




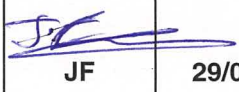
**NORTH SEA PRODUCTION
COMPANY LIMITED**

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NSP



North Sea Producer FPSO Annual Environmental Statement 2013



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Introduction

This document represents the Annual Environmental Statement for the North Sea Producer (NSP) Floating Production, Storage and Offloading (FPSO) facility owned by Maersk FPSOs and operated through the North Sea Production Company Limited (NSPCL) in joint venture with Odebrecht. The purpose of this statement is to demonstrate the continual improvement in environmental performance and goals in operating our facility during 2013 in line with the requirements set out in OSPAR Recommendation 2003/5.

NSPCL is a subsidiary of Maersk FPSOs who provide operational support, personnel, maintenance, logistical services and management systems. Our environmental commitments stated in our Environmental Policy are implemented through Maersk FPSOs' Environmental Management System (EMS). Maersk FPSOs' EMS is compliant with the ISO 14001:2004 Standard and through audits and reviews we strive to continually improve it.

About NSPCL

NSPCL is a joint venture between A.P.Møller-Maersk Group and Odebrecht Óleo e Gás S.A. and was awarded the contract by the licence holders for the exploitation of the MacCulloch field. NSPCL is also the pipeline operator and holder of the Pipeline Works Authorisation.



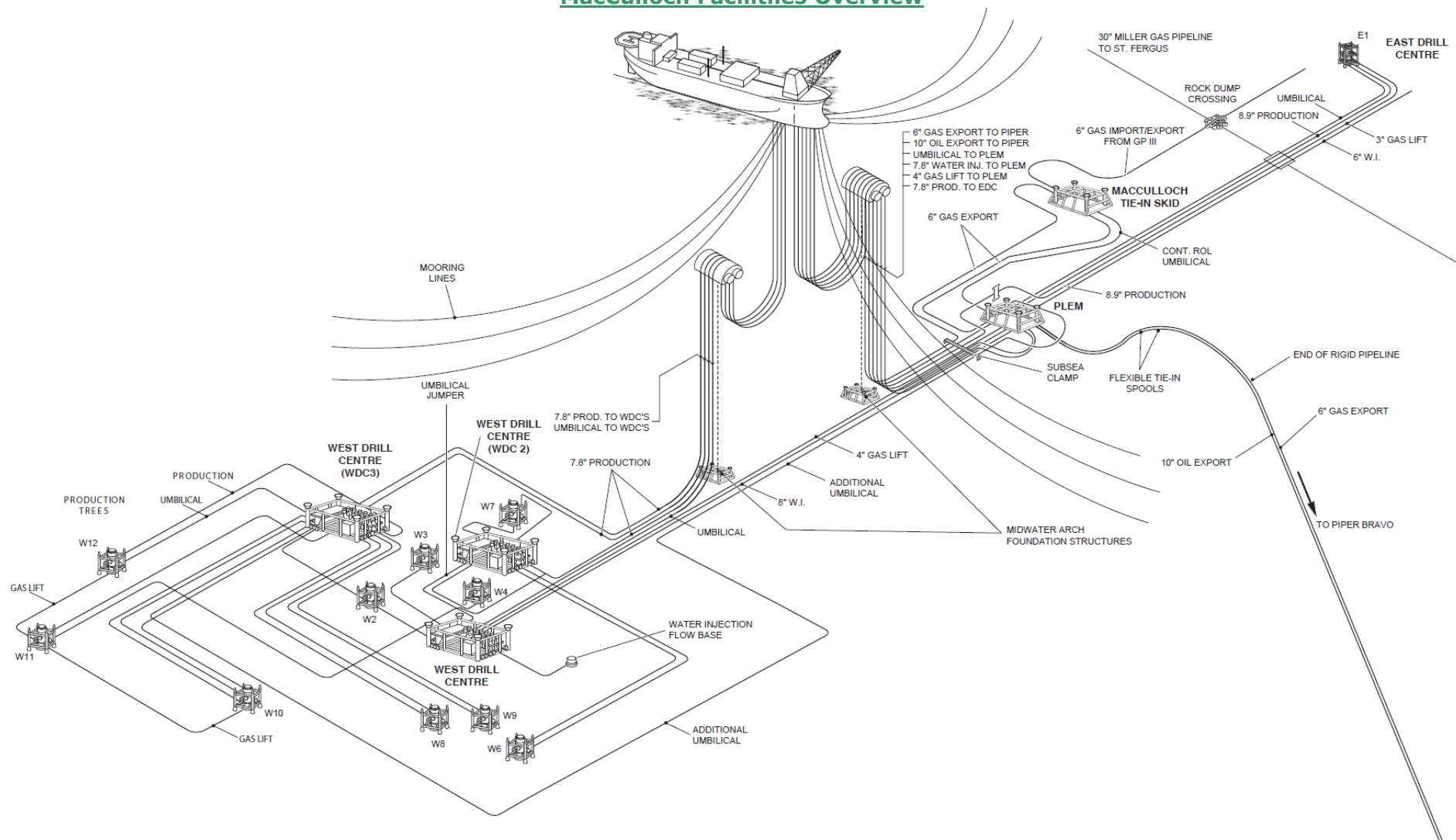
The NSP FPSO is moored in the MacCulloch Field, 250 km northeast of Aberdeen, Scotland. This unit is 236 metres long, 40 metres wide with a draught of 15 metres and operates in a water depth of 150 metres.

The export pipelines are approximately 35 km long and transport oil and gas via the third party owned Piper B facility. The NSP FPSO was fabricated in early 1997 with the conversion of the Dagmar Maersk petroleum tanker into a fully integrated FPSO facility. Production from the MacCulloch field started in August 1997.

As illustrated in the schematics below, a forward-mounted internal turret moors the FPSO with a mooring spread connected to a chain table. The well fluids from both East and West Drill Centre are transferred through a swivel stack in the turret.

In 2013, the annual oil production from the MacCulloch Field was 1.25 million barrels (bbls), with average daily production being 6,914 bbls, while online. There was no gas export in 2013. A two production shutdown periods occurred between 23rd December 2012 and 11th May 2013, due to a malfunction in the primary subsea control system, and between 6th October 2013 and 19th November 2013, when permanent repair of the umbilical was undertaken. During the shutdown various maintenance work scopes were addressed.

MacCulloch Facilities Overview





NSPCL Environmental Policy

NSPCL is committed to the protection of the environment. Our level of ambition is reflected in the emphasis we place on all environmental aspects of managing our operations both offshore and onshore. This commitment is stated in NSPCL's Environmental Policy, which governs the EMS.



ENVIRONMENTAL POLICY

The North Sea Production Company Ltd is committed to protecting the environment and to minimising the environmental impact of our operations. We aim to conduct our activities in a manner which meets or exceeds the environmental standards required of us. We recognise that this goal is only met through the involvement and empowerment of all of our employees and contractors.

To achieve our environmental goals, we will continue to:

- Comply with all regulations, class requirements and industry best practice affecting our environmental performance.
- Through compliance with the principles of ISO 14001, operate an Environmental Management System that allows us to control, monitor and reduce the environmental impact of our operations.
- Verify the effectiveness of our Environmental Management System by conducting regular inspections, audits and reviews to help us identify areas where we can improve.
- Reduce the environmental impacts of operations through emphasising pollution prevention and implementing measures for mitigating consequences of accidental pollution.
- Ensure that all our employees and contracted staff are aware of their duty to act responsibly on environmental issues and are sufficiently trained and competent to meet the requirements of their post and of the environmental management system.
- Ensure that all employees and contractors are aware of their moral obligation to intervene when potentially environmentally unsafe acts or omissions are observed.

David Cannon
General Manager
North Sea Production Company Ltd
March 2011

Environmental Management System and ISO 14001:2004 standard

The NSPCL Environmental Policy Statement is implemented through Maersk FPSOs' EMS, which is an integral part of Maersk FPSOs' Global Business Management System (GBMS).

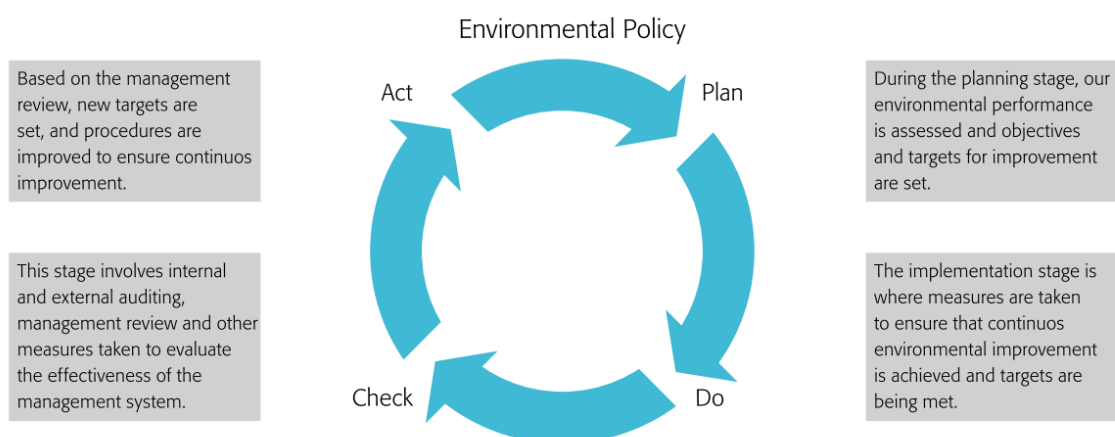
Maersk FPSOs has developed and implemented an EMS for its operations, which is certified to the ISO 14001:2004 standard. Initially Maersk FPSOs were certified with ISO 14001 in August 2006 by Lloyd's Register Quality Assurance Ltd (LRQA), and re-certified in January 2012, valid until January 2015.

Representatives of NSPCL and external environmental advisors have undertaken numerous visits to the NSP FPSO and the shore base to conduct training sessions and internal environmental audits. During these visits we witnessed strong commitment and a positive attitude from all of the employees.



The Environmental Management Principles

The overall purpose of our EMS is to ensure a systematic approach to environmental improvements and compliance, which is achieved through the PDCA (Plan, Do, Check, Act) cycle.



The Plan-Do-Check-Act cycle

As part of the management system, we set objectives and targets for environmental improvements on a continuous basis, and we implement best available technology/best environmental practice where technically and economically feasible. We measure environmental performance through various means, including local and corporate metrics, which help to implement operational procedures to ensure our targets are met. In addition, Maersk FPSOs has established voluntary Green Teams offshore which helps to improve environmental awareness and ensure that activities are conducted with a high regard to the marine environment.

Key Elements of NSPCL's EMS

NSPCL uses established procedures for ensuring compliance and improving environmental performance through a number of key elements of the EMS including:

- Development and maintenance of the Environmental Aspects and Impacts Register to address the risks posed to the environment by operations on the NSP FPSO.
- The Environmental Management Manual which defines responsibilities and directs personnel to key procedures which form part of the overall Management System, as well as supporting procedures contained within other management manuals.
- Monitoring, internal monthly and annual review of environmental performance.
- Implementation of corrective actions to facilitate the overall goal of continuous improvement. All emissions and discharges, including incident reports and near misses, are systematically recorded through use of local and corporate metrics and corrective actions are tracked.
- Periodic management reviews to define, set and assess environmental objectives and ensure their continued relevance in the light of changing circumstances. The Annual Management Review ensures that these objectives are translated into plans and programmes to ensure successful implementation.
- Our objectives and targets for improving environmental performance are also facilitated via voluntary led offshore Green Teams.

To support continuous and effective improvement, Maersk FPSOs has developed web systems that incorporate these procedures into the governance and management of its activities. These are:

SIRIUS – this is a graphical web-based integrated QM/HSE management system which provides links between processes, organisation, compliance and technical manuals. This web based management system affords a facility for providing visibility of process flows, procedural documents and roles and responsibilities. It ensures that all employees have access to safe and efficient work processes that are in compliance with relevant quality and legal requirements.

Compliance standards are linked to the process where relevant, demonstrating how Maersk FPSOs complies with the requirements of the standards. All EMS procedures are systematically managed to ensure that they are up-to-date, accurate and traceable.

SYNERGI - this database is used for tracking all incidents, accidents and near misses, including environmental incidents, and it is used as a management tool for control and analysis of corrective actions. It also provides a transparent and auditable trail of environmental indicators used as part of performance reporting and monitoring.

Sustainability Reporting

NSPCL, through Maersk FPSOs, reports its resource and energy consumption and emissions on an annual basis to the A.P.Møller-Maersk Group. Maersk FPSOs also publishes its own Sustainability Report, in which states, "We support a precautionary

approach to environmental changes; undertake initiatives to promote greater environmental responsibility; and encourage development and diffusion of environmentally friendly technologies. We manage environmental aspects systematically and continuously improve our performance by setting objectives, training personnel and monitoring environmental impacts.”

Environmental Aspects

Environmental aspects are those elements of our activities that can interact with the environment, i.e. the definite or potential causes of environmental impact. Although the actual impacts on the environment cannot be controlled, the aspects of the activities can be. Maersk FPSOs has implemented and maintained a process flow to identify the environmental aspects of its activities, products and services that it can control or influence.

The most significant environmental aspects from our activities at the NSP FPSO have been identified and listed below:

- **Discharge of water** originating from the reservoir, produced when extracting the oil (produced water discharge).
- **Chemical use and discharges** during process and utilities operation.
- **Air emissions** generated during combustion of fuel gas and diesel for the power generation, gas compression, pumping oil onshore and the flaring of excess gas.
- **Waste generation** disposal from operational and domestic activities.

The performance of the NSP FPSO's operation with respect to the significant aspects of our activities is summarised in the sections below. These data have been reported to the Regulator via the UK Environmental Emissions Monitoring System (EEMS).

Managing emissions and discharges

Oil in Produced Water discharges

Discharges of oil in produced water are regulated under the Offshore Petroleum Activities (Oil Pollution Prevention and Control) Regulations 2005 (as amended) (OPPC Regulations). The conditions of the NSP OPPC permit require that the concentration of dispersed oil in produced water (OIW) discharged shall not exceed 30 mg/l averaged over a calendar month and 100 mg/l at any time.

NSPCL aims to maintain the total quantity of oil discharged in produced water and the average concentration of oil (mg/l) discharged to sea at 10% below the permit limits. In 2013, the concentration of oil discharged in produced water was in compliance with the monthly limit (Figure 1). However, non-compliance was recorded on 15th May 2013 during restart operations after period of shutdown, when 100 mg/l was exceeded for a period of four hours. Overall for the past three years there was decrease of the total quantities of produced water (Figure 2). Oil in water discharged decreased in 2012 and 2013 were lower than in 2011 due to the production shutdowns.

During normal operations at the NSP FPSO, slops tanks with oil skimming capabilities are utilised as a final stage of treatment for produced water and it is this polishing process that routinely results in low concentrations of oil in water.

The production shutdown which occurred from 23rd December 2012 to 11th May 2013 resulted in zero produced water discharges during these months (Figure 1). In addition, a shutdown during permanent repair of the umbilical between 6th October and 19th November 2013 resulted in reduced produced water discharges for these two months.

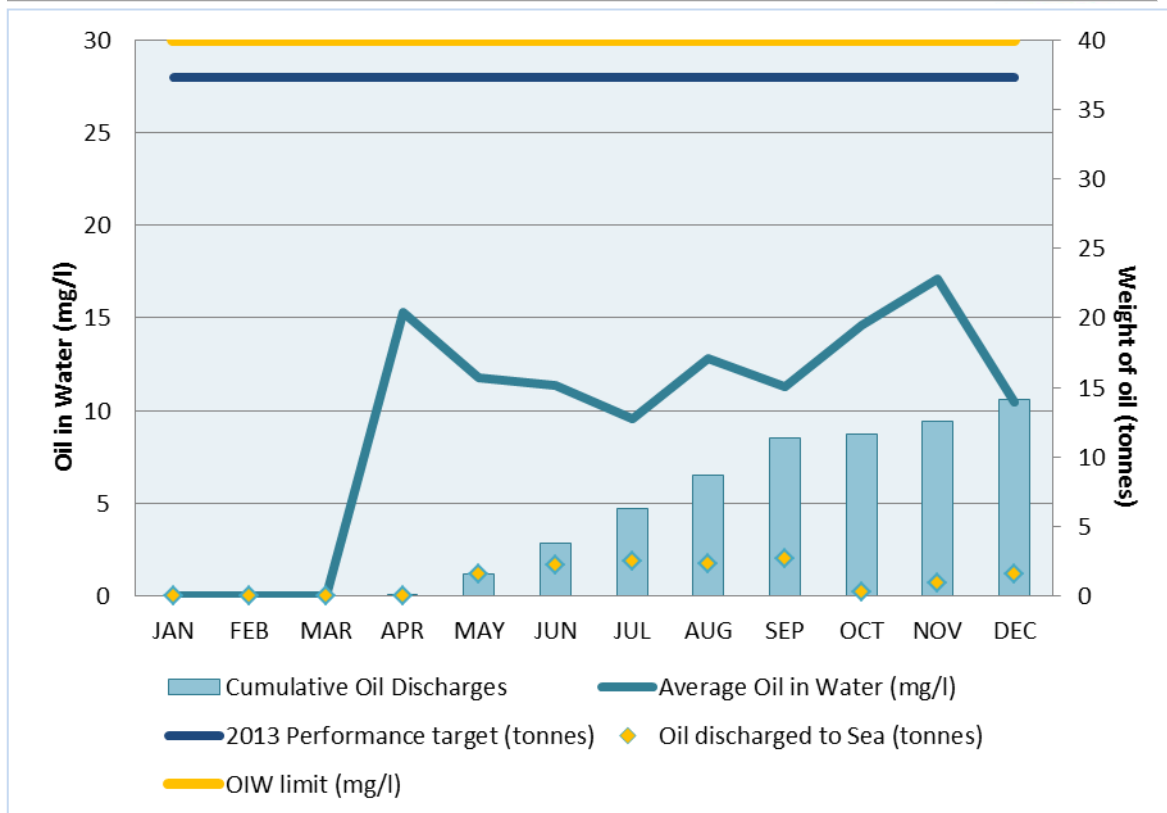


Figure 1 – Total Oil in produced water and mass of oil discharged to sea from the NSP FPSO in 2013 against the performance target.

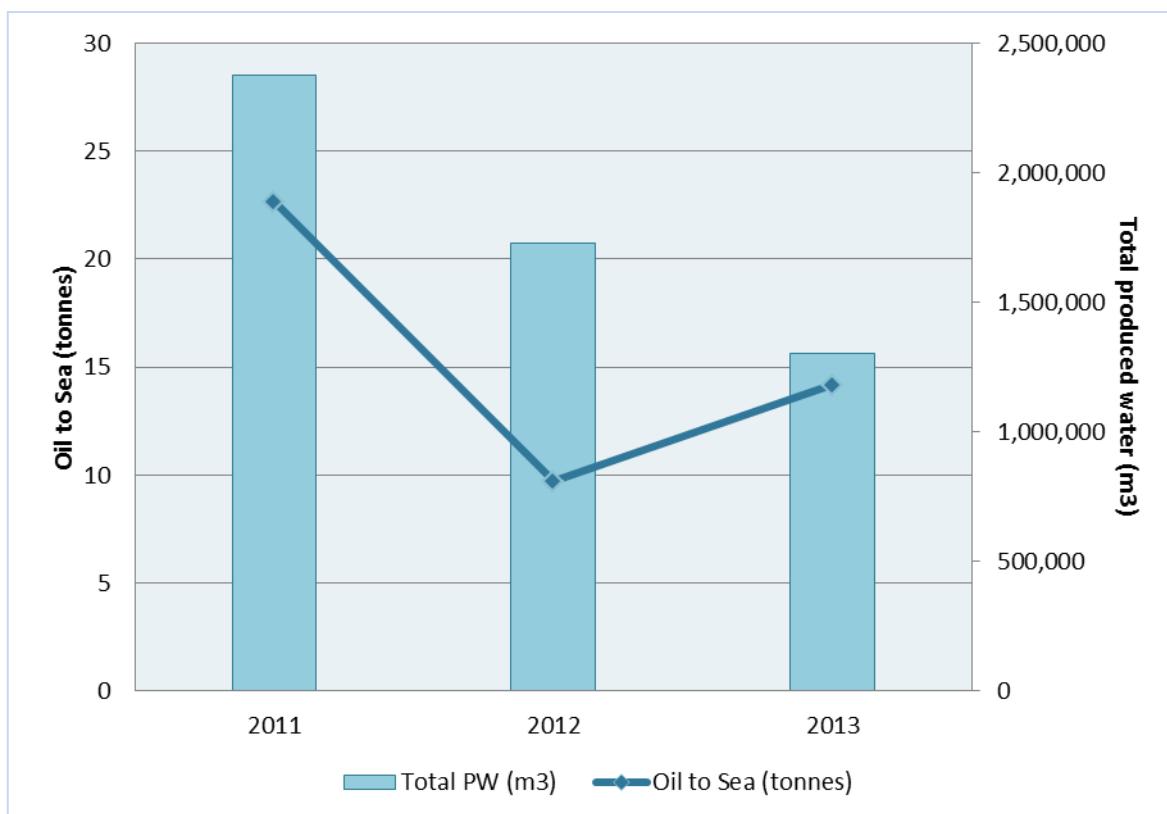


Figure 2 - Annual comparison of total oil to sea and produced water discharges for the last three years.

Chemical management

Many chemical products are used onboard the NSP FPSO for cleaning and maintenance purposes, and throughout work processes. They serve to improve production processes, for corrosion inhibition, scale formation inhibition and aiding the separation of oil and water.

NSPCL as part of Maersk FPSOs has a unique and strong focus on the safe use of chemicals. Our chemical management system is a key element of our approach and the offshore employees are regularly trained in safe handling of chemicals and correct use of the system. We perform chemical inspections as part of our chemical audit programme.

The use and discharge of chemicals at NSP operations are governed by the Offshore Chemicals Regulations 2002 (as amended) (OCR). In 2013, 122.62 tonnes of offshore chemicals were utilised for production, 22% of which were discharged to sea in line with the NSP's OCR permit. There were no non-conformances during 2013.

Classification and risk ranking of chemicals is undertaken under the Offshore Chemical Notification Scheme (OCNS). This scheme assigns a substance a risk/hazard category, using the Chemical Hazard and Risk Management (CHARM) model, based on the varying levels of hazard/risk and assigns a colour bands to the products, Gold (lowest hazard quotient) to Purple (highest hazard quotient). Other products not applicable to the CHARM model (i.e. inorganic substances, hydraulic fluids or chemicals used only in pipelines) are assigned an OCNS grouping, A - E.

| Chemical Ranking | Total Use (kg) | Total Discharge (kg) |
|-----------------------------|----------------|----------------------|
| C | 19,870 | 19,870 |
| E | 51,696 | 0 |
| Silver | 600 | 0 |
| Gold | 50,450 | 6,885 |
| Total | 122,617 | 26,756 |
| Proportion Discharge | | 22% |

Table 1 Chemical usage and discharge from the NSP FPSO during 2013 according to Offshore Chemical Notification Scheme (OCNS) Categories

It should be noted that, most of the chemicals used and discharged during 2012 were at the lowest risk, being CHARM (Gold) and non-CHARM chemical categories (E) (Table 1).

The NSP FPSO in 2013 utilised two chemicals that carry substitution warnings, a corrosion inhibitor and a utility chemical. A total of 17,252 tonnes of these chemicals were used and 4,994 tonnes were discharged during 2013. Offshore field trials were undertaken during 2013 to replace those chemicals and utility chemical was successfully replaced with greener alternative in 2013. Trials with a corrosion inhibitor that were carried out in 2013 were unsuccessful and continued work to replace these chemical with green alternative is scheduled during 2014.

Hydrocarbon and Chemical Spills to Sea

All unplanned releases of chemicals or hydrocarbons to sea must be notified to DECC via the UK Oil Portal PON1 system. NSP have robust procedures for investigating and reporting spills no matter what the size.

On 5th November 2013, a PON1 Notification of a release of approximately 480 ml of hydraulic fluid was submitted to the authorities. The uncontrolled release was due to the ROV manipulator coming into contact with a hydraulic hose, after becoming dislodged during FPSO heave. No one was hurt during the incident. Investigations were completed to determine the cause of the incident.

Air emissions

Atmospheric emissions from our offshore activities arise mostly from power generation and flaring of associated gas, which is an integral part of the FPSO safety procedure.

The main composition of these emissions is carbon dioxide (CO₂) with proportionately smaller emissions produced from nitrogen oxide (NO_x), nitrous oxide (N₂O), sulphur dioxide (SO₂), carbon monoxide (CO), methane (CH₄) and volatile organic compounds (VOCs).

CO₂ Emissions

In response to the Kyoto Protocol and in an attempt to lower carbon emissions throughout the EU, the Greenhouse Gas Emissions Trading Scheme 2005 has implemented a cap on the amount of CO₂ any given industry can emit on an annual basis. The annual free allocation granted to the NSP FPSO for 2013 was 51,466 tonnes of CO₂. Any emissions above this would require the purchase of carbon credits.

The 2013 verified full amount of CO₂ emissions totalled 51,463 tonnes (Figure 3 below). These emissions were from the combustion of diesel imported to site and natural gas produced on site (Figure 3). A proportion of gas that cannot be otherwise utilised or exported must be flared to maintain a safe environment on the NSP FPSO.

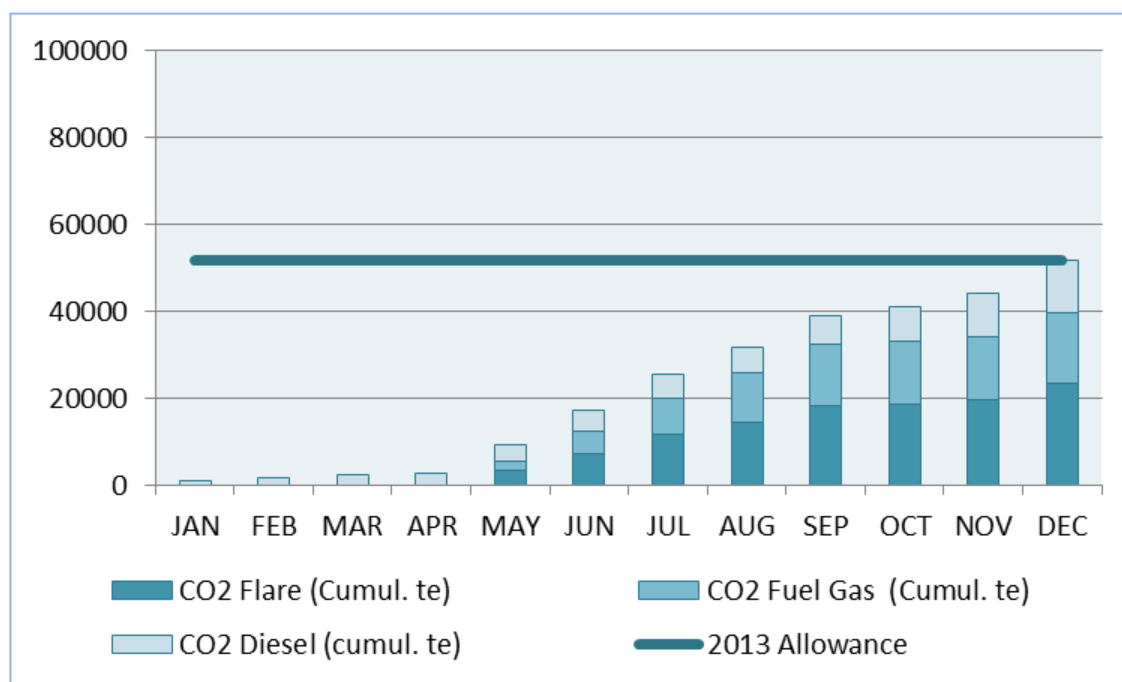


Figure 3 – Cumulative CO₂ emissions by fuel type (as proportion of 51,463 tonnes emitted), NSP, 2013.



Flaring

For 2013 the *Consent to Flare Gas* issued by DECC required that the daily average flare rate did not exceed 35.14 tonnes, a reduction on previous years. As can be seen from the Figure 4, flare emissions were within these limits for 2013.

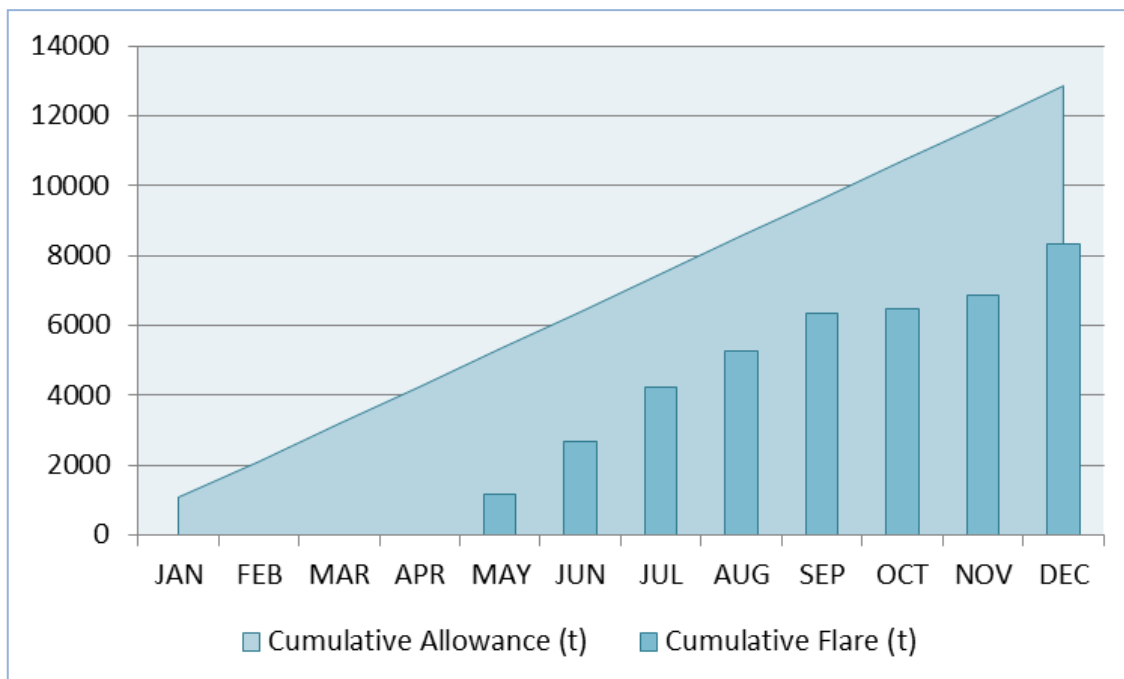


Figure 4 - Cumulative Flared Gas Mass (tonnes) for NSP, 2013.

Waste Generation and Disposal

NSPCL uses a well-established waste management hierarchy of maximising the reduction, reuse, recycle and recover of waste, before its disposal. The amount of waste sent to landfill must be therefore lowered in order to reduce overall environmental impacts.

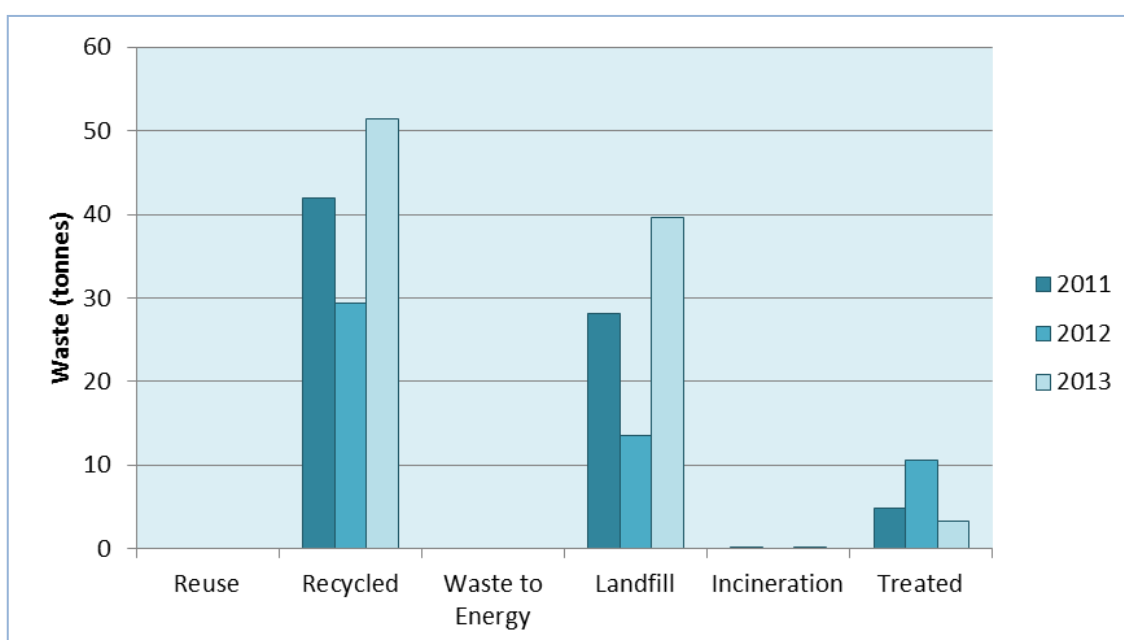


Figure 5 - Yearly comparison of waste quantities (tonnes) by disposal method for NSP, 2011-2013.

Figure 5 compares the quantities of waste disposed of by different methods from 2011 to 2013. Overall in 2013, 54% of waste was recycled and 42% went to landfill. There was an increase of waste sent to landfill of 16.6% compared to the previous year.

Waste recycling is implemented as part of our waste management plan also in our onshore base in Aberdeen. The total recycled waste for 2013 is 50% with the 50% being landfilled. General waste has generated 0.01012 KWh of electricity in 2013.



Environmental Performance 2013

A number of objectives and targets are set each year to achieve and demonstrate continual improvement in the environmental performance of the NSP FPSO. An overview of the status of our goals and objectives during 2013 is given in the table below.

| Issue | NSPCL 2013 Objective | 2013 Internal Target | Status |
|---|---|--|--------|
| Environmental performance | Ensure compliance with relevant environmental legislative requirements | Full compliance with permits and consents | |
| | Take all reasonable and practical steps to prevent pollution | Ensure implementation of Hose Management Plan to minimise the risk of spills | |
| | | Identify Environmentally Critical Equipment (ECE) on installation and create and maintain ECE register | |
| | Systematically identify and manage environmental risks through fully functioning EMS which aims to drive continual environmental improvement | Maintenance of the certified EMS to ISO 14001:2004 across both onshore and offshore units and within scope | |
| | | Ensure all required environmental training and awareness are conducted | |
| | Deliver robust environmental audit programme | Conduct environmental audits of the offshore and onshore unit, in accordance with the audit plan. | |
| Atmospheric emissions | Greenhouse gas (GHG) emissions in line with permit conditions and operational demands | Flaring shall not exceed average daily rate above 35.14 tonnes. | |
| | | Annual allowance of 54,571 CO ₂ tonne equivalents (te) from safety flaring. | |
| Discharges to sea - produced water | Continue to monitor, evaluate and prioritise measures to improve the management of oil in produced water discharges and where possible reduce oil discharges in line with permit conditions and operational demands | OPPC target of oil discharged to sea 37.3 tonnes | |
| | | Oil in water (OIW) shall be managed closely with internal target of 25.5 mg/l | |
| Discharges to sea - chemical management | Reduce the use and discharge of chemicals with substitution (SUB) warnings | Target replacement of the two remaining chemicals with SUB warnings by the end of the year | |
| Waste management | Continue to promote waste management practices in line with the top principles of the waste management hierarchy | Continue to maintain >50% recycling rate for the offshore unit | |

Key :



Completed/achieved

Work procedure underway, target not achieved

Incomplete/not achieved

Although a number of improvements were made in certain areas, not all goals and objectives were achieved during 2013. This was mainly due to the two shutdowns of

production during 2013, and inconclusive results from offshore chemical trials for replacement of the corrosion inhibitor with substitution warnings. Also the Green Teams were quieter throughout 2013. One the objectives for 2014 will be to reinvigorate them, as their influence on the waste management plan is recognised.

Future Goals and Challenges for 2014

In 2014, our efforts are focused on achieving the following environmental objectives and targets:

| Issue | NSPCL 2014 Objective | 2014 Internal Target |
|---|---|--|
| Environmental performance | Ensure compliance with relevant environmental legislative requirements | Full compliance with permits and consents. |
| | Continue to take all reasonable and practical steps to prevent pollution | Ensure implementation of Hose Management Plan to minimise the risk of spills. Identify Environmentally Critical Equipment (ECE) on installation and create and maintain ECE register. |
| | Systematically identify and manage environmental risks through fully functioning EMS which aims to drive continual environmental improvement | Continued maintenance of the certified EMS to ISO 14001:2004 across both onshore and offshore units and within scope. Ensure any required environmental training is progressed. |
| | Deliver robust environmental audit programme | Conduct environmental audits of the offshore and onshore unit in accordance with the NSP annual audit plan. |
| Atmospheric emissions | Greenhouse gas (GHG) emissions in line with permit conditions and operational demands | Flaring shall not exceed average daily rate above 26.17 tonnes. |
| | | Annual allowance of 25,276 CO ₂ tonne equivalents (te). |
| Discharges to sea - produced water | Continue to monitor, evaluate and prioritise measures to improve the management of oil in produced water discharges and where possible reduce oil discharges in line with permit conditions and operational demands | OPPC target of oil discharged to sea 21.021 tonnes. |
| | | Oil in water (OIW) shall be managed closely with internal target of 11 mg/l. |
| Discharges to sea - chemical management | Reduce the use and discharge of chemicals with substitution (SUB) warnings | Target replacement of the one remaining chemical with SUB warnings by the end of the year. |
| Waste management | Continue to promote waste management practices in line with the top principles of the waste management hierarchy | Continue to maintain >50% recycling rate for the offshore unit. Conduct a review of the increased waste production and ways of reducing it. |
| | | Reinvigorate the activity of Green Teams. |