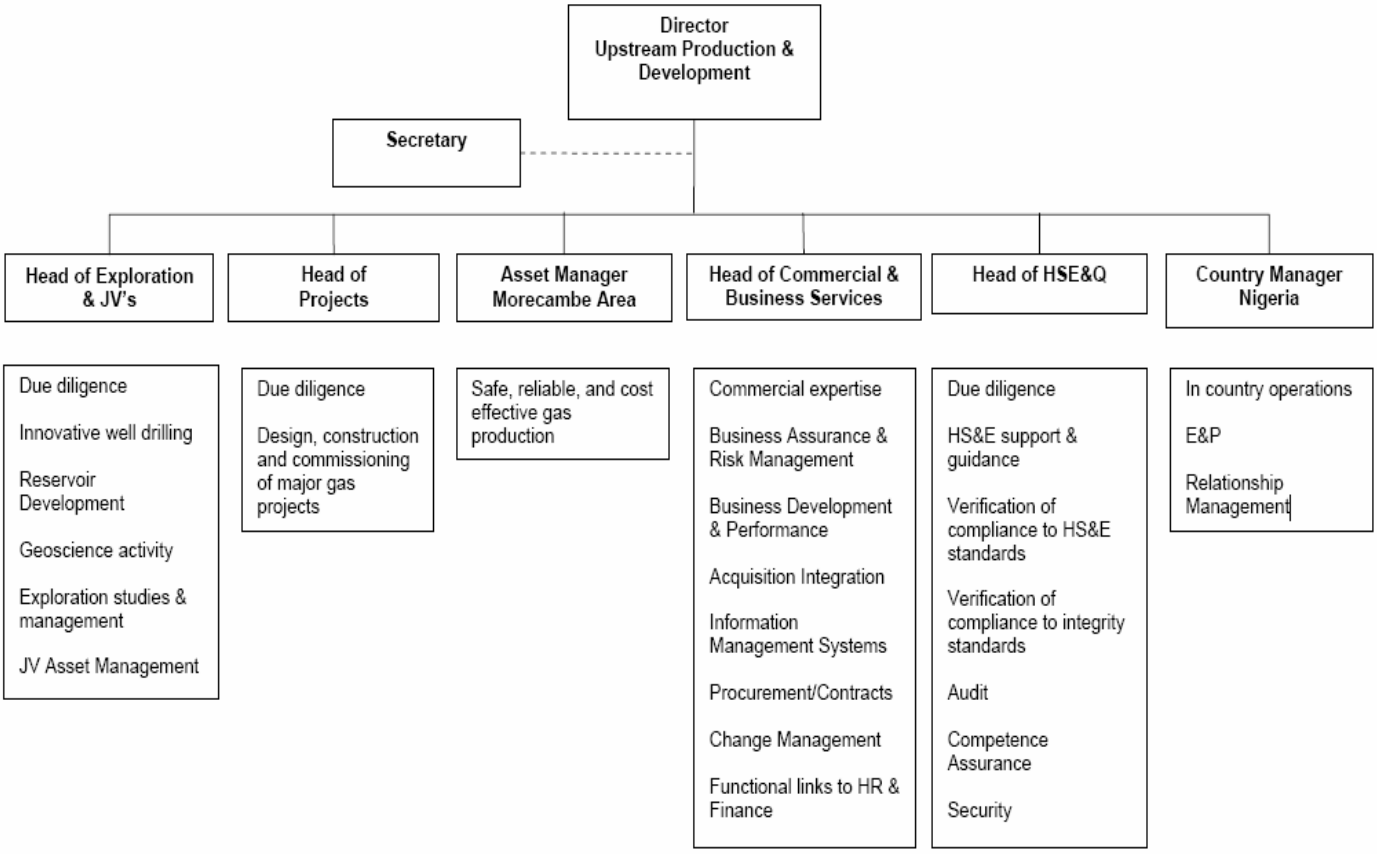

Figure 4 Centrica Energy Upstream Production and Development

3.3 Corporate Accountability

The Director Upstream Production and Development is accountable for the operational performance of the HRL assets in respect of safety and environmental impact, production efficiency and operating and capital costs. The Director Upstream Production and Development is responsible for ensuring that:

• Necessary resources are made available to implement the HS&E Policy

• Regular reports are made to the HRL Board on matters relating to health, safety and environmental performance and policy implementation

• Through the influence of effective leadership and personal commitment and behaviour, the Director Upstream Production and Development proactively promotes the development of safety related business processes and a strong HS&E culture that together aim to deliver best in class performance throughout the organisation.

4 Environmental Issues and Significant Aspects and Impacts

Areas of environmental focus within the HRL environmental management programme are:

4.1 Atmospheric emissions

Atmospheric emissions are generated prominently from the main combustion processes.

- Main electrical power for CPP is generated by four Ruston Gas Turbines. The turbines are capable of running on either diesel or usually on gas. Combined these generate around 12% of CPP CO2 atmospheric emissions.

- As the South Morecambe reservoir pressure has fallen, compression has been required to ensure that gas can continue to be exported into the NTS. The compressors comprise two parallel trains, each driven

by Rolls Royce RB 211 industrial jet engines. This thrust is utilised by a power turbine, directly coupled to the compressor main shaft. These are responsible for around 85% of CPP CO2 emissions.

- Additional combustion sources come from a number of diesel powered standby generators, firewater pumps, cranes and lifeboats. There are no significant combustion facilities on the remote platforms.

4.2 Gas flaring and venting
Natural gas is a valued commodity and flaring and venting operations are minimised where possible. Small amounts of gas are, however, burnt (carbon dioxide emissions) in flare systems or vented (methane emissions) for the following purposes:

- Planned depressurisation of gas inventories to allow plant maintenance, repairs or modifications to be carried out

- Emergency depressurisation of gas inventories in response to safety protection systems operating

- Disposal of small purge flows from gas blanketing systems in flammable liquid storage tanks or to maintain flare/vent systems free of oxygen.

There is a permanently lit flare on CPP whilst the remote platforms only have vent capability. HRL have an annual flare and vent consent requiring a detailed annual report to DBERR.

4.3 Produced water discharges to sea
Formation water found in gas reservoirs is produced in small quantities as a by-product with the gas. In the South Morecambe Field, between 2004 and 2006, produced water treatment at the remote platforms was centralised to CPC. North Morecambe has a wet sealine with water treated in the North Morecambe Terminal (NMT). This 'produced water' is treated to remove hydrocarbon condensate and discharged into the sea. Through treatment system design and performance monitoring, the hydrocarbon content in the produced water is restricted to an industry agreed limit, currently 30 parts per million by volume.

4.4 Accidental spills
Offshore operators are required to report every hydrocarbon spill into the sea, to carry out an investigation into the causes, and to take steps to avoid recurrence. Unlike oil production installations, gas producing platforms have only small inventories of hydrocarbon liquids, namely hydrocarbon condensate and diesel fuel.

4.5 Chemical use and discharge
Offshore gas production utilises bulk chemicals to assist the required physical processes. Large machines such as compressors and pumps require lubricants. Steel structures and pipe work need protection against corrosion, although this is normally via passive coatings or internal chemical dosing.

4.6 Waste management
As with any industrial activity, solid and liquid waste streams are created. All offshore waste is transported onshore for disposal via a waste transfer station at the Heysham Support Base. Extensive segregation facilities are provided offshore and onshore.

- Solid Waste
  Procedures are in place to ensure that all wastes are correctly stored and disposed of. Solid waste streams generated from the routine operations are limited. Additional solid wastes are generated during periods of maintenance. Hazardous and non-hazardous secure waste containers are provided offshore for each. All waste containers are stored in designated and labelled areas.

- Liquid Waste Streams
  There are limited routine liquid wastes produced during normal operation. The operation and maintenance of the combustion equipment at the installation generates waste lubricating and maintenance oils, which are collected and stored in dedicated containers. Marine tanks are used for the carriage of waste oil and are specified for offshore. They are routinely inspected and tested to ensure integrity. The waste oils are stored in dedicated labelled areas until they are transferred to the on-shore support base at Heysham.

- Waste Collection
  Periodically wastes are transferred from the platforms by boat to the on-shore support base at Heysham. All wastes collected are manifested onto the ship from each individual platform so that the origin of each waste container is known. During shipment, drums containing liquids are shipped in secondary containers. Hazardous waste is formally consigned through EA notification for the support vessels to the onshore support base waste transfer station.

4.7 Emissions Trading

In compliance with the Greehouse Gases Emissions Trading Scheme (ETS) Regulations 2005, the Central Processing Complex has a verified permit DTI1200.

4.8 PPC Permit

In accordance with the Offshore Combustion Installations (Prevention and Control of Pollution) Regulations 2001, HRL prepared an application for submission to DTI in 2007. The approach is based on Best Available Technique (BAT). PPC aims to prevent emissions and waste production and where that is not practicable, to reduce them to acceptable levels.

5. Corporate Standards

At Corporate level, the 2006/10 environmental action plan identifies the need for a Group Environmental Management System (GEMS). In 2006 Centrica developed the GEMS template, which meets all of the ISO14001 requirements. Centrica's long-term target is to ensure that all of our businesses have fully implemented GEMS. As part of our environmental stewardship we will be looking at ways in which we can help promote environmental best practice by providing ISO14001 and EMAS support to our suppliers and contractors through the GEMS template.

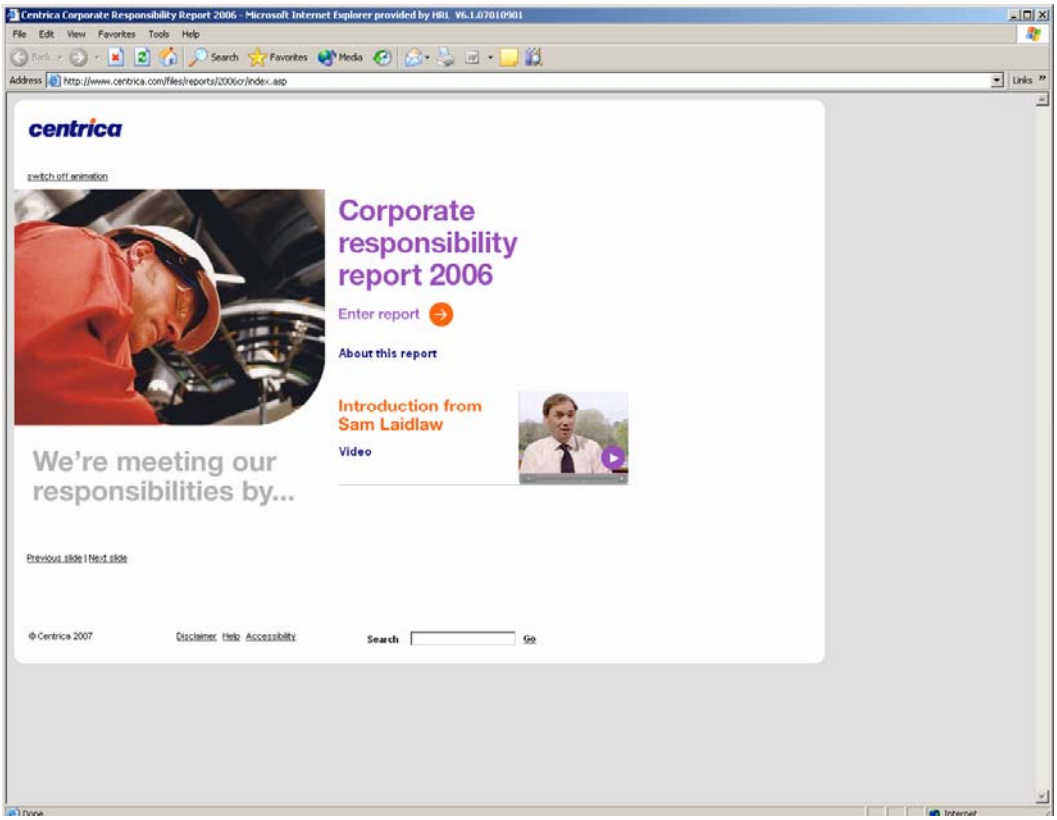

Figure 5 Corporate Responsibility Report 2006. This covers the corporate responsibility activity and performance from 1 January 2006 to 31 December 2006. The report is externally assured by The Corporate Citizenship Company. It is available on the internet site http://www.centrica.com/responsibility.

Centrica are committed to understanding, managing and reducing the environmental impact of our activities and will seek to implement internationally recognised environmental management systems to achieve this aim. In particular, we are committed to the development of renewable energy sources that will facilitate the reduction of our carbon footprint. We will enable our customers to participate in the move towards a low carbon future and encourage our employees to make responsible use of resources.

6. Management Systems and Improvement Plan

HRL has an Integrated Management System (IMS) which encompasses the Environmental Management System (EMS). The IMS and EMS have intranet sites which are available to HRL staff. IMS is updated through reviewed processes on weekly basis keep up with change in legislation and industrial practice.

6.1 Health, Safety and Environmental Management

Responsibility for operation of the Morecambe area assets lies with Hydrocarbon Resources Limited (HRL). HRL is committed to operating the offshore installations in a way that prevents harm to people or to the natural environment. To this end health, safety and environmental (HS&E) management measures have been put in place and are regularly monitored to:

- Ensure compliance with all relevant legislation;

- Sustain the major hazard prevention and mitigation arrangements in place in order to control the risks to people and the environment to acceptable levels; and

- Deliver high standards of HS&E performance consistently and seek to improve these at every opportunity.

Even in well-managed organisations there is potential for accidents to occur, resulting in serious and minor injury, ill health and damage to the physical assets or to the environment. To prevent accidents or control their consequences, HRL has established key policies and introduced specific management measures to implement the policy requirements, within the Integrated Management System (IMS).

6.2 Environmental Management System

Our environmental policy seeks to protect the natural environment, to conserve resources and promote the principles and practices of sustainable development. Our policy is delivered through an Environmental Management System (EMS), which was certified in February 2001 and re-certified in February 2005 against the international standard ISO14001 using BSI verifiers. In 2007, Centrica changed verifiers to DNV, and successfully transferred Certification.

DET NORSKE VERITAS

MANAGEMENT SYSTEM CERTIFICATE

Certificate No. 08243-2007-AE-LDN-UKAS

This is to certify that

Hydrocarbon Resources Ltd
North & South Terminals & Rivers

North Quay Heysham Harbour Morecambe Lancashire LA3 2UH	Barrow Terminals Rampside Road Barrow in Furness Cumbria LA13 0QU	Condensate Storage Facility Ramsden Dock Barrow in Furness Cumbria LA14 2TW

has been found to conform to the Management System Standard:

BS-EN-ISO 14001:2004

This Certificate is valid for the following product or service ranges:

The management of the significant environmental aspects associated with Gas Production, processing and supply.

The scope includes all off-shore and on-shore operations within Morecambe Bay, off-shore central processing complex and surrounding satellite installations DP's 3,4,6 and 8, DPPA, Millom West and Calder Fields, Heysham field management and support base, the Barrow condensate tank farm and the Barrow in Furness terminal site.

Initial Certification date: 12 March 2007

Place and date: Rotterdam, 19 June 2007

This Certificate is valid until: 31 August 2010

UKAS ENVIRONMENTAL MANAGEMENT 013

for the Accredited Unit: DNV Certification B.V., The Netherlands

The audit has been performed under the supervision of:
P. Reed
Lead Auditor

B. Kroondijk
Management Representative

Lack of fulfillment of conditions as set out in the Appendix may render this Certificate invalid.

DNV 7568/2.2

DNV CERTIFICATION B.V. Havenrechtstraat 7, 3079 DC Rotterdam, The Netherlands

Figure 6 Current DNV Certificate

The system helps ensure that we manage our environmental risks, reduce our impact on the environment and identify opportunities for improving our performance. The main requirements are that we:

- assess the significance of the effect our activities can have on the environment
- implement robust controls to manage our environmental performance and set and meet objectives to reduce our environmental impact
- commit ourselves to continual improvement, to prevent pollution, and to comply with environmental legislation and regulations.

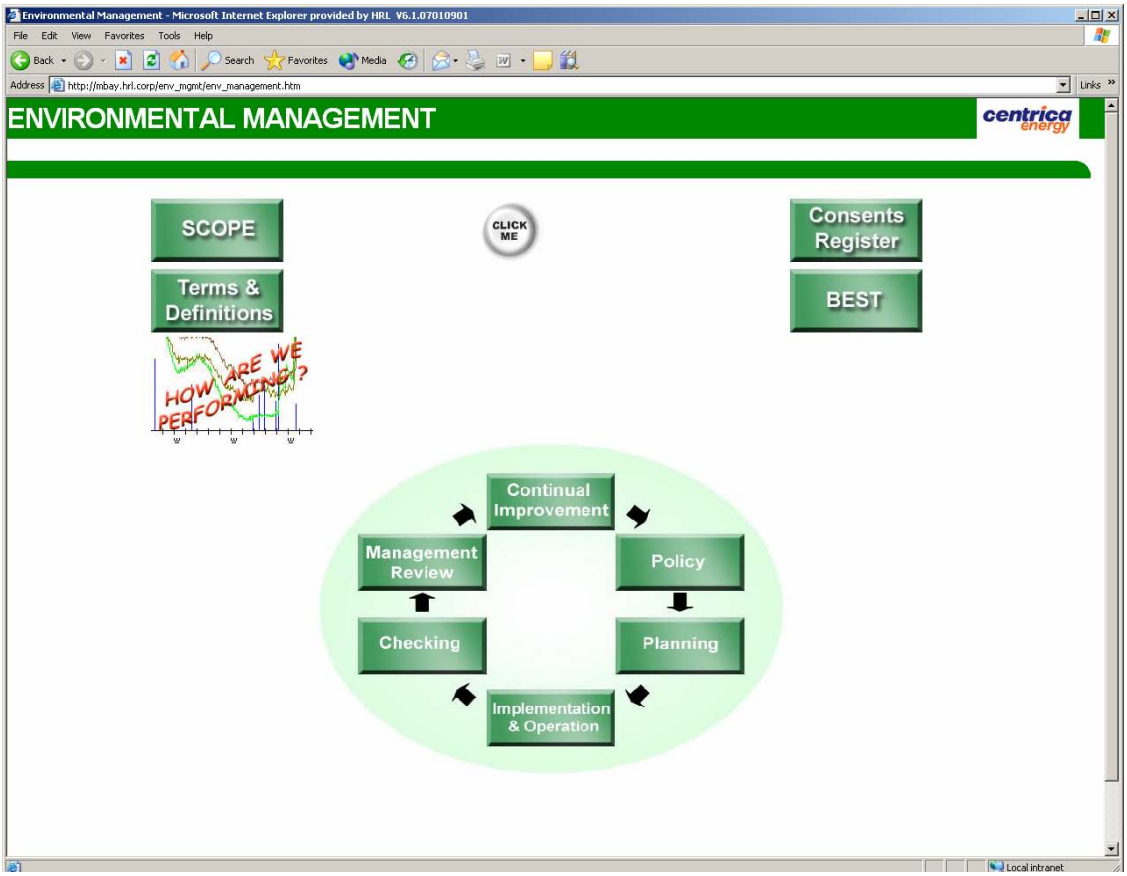

Figure 7 Environmental Management System Internal Homepage

6.3 Integrated Management System

The IMS has been developed as part of HRL's business improvement strategy. It enables capture and dissemination of the various elements of HRL's management system in an integrated and interconnected way. Using intranet technology, the interdependency and interrelationship between management information, appropriate to all levels of the organisation, can be effectively described and communicated to those who require the knowledge.

IMS integrates the HS&E elements with the overall business management system and connects policy and standards, strategy objectives and business processes, relating these to the HRL organisation. IMS applies process-based management to describe how, when and where the processes are implemented and by whom to achieve what.

The advent of intranet technology obviates the need for paper-based systems to enable a much greater degree of interactivity within the traditional hierarchy of management system documents. It provides an effective communication medium and facilitates management of change. It is user-friendly and flexible and is continually developed and updated. The next figure shows the IMS homepage screen.

The IMS uses 'process maps' to communicate responsibilities and actions across departments and functions. This allows individuals within the Morecambe Operation to understand HRL's policies, aims and objectives, to work in line with relevant legislation and to implement the risk control measures that apply to them.

Figure 8 IMS Homepage

6.3.1 HS&E Policy

The Centrica Group HS&E Policy, endorsed by the Chief Executive on behalf of the Centrica Board of Directors, establishes high-level objectives for the Group. These are translated at Business Unit level by preparation and issue of Business Unit HS&E Policies.

The HRL policy statement recognises that the health and safety of employees and others affected by its operations, and the protection of the environment, are an integral part of business performance and a prime responsibility of personnel at every level. The organisation and arrangements section covers management and individual responsibilities and indicates how health, safety and environment specialists provide advice. It can be seen that the policy requires the establishment, operation and maintenance of a safety management system for its implementation. This requirement is delivered by the IMS.

6.3.2 Major Accident Prevention Policy

HRL has put in place a Major Accident Prevention Policy (MAPP). The MAPP recognises the importance of preventing and controlling major accident hazards. It reinforces HRL's commitment to the safety of employees, and to the minimisation of both the risk to the public and the impact on the environment of its activities.

6.3.3 Production Policy

This policy seeks to assure the reliability and integrity of the producing assets by the provision of an effective organisation and systems of work and effective arrangements for:

- Plant operation
- Maintenance and modification including fabric maintenance
- Monitoring and surveillance to assure asset integrity
- Business risk management

6.4 Current Environmental Improvement Programme
HRL have sought to maintain continual improvement in environmental performance maintaining processes to ensure legislative compliance and to ensure that the ISO 14001 certificate was retained throughout 2006 with no non-conformances being recorded by the independent certifying body.

A major focus during 2006 has been ensuring legislative compliance with the forthcoming requirements of Pollution, Prevention and Control (PPC) legislation, as it applies to the onshore Barrow Terminals, offshore Central Complex and the Heysham Waste Transfer Station, which forms part of the Heysham offshore support base.

The majority of actions in the 2006 Improvement Plan were based around the PPC work scopes, but additionally included:

- successful updating of the offshore chemical permits
- engineering studies for flare recovery and reduction
- potential for electrification of offshore
- continued promotion of the East Irish Sea Waste Working Group
- successful reduction of offshore oil storage inventory

Environmental performance has remained a focus with offshore work groups during the regular Safety & Environmental Awareness Meetings. Reporting of environmental incident and near misses remains a strong part of HRL's offshore culture and he following learning opportunities were noted and responded to:

- An unknown quantity of waste oil was poured into a drain gully on M2 roof with the potential for discharge to sea, although this was contained within the closed drains system. Potential implications were communicated at SEAMs and correct waste disposal processes reinforced.
- Whilst depositing rubbish in general waste skip, Technician noticed oil emanating from base of skip onto the platform deck. The skip was emptied and non-contaminated wastes recovered. The spillage was contained on the deck with oil-soak and no actual discharge to the sea occurred. Learning from this incident was disseminated at SEAMs.
- A hydraulic oil leak was found on a wellhead wing valve hydraulic supply line due to a leaking threaded fitting, resulting in approximately 35 litres being lost to sea. The incident was reported by PON 1 and a survey of similar fittings on all remote platforms undertaken to ensure no other loose fittings were in existence or likely to leak.
- An unplanned release of Oceanic HW 443 hydraulic fluid from a subsea well on Millom East reservoir occurred due to a leaking or sticking solenoid valve, resulting in 217 kg of fluid being lost directly to sea. This was not part of the planned discharge under the Offshore Chemical Permit and was therefore reported under a PON 1. Exercising of the valves returned the system to normal with no further unplanned discharges during 2006.

7. Offshore Performance Data

Figures 9 - 15 show data covering a variety of environmental aspects.

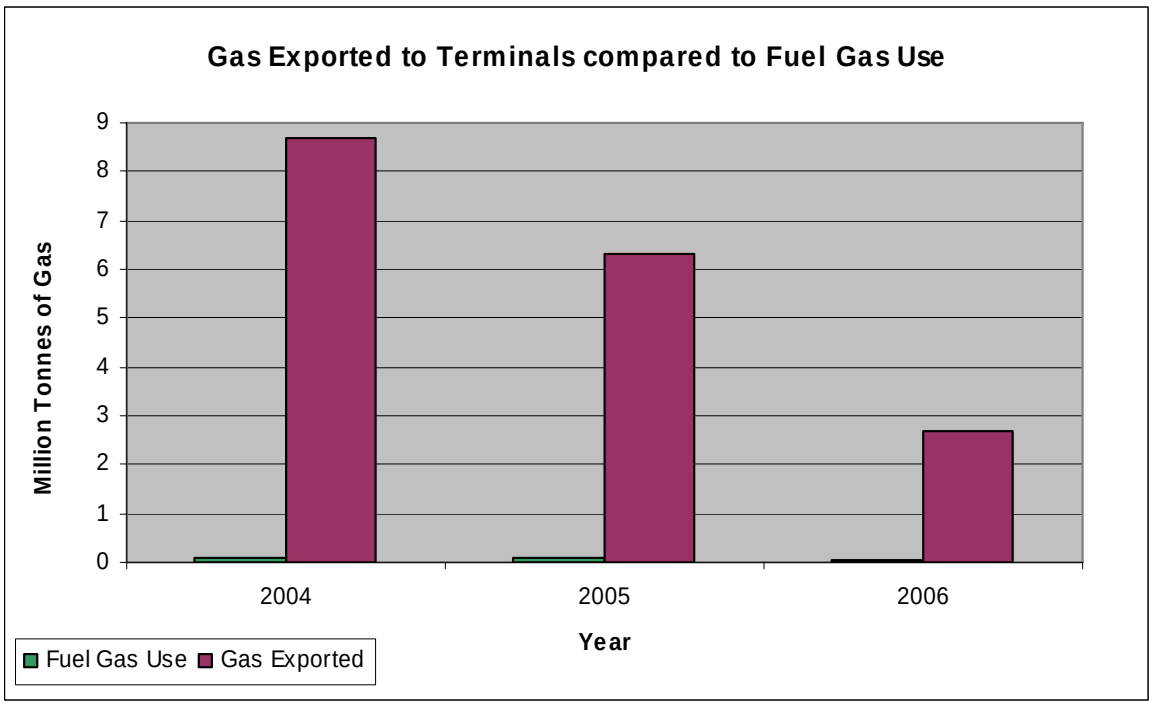

Figure 9 - Gas exported to the terminals compared to the fuel gas use offshore in millions of tonnes. Whilst reserves are declining, the Centrica production philosophy has also changed to consider Morecambe reservoirs as part of a wider portfolio strategy.

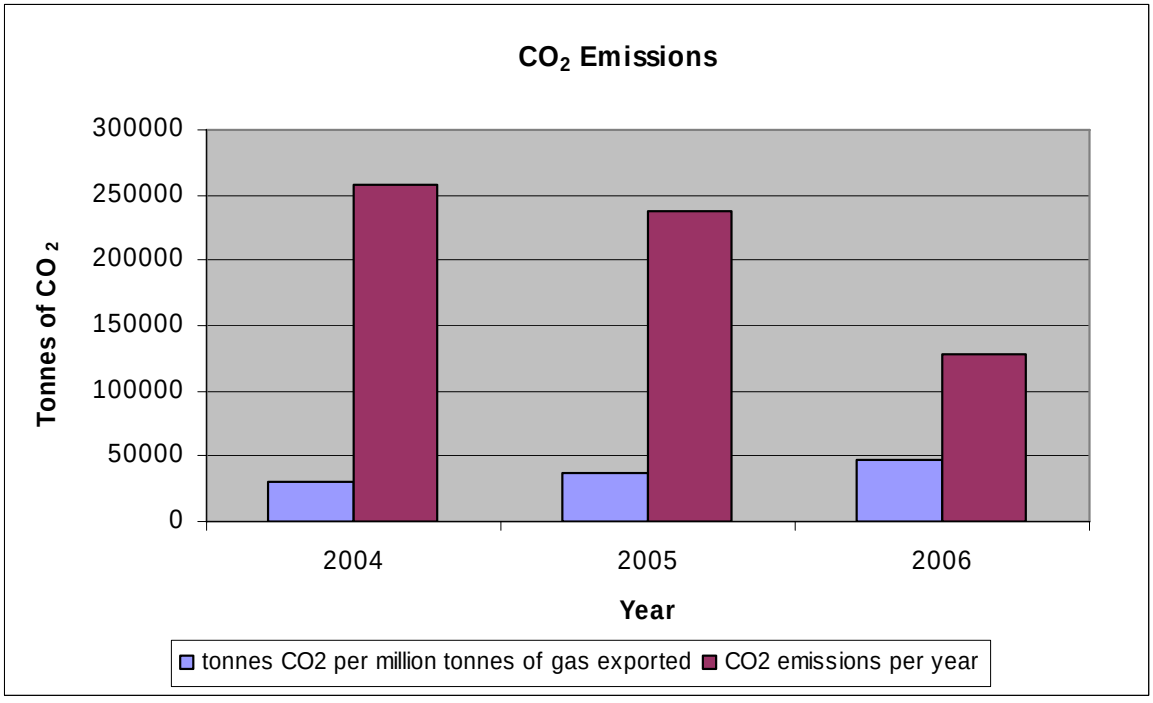

Figure 10 - Direct CO2 emissions for each year from CPP are declining however rise slightly when shown in relation to the amount of gas exported.

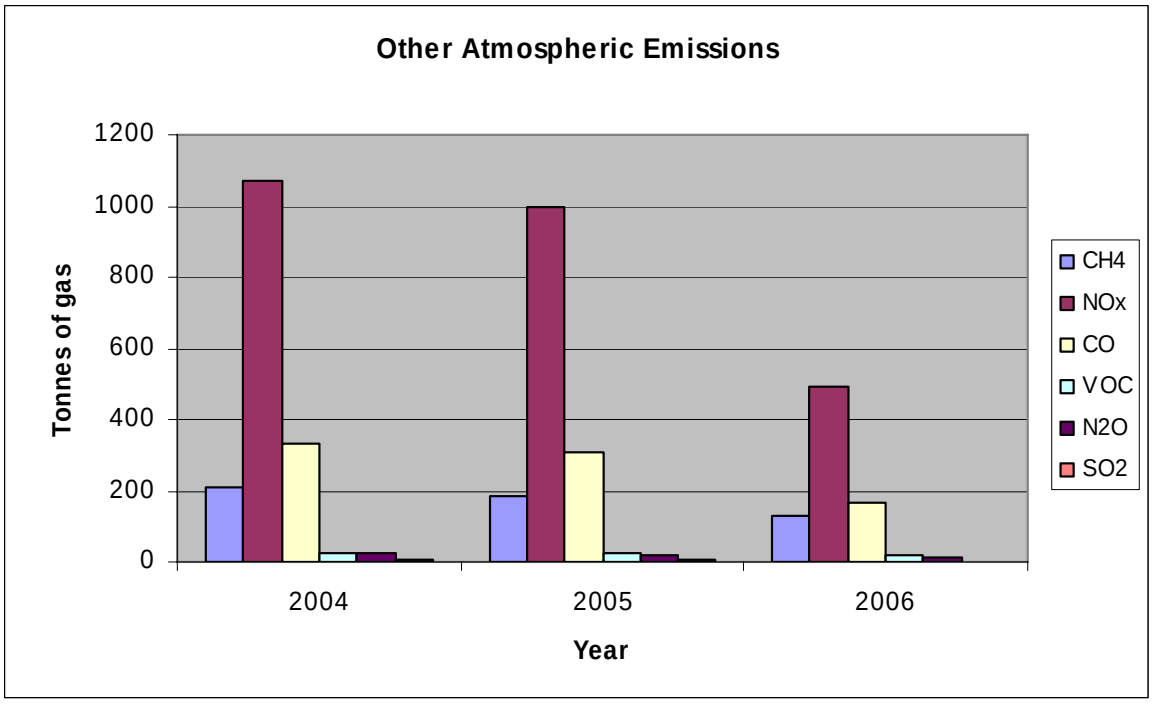

Figure 11 - The tonnes of atmospheric emissions relative to the amount of gas exported each year.

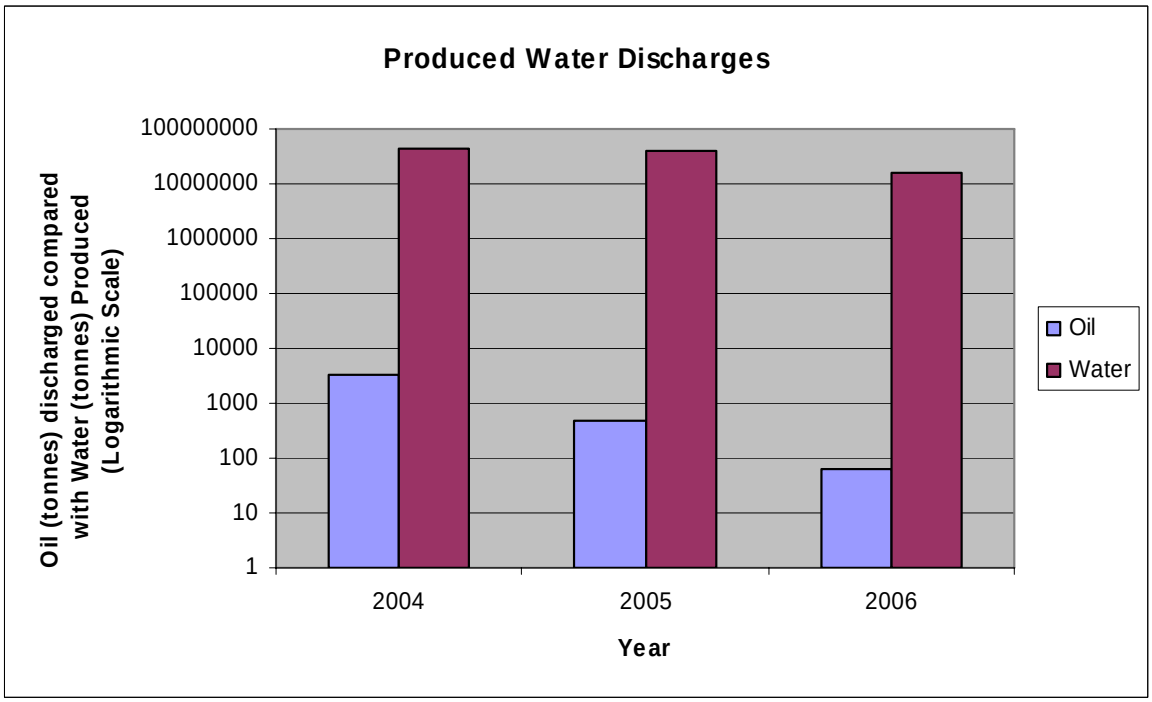

Figure 12 – The volume of oil being discharged against the volume of produced water. There has been a step change significant reduction of oil (condensate) discharged due to centralisation of oil in water systems.

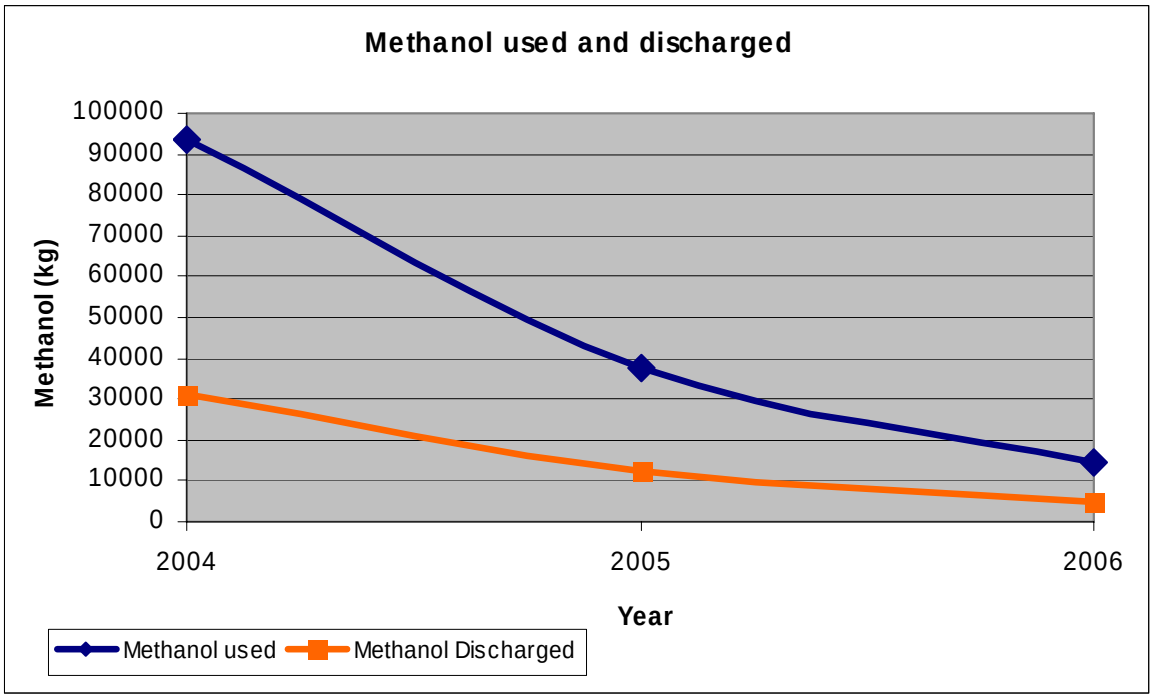

Figure 13 - kilograms of methanol used and discharged has shown a steady reduction.

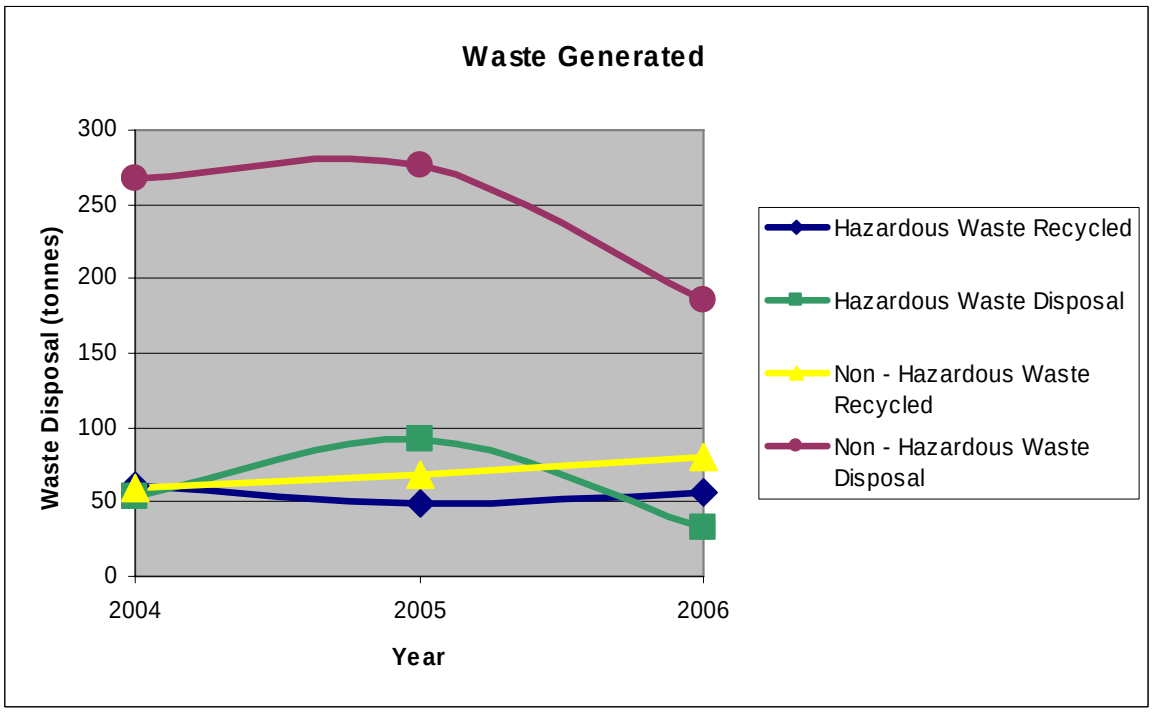

Figure 14 - Hazardous waste sent for disposal is linked to specific maintenance projects however is decreasing as recycling of hazardous waste increases. Similarly non hazardous waste recycling has steadily increased as waste sent for disposal has fallen.

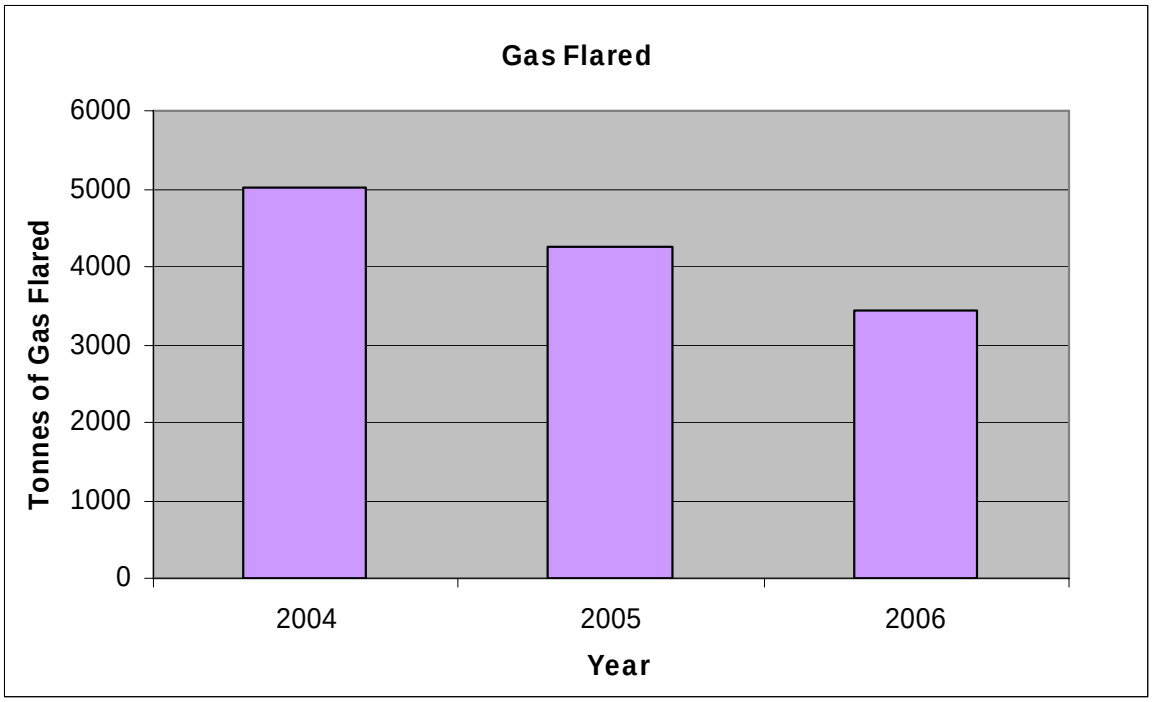

Figure 15 – Central Production Complex is the only offshore installation that flares. There has been a steady reduction in flaring as studies have identifies opportunities for improvement.