OSPAR Public Statement 2017



Doc Ref: EOG-MS-EHS-3-42



Document Control Page

Client:	EOG Resources United Kingdom Limited
Report Title:	EOGUKL OSPAR Public Statement 2017
Date:	May 2018
Orbis Document Ref:	EOG-MS-EHS-3-42
Prepared By:	EOG Resources United Kingdom Limited (in conjunction with Orbis Energy Limited)
	Andrews House College Road Guildford
	Surrey, GU1 4QB
	United Kingdom

Revision Record:					
DATE	REV NO.	DESCRIPTION	PREPARED	CHECKED	APPROVED
30/05/18	A0	Draft for Internal Review	СР	JG	JG
31/05/18	A1	Draft for Client Review	CP / JG	JG	SH
31/05/18	C0	For Issue	CP / JG	JG	SH



Table of Contents

1	Intr	Introduction1		
2	EOG	EOG Resources United Kingdom Limited1		
3	Env	ironmental Management System	.1	
4	Ove	rview of 2017 Activities	.3	
5	Sun	nmary of 2017 Environmental Performance	.4	
	5.1	Conwy Infrastructure	.4	
	5.2	Accidental Releases	.4	
6	Pro	gress against 2017 EMS Objectives and Targets	5	
7	Proposed 2018 Objectives and Targets7			
A	Appendix A: Corporate Major Accident Prevention Policy9			
A	Appendix B: EHS Policy11			



Abbreviations

СМАРР	Corporate Major Accident Prevention Policy	
EEMS	Environmental and Emissions Monitoring System	
EHS	Environmental, Health and Safety	
EMS	Environmental Management System	
ENI	ENI UK Limited	
EOGUKL	EOG Resources United Kingdom Limited's	
ePON1	Electronic Petroleum Operations Notice 1	
NPAI	Not Permanently Attended Installation	
ΟΡΕΡ	Oil Pollution Emergency Plan	
OPRED	Offshore Petroleum Regulator for Environment & Decommissioning	
OSPAR	Oslo and Paris Commission	
RIDDOR	Reporting of Injuries, Diseases and Dangerous Occurrences Regulations	
SUB	Substitution	
UKCS	United Kingdom Continental Shelf	

1				
0	eog	reso	urc	es



1 Introduction

Under OSPAR Recommendation 2003/5 to Promote the Use and Implementation of Environmental Management Systems (EMS) by the Offshore Petroleum Regulator for Environment & Decommissioning (OPRED) requires all operators of offshore installations to produce a Public Statement to report their environmental performance. These Public Statements must be prepared on an annual basis (covering offshore installation activities carried out during the previous calendar year), made available to the public and copied to OPRED by 1st June of each year.

In accordance with this requirement, this document reports on the environmental performance of EOG Resources United Kingdom Limited's (hereafter referred to as EOGUKL) operated offshore activities in the United Kingdom Continental Shelf (UKCS) during 2017.

2 EOG Resources United Kingdom Limited

EOGUKL is the UK subsidiary of EOG Resources Inc., one of the largest independent (non-integrated) oil and natural gas companies in the United States, with substantial proven reserves in the United States, offshore Trinidad, the United Kingdom and China.

The UK operation is headquartered in Guildford. Further information on the company is available from: <u>http://www.eogresources.com</u>.

EOGUKL is the sole licence operator for Block 110/12a (Licence No. P.1476) in the East Irish Sea. EOGUKL holds 100 per cent equity of this licence block. Licence P.1476 is the only EOGUKL operated licence held during 2017.

Block 110/12a contains the Conwy oil field, which EOGUKL began to develop in 2010 with the installation of a single Not Permanently Attended Installation (NPAI) occurring in May 2012. The Conwy NPAI is tied back to the ENI UK Limited (ENI) operated Douglas Complex in Block 110/13 via a 12 kilometre, 8-inch diameter infield production pipeline, which was also installed in 2012.

EOGUKL is the Licence and Field Operator (and Installation, Well and Pipeline Operator) of the Conwy Development.

3 Environmental Management System

EOGUKL operates under an integrated Environmental, Health and Safety (EHS) Management System, which has been developed to be consistent with existing international and national models for health, safety and environmental management (e.g. ISO 14001, OHSAS 18001, HSG (65), BS 8800).

The management process is structured around the plan, do, assess and adjust process, with a feedback loop to assure continual improvement in performance, as illustrated in Figure 3.1. This system provides the mechanism to implement EOGUKL standards relevant throughout the business lifecycle from acquisition of new licences and acreage through to decommissioning and divestiture.

The key steps in this process can be described as follows:

1. Policies, Standards and Expectations

The system is driven by the Corporate Major Accident Prevention Policy (CMAPP) and the EHS Policy (copies of which have been provided in Appendices A and B), which sets out the Company's expectations and commitments to the prevention of major accident hazards and EHS performance. The policies provide a framework for establishing performance goals, from which targets are established.

2. Organise

Planning during the annual budget process defines work activities and resource needs for the upcoming year. EHS roles and responsibilities are clearly defined. Commitment to EHS is visibly demonstrated through defined internal and external communication networks. Personnel have the competence and training to meet their responsibilities.

Doc Ref: EOG-MS-EHS-3-42 Page No: 1	eog resources	8
---	---------------	---

3. Plan

All potential hazards and risks associated with planned activities are identified, assessed and control measures identified. Plans to respond to emergencies and unforeseen events are in place.

4. Do

Guidelines, bridging/interface documents and local operating procedures are established so that risks are properly managed and the Company's expectations and standards are delivered. Competent contractors are selected and managed. Significant changes made to the organisation, plant/ equipment, guidelines and procedures are also subject to this risk review as part of the change management process.

5. Assess and Adjust

Routine monitoring is undertaken to assess EHS performance. Procedures for reporting and investigating incidents and non-compliances are in place. Audits, inspections and reviews are undertaken to check the effective functioning and continued suitability of the management system. Performance against standards is reported and reviewed and areas for improvement identified. Lessons learned and results from the audit, inspection and review process are fed back into the system to enable continual improvement.

Figure 3.1. The EHS Management Framework



As required by OSPAR Recommendation 2003/5, EOGUKL's EMS has been independently verified by Lloyds Register in September 2016. The EMS is scheduled to be re-verified in September 2018.

Doc Ref: EOG-MS-EHS-3-42 Page No: 2	Seog resources
--	----------------

4 Overview of 2017 Activities

EOGUKL's 2017 operated offshore activities comprised ongoing production operations at the Conwy field/development in Block 110/12a in the East Irish Sea (Figure 3.1).

This included production operations, maintenance and minor construction activities at the Conwy facilities and also minor EOGUKL construction work and operational supportat the ENI operated Douglas Complex host facility to which Conwy produces. The activities undertaken were as follows:

- Production operations involving the Conwy NPAI facilities;
- Wax remediation work relating to the Conwy oil export pipeline clearing of the hard wax and from the pipeline with operational and accommodation support for some of this work being provided by the jack-up barge Seafox 2, which was sited at the Conwy Platform from the 11th May 2017 to 13th July 2017; and
- Minor modifications to the Douglas Complex to handle Conwy field fluids.

Further details on activities associated with these operations and a summary of environmental performance pertaining to these activities is discussed in Section 5.

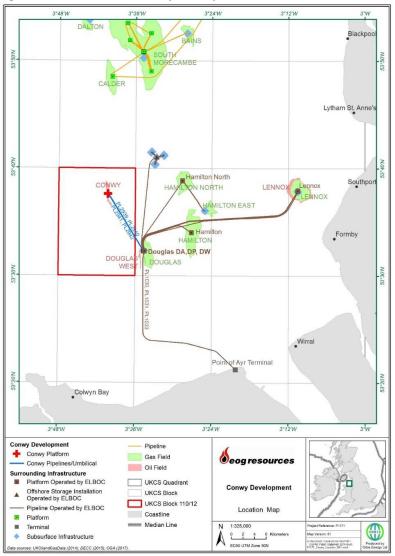


Figure 4.1. Location of the Conwy Development and Associated Infrastructure

🖉 eog resources	



5 Summary of 2017 Environmental Performance

The potential environmental impacts associated with EOGUKL's 2017 offshore activities include those associated with ongoing production operations at the Conwy field including:

- Chemical use and discharges as regulated under The Offshore Chemical Regulations 2002 (as amended); and
- Waste generated on the Conwy NPAI.

For reporting purposes, the Conwy infrastructure refers to solely facilities and pipeline owned and operated by EOGUKL, which comprise the NPAI and pipeline infrastructure (consisting of a production pipeline, water injection pipeline, condensate injection pipeline, associated risers and a control / power / chemicals umbilical).

Of note is that normal power requirements for the Conwy field are met via a power cable from the ENI operated Douglas Complex. Power generation requirements, and therefore associated atmospheric emissions, from the Conwy NPAI are considered negligible.

5.1 Conwy Infrastructure Environmental Performance Data

Environmental Indicator	Conwy NPAI					
Chemical Performance	Use (kilogrammes)		Discharge (kilogrammes) ¹		nmes) 1	
Gold	233,221			55		
E		106			84	
Waste Type	Reuse (tonnes)	Recycle (tonnes)	Waste to Energy (tonnes)	Incinerate (tonnes)	Landfill (tonnes)	Other (tonnes)
Special Waste (Group I)	0.264	-	-	2.200	-	-
General Waste (Group II)	0.100	2.480	-	-	9.640	-
Other (Group III)	-	-	-	-	-	-
Environmental Incidents						
Chemical Release		Number of Incidents			()
Hydrocarbon Release		Number o	of Incidents		-	L

Table 5.1. Environmental Performance Data from the Conwy NPAI

¹ Only two chemicals were discharged under the Conwy NPAI chemical permit during 2017, since production chemicals are discharged via the Douglas Complex under the Douglas Complex chemical permit.

5.2 Accidental Releases

Oil or chemical release incidents are reported to OPRED in accordance with the electronic Petroleum Operations Notice 1 (ePON1) system.

EOGUKL confirms that a small single oil release incident occurred at the Conwy NPAI, during their operated activities in 2017. No chemical releases occurred in 2017. Table 5.2 provides brief details of EOGUKL's hydrocarbon and chemical incidents at sea during 2017.

Table 5.2. Hydrocarbon and Chemical Incidents at Sea

			Subst	bstance	
Location	Date	Description	Hydrocarbon (kilogrammes)	Chemical (kilogrammes)	
Conwy NPAI	26/03/17	Whilst depressurising the Conwy oil manifold, oil and water mix was carried over the vent line to sea	0.5	-	

Doc Ref: EOG-MS-EHS-3-42 Page No: 4	e og resources
--	-----------------------

6 Progress against 2017 EMS Objectives and Targets

Based on the operated activities in 2017, EOGUKL set a number of EMS targets and objectives. The progress these against these targets and objectives is reported in Table 6.1.

Issue	Objective	Target	Progress / Status	
		Review, update and reissue CMAPP and update EHS Policy	CMAPP issued February 2016 is still valid. EHS Policy updated and reissued May 2017	
Loodorship and	Improve internal	Roll-out updated EHS MS to workforce	Management visits to operational sites	
Leadership and Communication	leadership and communications	8 Management site visits – senior managers to operational sites	Completed	
		Review organisation and training and competency requirements	Continual review of organisation and training programme implemented to ensure competency	
Legislative and Regulatory	Permits and consents – Ensure full compliance	Maintain Conwy Production Consents Register	Continued update and review throughout production operations Included within EOGUKL Action Tracking Register	
Compliance	Conwy Safety Case	Annual review of Conwy Safety Case	Reviewed	
	Conwy OPEP	Annual review of Conwy OPEP	Reviewed	
Contractor Selection and Management	Management and monitoring of contractor performance	Monitor through Audit Plan	Audit of several key production contractors deferred to 2018 due to issues with Conwy production	
Risk Assessment	Ensure risk assessments are competed for all major activities.	Complete operational risk assessments as required for Conwy operations	Risk assessments undertaken as required by EOGUKL and ENI	
Monitoring and	Monitor EHS performance	Maintain and report EHS statistics	EHS statistics maintained for production activities	
Incident Reporting	Incident reporting	Ensure all EHS related incidents and accidents are followed through to closure, with findings reported to workforce within 1 month	Incident and accidents investigated and followed through to closure, but not all within 1 month of occurrence	

Table 6.1. Performance and Progress against EOGUKL's 2017 EMS Objectives and Targets

S eog resources	Doc Ref: EOG-MS-EHS-3-42 Page No: 5	eog resources
------------------------	--	---------------

EOGUKL OSPAR Public Statement 2017

Issue	Objective	Target	Progress / Status
	Review	Quarterly EHS and operations performance review	Reviewed at management meetings
Safety	Incidents	No lost time incidents	None
Performance	incluents	No reportable incidents	None
	Vented gas at the Conwy platform	Reduction in vented quantities compared to 2016 (on unit of production basis)	Pipeline remediation activities required additional venting episodes, increasing vented quantities
Environmental Performance	Oil and chemical spills	No oil or chemical spills	One small hydrocarbon spill
Performance	Offshore chemical use	Set baseline for chemical usage	Chemical use being reviewed following pipeline remediation work
Emergency Response	Emergency plans in place and up to date	Review emergency response plan for anticipated Conwy production operations	Completed
	Emergency response training	Emergency response training - workshops and exercises prior to major operational activity	Complete – training up-to-date
		Exercises held 1 per quarter (3 desktop, 1 full)	Desktops undertaken
		Offshore Conwy drills – 1 per quarter (focus on major accident hazards including 1 oil spill scenario)	Completed
	Oil spill response training	Sufficient number of personnel trained to OPEP Level 1, 2 and 3	Complete – training up-to-date
Reviews and Audits	Ensure facilities and operations are reviewed and audited	2017 Audit Plan – develop and implement (to include audits deferred from 2016)	Audit plan developed but programme not completed due to Conwy pipeline remediation work
	System reviews for suitability	EHS MS Management Review – Suitability for Conwy Production Operations	Completed

S eog resources	Doc Ref: EOG-MS-EHS-3-42 Page No: 6	eog resources
------------------------	--	---------------

7 Proposed 2018 Objectives and Targets

In 2018, EOGUKL's UKCS operated activities are focussed on the maintenance and operation of the Conwy facilities. EOGUKL has identified a number of objectives and targets to aim for to improve environmental performance in offshore activities in 2018; these are presented in Table 7.1.

lssue	Objective	Target
Leadership, Communication	Improve internal leadership and	Review and reissue EHS Policy, CMAPP and Open Door Policy
and Documentation	communications	Update EHSMS Documentation following EHSMS Management Review
		Communication of EHSMS to personnel
		3 Management site visits per quarter – senior managers to operational sites
		Review organisation, roles/responsibilities, training and competency requirements
Legislative and Regulatory	Permits and consents - ensure full compliance	Maintain action tracking and consents register
Compliance	Conwy Safety Case	Update Conwy Safety Case to reflect anticipated 2018 Conwy production scenarios
	Conwy OPEP	Review and update (if required) Conwy OPEP to reflect spill risks
Contractor Selection and Management	Management and monitoring of contractor performance	Monitor through 2018 Audit Plan
Risk Assessment	Ensure risk assessments are competed for all major	Complete operational risk assessments as required for: • Conwy construction, commissioning and
	activities	 operational activities Douglas construction, commissioning and operational activities for which EOG is responsible
Monitoring and Incident	Monitor EHS performance	Maintain and report EHS statistics
Reporting	Incident reporting	Ensure all EHS related incidents and accidents are followed through to closure, with findings reported to workforce within 1 month
	Review	Quarterly EHS/ operations performance review
Safety	Incidents	No lost time incidents
Performance		No reportable incidents under RIDDOR
Environmental Performance	Vented gas at Conwy platform	Minimise venting activity at Conwy to that required to safely undertake planned pipeline pigging operations and Conwy platform maintenance activity

Table 7.1. 2018 Objectives and Targets	Table 7.1. 201	8 Objectives	and Targets
--	----------------	--------------	-------------

	eog resources
C	eog resources



EOGUKL OSPAR Public Statement 2017

Issue	Objective	Target
		Establish new baseline venting quantitative target for vented quantities based on new pipeline management strategy
	Oil and chemical spills	No oil or chemical spills
	Offshore chemical use	Quarterly review/optimisation of chemical usage
Emergency Response	Emergency plans in place and up to date	Review and update emergency response plan
	Emergency response training	Emergency response training for all personnel (workshops and exercises prior to major operational activity)
		Exercises held 1 per quarter (3 desktop, 1 full to include an oil spill)
		Offshore Conwy drills – at least 1 per quarter (focus on major accident hazards, but to include 1 oil spill scenario per OIM per annum)
	Oil spill response training	Sufficient number of personnel trained to DECC Level 1, 2 and 3
Reviews and Audits	Ensure facilities and operations are appropriately reviewed and audited	EHSMS Management Review – Suitability for Conwy Production Operation (see also under "Leadership, Communication and Documentation" above)
		Develop and implement 2018 Audit Plan



Appendix A: Corporate Major Accident Prevention Policy

EOG Resources United Kingdom Limited

Corporate Major Accident Prevention Policy (CMAPP)

This CMAPP sets out the overall aims and arrangements for controlling the risk of a major accident within EOG Resources United Kingdom Limited (EOGUKL) and outlines how those aims shall be achieved. This CMAPP applies to all operations undertaken by EOGUKL and shall be communicated by EOGUKL's Management Team to those persons involved in, or affected by, such operations.

EOGUKL shall:

- Continue to support the objectives set out in EOGUKL's Environmental, Health and Safety (EHS) Policy
 with the goals of no accidents, no harm to people and no damage to the environment.
- Ensure that major accident hazards with the potential to impact people, the environment and asset integrity
 are identified, assessed and managed for all activities under the control of both EOGUKL and EOGUKL's
 contractors.
- Promote and encourage a strong safety culture through:
 - Regular offshore visits by senior management,
 - o Behavioural safety and team building workshops,
 - o Feedback from senior management on safety performance and audit/inspection results,
 - Encouraging participation and suggestions from the workforce for improving safety performance, working conditions and other offshore activities,
 - Implementing an Open Door Policy to encourage reporting of concerns that the workforce feel are not being addressed,
 - Appointment of Safety Representatives and holding regular meetings to discuss issues, concerns, major accident hazards and potential changes to operations,
 - Recognition and rewarding commitments and actions intended to, and/or, deliver improved safety performance.
- Operate an effective system to ensure the competency of all personnel in key roles performing safety and environmental critical tasks.
- Have systems in place to effectively select and manage contractors, and confirm the competence of their personnel and suitability of their management systems.
- Identify safety and environmental critical elements (SECEs) for credible major accidents and:
 - Ensure SECEs are designed to survive any incident they are controlling/mitigating or fail to a state that achieves the desired aim,
 - Have performance standards with defined functionality, availability, reliability, survivability and interdependence (FARSI),
 - Through the establishment of major accident management key performance indicators (KPIs), ensure that SECEs are maintained and their performance monitored to ensure they continue to meet the defined performance standards.
- Manage major accident hazards (MAHs) through prevention which is controlled by:
 - o Use of competent persons and a robust decision making process,
 - o Asset integrity management, involving inspection, pro-active maintenance and repair,
 - Monitoring and maintenance of SECEs,
 - Regular review of performance standards,
 - Change management, involving the identification of impacts to MAHs, SECEs and performance standards, and the implementation of additional controls,
 - Auditing the management of MAHs,
 - Implementing a written verification scheme; reviewing assurance activities with Independent Verification Body (IVB).

EOG-MS-EHS-1-03 Rev6

- 40				
0	eoa	reso	urc	es



- · Establish a Major Accident Management Board (MAMB) that meets at least six-monthly to:
 - o Ensure the CMAPP is in place, current and promoted throughout EOGUKL,
 - Ensure all major accidents associated with EOGUKL's operations have been identified and are being suitably managed at all levels,
 - Review major accident KPIs, both leading and lagging, and whether the CMAPP is being implemented correctly,
 - Share industry good practice with respect to the prevention of major accidents and use this knowledge as part of EOGUKL's continuous improvement,
 - Ensure that the EHS management system and other company systems continue to reflect the CMAPP;
 Act quickly and decisively to address any identified shortfalls or improvement opportunities.
- Hold tripartite discussions (between the competent authority, duty holders and workers' representatives) for any change relating to the management of MAHs; implement appropriate actions arising from these discussions.
- Implement processes to reliably collect and securely store data which can be used for historical analysis.
- Report all incidents (including near misses); investigate events and possible outcomes; establish the root and contributory causes and take action to avoid similar incidents in the future.
- Establish an annual audit programme to address:
 - o Compliance with the EHS Policy and the CMAPP,
 - o Compliance with regulatory requirements (including safety cases),
 - o EHS policies, goals, procedures and organisational capabilities,
 - o Management of asset integrity,
 - o Management of major accident hazards.

The frequency of audits will be commensurate to the hazards and risks of EOGUKL's business activities. The audit programme shall underpin continuous improvement in the control of major accident hazards.

- Have systems, personnel and resources in place to enable command and control of major accidents utilising emergency management and response plans. All personnel directly involved in the management of major accidents shall be trained and assessed for their roles.
- Undertake senior management reviews and establish improvement action plans annually (or at other more frequent intervals if required by the MAMB, change management or review/audit finding) as defined within the company's EHS management system. These reviews include:
 - o The EHS Policy,
 - The continued applicability, implementation and effectiveness of the company's EHS management system,
 - o The company's EHS goals and objectives,
 - The availability and capability of resources (competent personnel, systems, procedures, hardware), necessary to ensure the effective management of major accident hazards,
 - Results of performance monitoring, incident investigations, comments from the workforce and results of internal and external audits.

The UK Country Manager has prime accountability for ensuring this CMAPP is suitable, implemented and operated as intended.

Senior Management Commitm	ent to this CMAPP
Adam Farrow, UK Country Manager	44 Juli
Steve Holmes, Commercial & Regulatory Affairs Manager	Attolma
Gavin Morrice, Conwy Asset Integrity Manager	Un

EOG-MS-EHS-1-03 Rev6

- 4				
0	eoa	reso	urc	es



Appendix B: EHS Policy



EOG Resources United Kingdom Limited

Environmental, Health and Safety Policy

EOG Resources United Kingdom Limited (EOGUKL) conducts its business with a commitment to safeguard the environment and human health. Good environmental, health and safety performance is critical to the success of our business and is the responsibility of every person working for and on behalf of EOGUKL.

In furtherance of this policy, EOGUKL:

- Considers environmental, health and safety performance, including the management and control of major accident hazards, to be an integral part of business planning, development, operations and decision-making.
- Conducts its business and applies management systems in a manner designed to comply with all
 applicable environmental, health and safety laws, regulations and other requirements, applying
 responsible standards where such laws or regulations do not exist.
- Provides leadership, professional personnel, training, support and other resources necessary for the implementation of environmental, health and safety programmes that are designed to ensure each individual is aware of, and competent to, undertake their responsibilities.
- Continues to drive down the impact of its business on the environment by reducing wastes, emissions
 and discharges, preventing pollution and using energy efficiently.
- Communicates openly and honestly with its customers, employees, contractors, partners, appropriate
 regulatory authorities, the community and public interest groups regarding significant environmental,
 health or safety matters.
- Works with the regulatory authorities, industry groups and others to develop sound, equitable and realistic laws and regulations to protect the environment, personnel and the general public and to raise the standards of our industry.
- Strives to continuously improve and enhance our environmental, health and safety performance, through appropriate means and programmes, toward its goal:
 - no accidents
 - no harm to people
 - no damage to the environment.

Adam Farrow **Country Manager**

May 2017

This policy is in addition to the requirements of the EOG Resources, Inc. Conduct of Business Affairs policy relating to environmental, health, and safety matters and the EOG Resources, Inc. Environmental, Health and Safety Policy.

EOG-MS-EHS-1-01 Rev 11

- 4	
\mathbf{O}	eoa resources

