# Tullow Oil SK Limited

## ENVIRONMENTAL MANAGEMENT SYSTEM
## PUBLIC STATEMENT FOR 2015 UK OPERATIONS

## MAY 2016

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**ABBREVIATIONS**

| | |
|---|---|
| ALARP | As low as reasonably practicable |
| BU | Business Unit |
| CH4 | Methane |
| CMS | Caister Murdoch System |
| CO | Carbon Monoxide |
| CO2 | Carbon Dioxide |
| COMAH | Control of major accident hazards |
| DECC | Department of Energy and Climate Change |
| EEMS | Environmental Emissions Monitoring System |
| EHS | Environmental Health and Safety |
| ESMP | Environmental and Social Management Plan |
| GVP | pharmacovigilance practices |
| IADC | International Association of Drilling Contractors |
| LTI | Lost Time Incident |
| MS | Management System |
| N2O | Nitrous dioxide |
| NOx | Oxides of Nitrogen |
| OCNS | Offshore Chemical Notification Scheme |
| OGP | The International Association of Oil & Gas Producers |
| OSPAR | Oslo Paris Convention |
| plc | Public limited company |
| SK | Schooner and Ketch |
| SO2 | Sulphur dioxide |
| SUB | Candidate for substitution |
| UK | United Kingdom |
| UKCS | United Kingdom Continental Shelf |
| VOC | Volatile Organic Compounds |
| YTD | Year to Date |

# 1. Introduction

Under the OSPAR Recommendation 2003/5, the Department of Energy and Climate Change (DECC) require that all existing UKCS oil and gas operators undertaking offshore operations during 2015 must prepare an annual statement of their environmental performance, covering that calendar year, and make that statement available to the public. This document represents Tullow Oil SK Limited (Tullow) annual public environmental statement for 2015 in relation to UKCS OSPAR reporting.

# 2. Tullow's Background

Tullow Oil PLC is a global oil and gas exploration and production company with its headquarters in London, UK. Its primary focus is in African and Atlantic margin operations, with operations in 22 countries worldwide.

In the UK, Tullow's assets lie in the Southern North Sea Gas Basin. These assets have ceased production and are currently in the decommissioning phase.

# 3. The Environmental Management System

Tullow is committed to the delivery of a consistent and high standard of environmental, health, safety and social performance throughout the planning and undertaking of all of its operations. Tullow senior management are committed to this with its Safe and Sustainable Operations Policy approved by the Board and signed by our CEO. (Figure 3-1)

As a responsible operator, we are committed to:

- Managing our environmental and social impacts;
- Keeping our people and our assets safe and secure;
- Maintaining our asset integrity and being prepared for major emergencies;
- Ensuring our high standards are upheld throughout our supply chain;
- Protecting the human rights of the communities we operate among; and
- Providing two-way communication with people about the extent of our activities and how they might affect them.

Tullow has developed and implemented an Integrated Management System (IMS) that sets out key business standards which are maintained across the company. Our business model addresses the fundamentals that we must have in place to manage our risks and help us deliver our strategy. These include strong and effective risk management, high standards of governance, transparency and anti-corruption, developing a multi- disciplined and diverse entrepreneurial team and making a positive and lasting contribution where we operate.

One of these standards is Non Technical Risk (T-SEA-STD-0001) which sets out the mandatory framework through which the business shall consistently and proactively identify, assess, mitigate, and monitor social and environmental impacts, and stakeholder issues. This enables Tullow to comply with legislation, and other relevant standards, to manage environmental risks effectively and to demonstrate continual improvement.

Tullow regularly reviews its policies, procedures and management systems that support the highest standards of governance and corporate responsibility. The Group has a framework for the consistent application of the standards that all Tullow operations must comply with. This is safeguarded through corporate governance processes together with monitoring and oversight by the Board. Benchmarking is achieved through Internal Audit reviews.

Tullow is certified to the international standard for environmental management systems – ISO 14001 (see Figure 3.2 below).

**Figure 3.1: Tullow's Safe and Sustainable Operations Policy**

TULLOW OIL PLC
POLICY STATEMENT

# Safe and Sustainable Operations

Our goal is to create a working environment where we cause no harm to people, we minimise our environmental and negative social impacts, and we seek to optimize the shared benefits generated through our activities. Everyone who works for, or on behalf of, Tullow is responsible for ensuring that the expectations set out in this Policy are fully met in all aspects of our business.

To achieve these we will:

- Always comply with the law or Tullow Standards, whichever sets higher expectations, and hold our contractors to the same;
- Systematically identify and assess environmental, health, safety, security and social risks and manage them proactively throughout the project life cycle;
- Set goals and targets, and measure performance against them to continuously improve our performance;
- Invest in building a competent and capable organisation, supported by strong, visible safety and sustainability leadership;
- Not explore nor exploit for oil in World Heritage Sites and always mitigate the potential for operations to impact areas of natural and cultural value prior to undertaking any activity;
- Design, build and maintain safe working conditions and take responsibility for the health and wellbeing of our staff and contractors;
- Aim to create positive, tangible and sustainable contributions to the economic and social development of the communities and countries where we operate; and
- Communicate openly and respect the opinions of those who may be affected by our operations.

**Safe and sustainable operations in all company activities is a core value. Everyone in Tullow or working on our behalf is empowered to stop any activity they regard to be in conflict with this Policy.**

Aidan Heavey
Chief Executive Officer – Tullow Oil plc
November 2015

T-HSS-POL-0001 Version 2

**Figure 3.2: Tullow's ISO 14001 certification**

Lloyd's Register LRQA

## CERTIFICATE OF APPROVAL

This is to certify that the Environmental Management System of:

**Tullow Group Services Limited**
**9 Chiswick Park, Chiswick, London**
**United Kingdom**

has been approved by Lloyd's Register Quality Assurance
to the following Environmental Management System Standard:

**ISO 14001: 2004**

The Environmental Management System is applicable to:

**Corporate governance of the exploration, development and production of oil and gas.**

This certificate is valid only in association with the certificate schedule bearing the same number on which the locations applicable to this approval are listed.

Approval
Certificate No: LRQ 4000558

Original Approval: 21 May 2003
Current Certificate: 1 June 2015
Certificate Expiry: 31 May 2018

Issued by: Lloyd's Register Quality Assurance Limited

UKAS MANAGEMENT SYSTEMS

# 4. 2015 Environmental Reporting

## 4.1 UKCS OFFSHORE PRODUCTION OPERATIONS

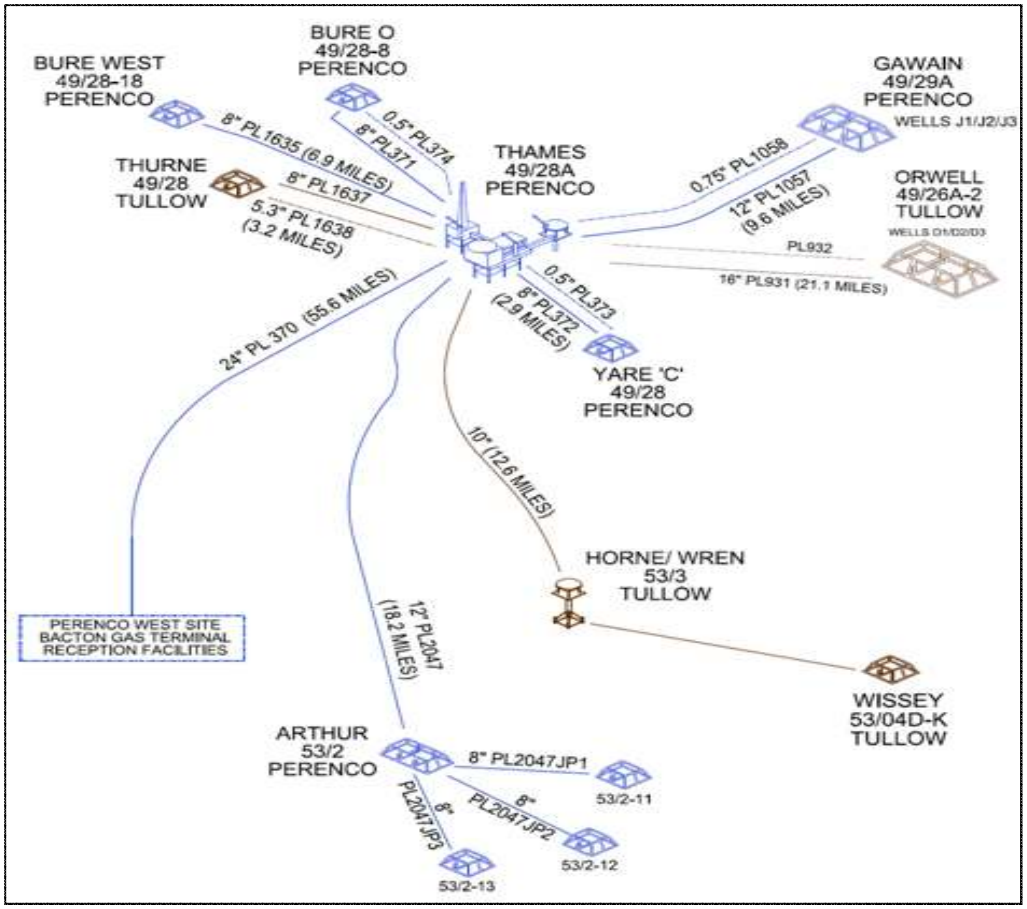
Both the Schooner A and Ketch A platforms were producing in 2014. On the 10th October 2014, operatorship of the Schooner A Platform and the Ketch A Platform transferred from Tullow Oil SK Limited to Faroe Petroleum.

The Thames Area Development consisted of three bridge-linked platforms which together form a natural gas production and compression installation hub, located approximately 80 km east north east of Bacton Terminal off the coast of Norfolk in the Southern North Sea (Figure 4.1).

The Horne, Wren and Wissey reservoirs have depleted to a stage where none of the existing wells sustain production, and the Thurne and Orwell pipelines are shut in and depressurised, with a DECC approved Cessation of Production is in place.

As per the DECC approved Decommissioning Programme TOSK plans to decommission the Horne & Wren, Wissey and Orwell assets, and all associated wells and infrastructure (Figure 1.1; TOSK assets identified in brown and Perenco in blue).

**Figure 4.1 Thames Area Development (TOSK assets identified in brown and Perenco in blue)**



A summary of the decommissioning activities is shown in Table 4.1

**Table 4.1: Planned Decommissioning**

| Phase | Objective | Scheduled Completion |
|---|---|---|
| 1 | Achieve hydrocarbon free status | Completed May 2015 |
| 2 | • P&A Horne & Wren Wells, remove, dismantle and dispose of H&W platform | Q3 / Q4, 2016 |
| Remaining Decommissioning Work to comprise (Phasing / timing subject to ongoing review) | | |
| 3 | • P&A Wissey well, remove subsea tree and wellhead protection structure<br>• P&A 2 E&A wells (Orwell & Cameron)<br>• P&A remaining 7 subsea wells (production and mudline suspended E&A) | Q3, 2017 |
| 4 | Removal of Orwell wellhead protection structure, subsea clearance and surveys | Q3, 2017 |

Phase 1 activities, undertaken during 2015 included

- Subsea well inspections
- Diving operations;
- Well isolations; and
- Pipeline flushing and severance.

Decommissioning operations involved Bibby Offshore's, Topaz Dive Support Vessel and the SeaJacks Kraken (Figure 4.2), a jack up barge with four legs that can be jacked down to the seabed and will be employed as a work platform.

**Figure 4.2: Seajacks Kraken Bridge-linked to the Horne & Wren Platform**

## 4.2 SUMMARY OF REPORTABLE EMISSIONS

Reportable emissions from Phase 1 Decommissioning operations are provided in Table 4.2.

**Table 4.2: Tullow's 2015 UKCS Reportable Emissions**

| Environmental Indicator | Unit | Horne & Wren | Orwell | Wissey |
|---|---|---|---|---|
| **Gas/Oil Production** | | | | |
| Production Pipelines | - | 0 | 0 | 0 |
| **Environmental Incidents** | | | | |
| Chemical release | No. incidents | 0 | 0 | 0 |
| Hydrocarbon releases | No. incidents | 1 | 1 | 0 |
| **Atmospheric Emissions*** | | | | |
| Fuel Consumption (diesel) | Tonnes | 863.16 | 13.16 | 13.16 |
| Flaring (natural gas) | Tonnes | 0 | 0 | 0 |
| $CO_2$ | Tonnes | 2,762.11 | 42.112 | 42.112 |
| CO | Tonnes | 13.55 | 0.207 | 0.207 |
| $NO_x$ | Tonnes | 51.27 | 0.782 | 0.782 |
| $N_2O$ | Tonnes | 0.19 | 0.003 | 0.003 |
| $SO_2$ | Tonnes | 3.45 | 0.053 | 0.053 |
| $CH_4$ | Tonnes | 0.16 | 0.002 | 0.002 |

| Environmental Indicator | Unit | Horne & Wren | Orwell | Wissey |
|---|---|---|---|---|
| VOC | Tonnes | 1.73 | 0.026 | 0.026 |
| **Chemical Usage and Discharges**** | | | | |
| Gold (use / discharge) | Kilogrammes | 0.255 / 0.252 | 0.255 / 0.252 | 0.255 / 0.252 |
| Silver (use / discharge) | Kilogrammes | 0.267 / 0.267 | 0.267 / 0.267 | 0.267 / 0.267 |
| SUB** *(use / discharge) | Kilogrammes | 0.267 / 0.267 | 0.267 / 0.267 | 0.267 / 0.267 |
| A (use / discharge) | Kilogrammes | 0 / 0 | 0 / 0 | 0 / 0 |
| B (use / discharge) | Kilogrammes | 0 / 0 | 0 / 0 | 0 / 0 |
| C (use / discharge) | Kilogrammes | 0 / 0 | 0 / 0 | 0 / 0 |
| D (use / discharge) | Kilogrammes | 0 / 7,350.7 | 0 / 7,350.7 | 0 / 7,350.7 |
| E (use / discharge) | Kilogrammes | 15,773.32 / 16,253.36 | 15,773.32 / 16,253.36 | 15,773.32 / 16,253.36 |
| **OPPC Pipeline Discharges** | | | | |
| Oil on fluids | Tonnes | 0.117 | 0.095 | 0 |

| **Waste** | | | | |
|---|---|---|---|---|
| Special (Group I)<br>Hazardous | Tonnes | 0 - Recycling<br>0 - Treatment | 0 - Recycling<br>0 – Incineration | 0 - Recycling<br>0 – Incineration |
| General (Group II)<br>Non-hazardous | Tonnes | 0.49 – Recycling<br>0.1325 - Landfill<br>55.84 – Grey water to sea | 0.49 - Recycling<br>0.1325 - Landfill<br>55.84 – Grey water to sea | 0.49 - Recycled<br>0.1325 – Landfill<br>55.84 – Grey water to sea |
| Other (Group III) | Tonnes | 0.0 | 0.0 | 0.0 |

**Notes:**

*Atmospheric emissions have been calculated using Oil and Gas UK emission factors, and the Emissions Factors for Gas Venting (natural gas). Data as reported in the Environmental Emissions Monitoring System (EEMS).

**The chemical returns cover the period 01.01.15 until 31.12.15.

***The SUB chemical figures are a sum of all chemicals (e.g. OCNS A, B, C, D, E, and Gold) assigned with a 'SUB' warning.

## 4.3PROJECT EHS OBJECTIVES AND TARGETS

Corporately Tullow set annual Safe and Sustainable Operations targets and performance monitoring metrics, which are tailored to become Business Unit specifics that reflect the particular set of challenges associated with that particular operation.

Tullow has the overall goal of decommissioning the assets in the most expeditious and economical way possible commensurate with best oilfield practice and prudent risk management. Within this context, the overall EHS goal is that all risks to personnel, the environment and the assets are identified and eliminated or minimised to ALARP levels.

Specific EHS objectives for the Thames Decommissioning project, include

- EHS performance will not be compromised by commercial or schedule pressures;
- All relevant EHS regulations will be complied with and permits, licences and consents will be obtained in a timely manner;
- The Safe and Sustainable Operations Policy and EHS goals will be communicated to Project personnel and all contractors to ensure they understand their EHS responsibilities and accountabilities and that they demonstrate visible EHS leadership;
- Appropriately consult and inform statutory and non-statutory groups and individuals;
- Identify, understand and manage all hazards and risks to personnel, the environment and assets to ALARP levels;
- Ensure that Contractors exhibit the required behaviors such that their work is carried out safely and without risks to health or the environment;
- Contractors and key suppliers will be required to have acceptable project specific EHS plans and management systems in place prior to commencing work;
- Build a positive behavior based EHS culture that focuses on open reporting, positive feedback, values learning and the prevention of incidents;
- No unplanned discharges and emissions to the environment;
- Minimise planned discharges and emissions through all phases of the project;
- All solid wastes to be disposed of in an approved and auditable manner;

- All commitments made in the Environmental Statement/PON notifications will be met.

In complying with these objectives the Project's intention is to challenge the Contractors to strive for high levels of inherent safety and environmental performance. An 'EHS by Design' principle shall be applied throughout the project using the following risk reduction hierarchy:

- Remove the risk (e.g. through design, use differing (non-hazardous) materials, etc.);
- Reduce the risk through an engineering solution;
- Reduce risks through procedural control (including training and competency arrangements);
- Recommend personal protective equipment solutions.

## 4.4 KEY PERFORMANCE INDICATORS (KPI)

To verify that the above objectives are met, EHS performance will be monitored against selected Key Performance Indicators (KPI's) (Table 4.3).

**Table 4.3 EHS Key Performance Indicators**

| KPI | Definition | Target |
|---|---|---|
| LTI (Includes fatalities) | Lost time incidents that involve a person being unfit to perform any work on any day after the occurrence of the injury or occupational illness. 'Any day' includes rest days, weekend days, leave days, public holidays or days after ceasing employment. | 0 |
| Recordable Incidents | This includes all types of injury listed in Appendix 2 of the Tullow Incident Management Reporting Procedure (T-EHS-PRO-008). | 0 |
| Spills | An uncontrolled release of a pollutant. | • No spills > Level 1 on harm index<br>• No spills > 150 litres |
| Loss of Process Containment (LOPC) | Defined in the OGP Process safety Guidance document: www.ogp.org.uk/pubs/456.pdf | • 0 – Tier 1 incident<br>• 0 – Tier 2 incident |
| Fines | Financial penalties imposed by Regulators | • No fines |