2017
ANNUAL REPORT

SBM OFFSHORE

EXPERIENCE MATTERS

safety, environmental, security incidents, loss of containments, equipment failure and damage only incidents.

Safety incidents are reported based on the incident classifications as defined by the IOGP Report 2015 – Jan 2016. Health incidents are reported based on the occupational illnesses classification given in IOGP Report Number 393 – 2007.

The Company also reports incident data from Contractor's construction facilities if the incident is related to an SBM Offshore project.

The Company uses records of exposure hours and SRS data to calculate Health and Safety performance indicators set by SBM Offshore.

5.1.6 ENVIRONMENTAL REPORTING

OFFSHORE

The environmental and process safety offshore performance reporting scope is comprised of offshore units that use the following reporting boundaries:

- Units in the Company's fleet producing and/or storing hydrocarbons under lease and operate contracts during 2017
- Units in which the Company exercises full operational management control
- Units in which the Company has full ownership or units that are jointly owned and where the Company has at least 50% ownership

The environmental and process safety performance of the Company is reported by region or management area: Brazil, Angola, North America & Equatorial Guinea and Asia. Based on the criteria stated above, SBM Offshore reports on the environmental performance for the following 14 units:

- Brazil – FPSO *Espirito Santo*, FPSO *Capixaba*, FPSO *Cidade de Paraty*, FPSO *Cidade de Anchieta*, FPSO *Cidade de Ilhabela,* FPSO *Cidade de Marica,* FPSO *Cidade de Saquarema*
- Angola – FPSO *Mondo*, FPSO *Saxi Batuque* and *N'Goma* FPSO
- North America & Equatorial Guinea – FPSO *Aseng*, Deep Panuke *(MOPU)*, *Turritella* (FPSO)
- Asia – FSO *Yetagun*

The environmental offshore performance reporting methodology was chosen according to the performance indicators relative to GRI Standards and IOGP guidelines. This includes:

- Greenhouse Gases, referred to as GHG which are N_2O (Nitrous Oxide), CH_4 (Methane) and CO_2 (Carbon Dioxide)
- GHG emissions per hydrocarbon production from flaring and energy generation
- Non Greenhouse Gases which are CO (Carbon Monoxide), NO_x (Nitrogen Oxides), SO_2 (Sulphur Dioxide) and VOCs (Volatile Organic Compounds)
- Gas flared per hydrocarbon production, including gas flared on SBM Offshore account
- Energy consumption per hydrocarbon production
- Oil in Produced Water per hydrocarbon production

SBM Offshore reports some of its indicators as a weighted average, calculated pro rata over the volume of hydrocarbon production per region. This is in line with the IOGP Environmental Performance Indicators.

ONSHORE

SBM Offshore reports on its onshore scope 1 and 2 emissions[24] by operational control and discloses on the following locations; Netherlands, Monaco, Malaysia, United States of America, Brazil, Switzerland and Canada. Efforts are being made to extend the reporting scope to include all shore bases. SBM Offshore does not have absolute targets as the Company is focused on the maturity of its data collection.

SBM Offshore reports in this Annual Report for the first time on greenhouse gas emissions related to business flights (scope 3). The data consists of all flights booked via our standard travel system and the data covers all operating companies. The Company applies the UNECE/EMEP Emission Inventory Guidebook 2016 (SNAP/CORINAIR) for greenhouse gas emissions associated with flights.

For the onshore energy usage, the Company uses the World Resources Institute Greenhouse Gas Protocol (GHG Protocol) method to calculate CO_2 equivalents. CO_2 equivalency is a quantity that describes, for a given mixture and amount of greenhouse gas, the amount of CO_2 that would have the same global warming potential (GWP), when measured over a specified timescale (generally, 100 years).

[24] The World Resources institute GHG Protocol Corporate Standard classifies a company's GHG emissions into three 'scopes'. Scope 1 emissions are direct emissions from owned or controlled sources. Scope 2 emissions are indirect emissions from the generation of purchased energy. Scope 3 emissions are all indirect emissions (not included in scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions.

Construction Yards environmental data, specifically emissions, energy and water usage have not been included in scope. SBM Offshore is aware that the construction yards may have a large impact on the environment and have identified this as part of its license to grow under the initiative 'Manage Environmental Impact'.

ATMOSPHERIC EMISSIONS

The calculation of air emissions from offshore operations units uses the method as described in the EEMS-Atmospheric Emissions Calculations (Issue 1.810a) recommended by Oil & Gas UK (OGUKA). SBM Offshore uses the GHG Global Warming Potentials (GWP) from the Fourth Assessment Report issued by Intergovernmental Panel on Climate Change (IPCC).

Emissions reported in the Company's emissions records include:

- GHG emissions for the production of energy. Records of GHG emissions from steam boilers, gas turbines and diesel engines used by the operating units.
- GHG emissions from gas flared. Flaring events accountability is split into either Client or SBM Offshore: SBM Offshore Account is flaring resulting from unplanned events. Whereas Client Account is flaring resulting from events caused by the Client or planned by SBM Offshore in agreement with the Client.

Identifying the causes of flaring for which SBM Offshore is responsible and acting on these events is part of the continuous improvement process.

OFFSHORE ENERGY CONSUMPTION

The energy used to produce oil and gas covers a range of activities, including:

- Driving pumps producing the hydrocarbons or re-injecting produced water
- Heating produced oil for separation
- Producing steam
- Powering compressors to re-inject produced gas
- Driving turbines to generate electricity needed for operational activities.

The main source of energy consumption of offshore units is Fuel Gas and Marine Gas Oil.

OIL IN PRODUCED WATER DISCHARGES

Produced water is a high volume liquid discharge generated during the production of oil and gas. After extraction, produced water is separated and treated (de-oiled) before discharge to surface water. The quality of produced water is most widely expressed in terms of its oil content. Limits are imposed on the concentration of oil in the effluent discharge stream (generally expressed in the range of 15-30 ppm) or discharge is limited where re-injection is permitted back into the reservoir. The overall efficiency of the oil in water treatment and as applicable reinjection can be expressed as tonnes of oil discharged per million tonnes of hydrocarbon produced.

Incidental environmental releases to air, water or land from the offshore operations units are reported using the data recorded in the Single Reporting System (SRS) database. SBM Offshore has embedded a methodology for calculating the estimated discharge and subsequent classification within the SRS tool.

WASTE

In line with the GRI standards, SBM Offshore reports on hazardous and non-hazardous waste outputs. The reporting methodology is detailed in each Unit's Waste Management procedure which is part of Environmental Management System Manual. Collected information is based on manifests issued by the installations in compliance with Client requirements.

DATA REVISIONS

Gas Flared

In 2016, gas flared was divided into three categories, 'SBM Offshore account', 'Client account' and 'Flare Limit not Exceeded'. In 2017, to improve the visibility and accountability, reporting has been split into two categories; SBM Offshore or Client accounts.

Updated Calorific Values

SBM Offshore updated the calorific values used to measure Fuel Gas and Marine Gas Oil (MGO) as part of its continuous improvement process. For the sake of comparison the updated calorific values were applied to 2016 and 2017 data.

Updated Gas Densities

The H_2S density was updated as part of continuous improvement. The non-greenhouse gas, SO_2 calculation is now based on molecular weight as for other parameters. For the sake of comparison the updated densities were applied to 2016 and 2017 data.

Updated Global Warming Potentials

SBM Offshore has updated the Global Warming Potential (GWP) factors used to convert GHG into CO_2

equivalent (CO_2e) of each GHG reported. In 2017 SBM Offshore implemented the GWP according to the Fourth Assessment Report (AR4) issued by the IPCC. In previous years SBM Offshore applied the GWP factors from the Second Assessment Report (SAR). Updating the SBM Offshore's GWP to the AR4 increased the reported GHG emissions in CO_2 equivalents. The 2016 figures have been restated to reflect the new GWP factor for sake of comparison.

GHG Global Warming Potential conversion factors and revised data

IPCC Report	SAR	AR 4
Carbon Dioxide (CO_2)	1	1
Methane (CH_4) in CO_2e	21	25
Nitrous Oxide (N_2O) in CO_2e	310	298
IPCC Report	SAR	AR 4
SBM Offshore emissions in CO_2e	2016	2016
Carbon Dioxide (CO_2)	5,766,556	5,766,556
Methane (CH_4) in CO_2e	385,371	458,775
Nitrous Oxide (N_2O) in CO_2e	95,790	92,082
Total GHG in CO_2e	**6,247,717**	**6,317,413**

5.1.7 PROCESS SAFETY REPORTING

A Loss of Primary Containment (LOPC) is defined as an unplanned or uncontrolled release of any material from primary containment, including non-toxic and non-flammable materials (e.g. steam, hot condensate, nitrogen, compressed CO_2 or compressed air).

A Process Safety Event (PSE) is defined as an LOPC from a process that meets the Tier 1, Tier 2 or Tier 3 definitions within API RP 754.

Loss of Primary Containment (LOPC) events are reported in the Company's Single Reporting System as highlighted in Section 5.1.5. All LOPC's are analysed to identify those considered to be PSE's as per API RP 754. Process Safety KPIs used by the Company include the number of Tier 1 and the number of Tier 2 PSE's.

REVISED DATA

The data for Process Safety Events (PSE's) reported in 2016 have been revised to include six additional Tier 2 PSE's which were previously classified as Tier 3 events (Total of 20 Tier 2). As reported in section 2.6.1, this is an additional outcome of the activity of the review of Tier 3 events performed at the beginning of 2017.

5.1.8 HUMAN RESOURCES REPORTING

The Company's Human Resources data cover the global workforce and are broken down into parts which are: operating units, employment type, gender and age. The performance indicators report the workforce status at year-end December 31, 2017. It includes all staff who were assigned on permanent and fixed-term contracts, employee hires and departures, total number of locally-employed staff from agencies and all crew working on board the offshore operations units.

Human Resources considers:

- 'Permanent' employees as a staff member, holding a labor contract for either an unlimited or a defined period (or an offer letter for an unlimited period in the USA). Permanent employees are recorded on the payroll, directly paid by one entity of the SBM Offshore Group.
- 'Contractors' as an individual performing work for or on behalf of SBM Offshore, but not recognized as an employee under national law or practice (not part of SBM Offshore companies payroll, they issue invoices for services rendered).
- 'Subcontractors' are not considered as staff in the HR headcount breakdown structure. This population is managed as temporary service and are not covered by HR processes policies.

For reporting purposes certain performance indicators report on Construction Yard employees separately. Construction Yard employees for Human Resources reporting purposes consist of employees for yards located in Brazil and Angola. Construction Yard employees constitute a non-traditional type of SBM Offshore workforce who work in construction yards, which SBM Offshore owns and/or operates via a joint venture and could be allocated to non-SBM Offshore projects. SBM Offshore includes the Brasa Yard in Brazil and the Paenal yard in Angola in its reporting scope based on partial ownership and operational control including human resource activities and social responsibility for the employees.

In principle, reporting on Headcount, Turnover, Training, and Collective Bargaining, covers all SBM Offshore entities, including Construction yards. For the reporting on Appraisals and Absenteeism, Construction Yards employees are not included, due to the limits on influence and impact that SBM Offshore has with JV partners in the Panael and Brasa yards.