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REPORT FROM THE COMMISSION

Annual Report on the Safety of Offshore Oil and Gas Operations in the European Union for the Year 2020

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Table of contents

| 1. | INTRODUCTION | 3 |
|----|--|----|
| 2. | LEGAL BASIS | 4 |
| 3. | METHODOLOGY AND INFORMATION RECEIVED | 4 |
| 4. | THE EU OFFSHORE OIL AND GAS SECTOR | 5 |
| | 4.1 Installations and production | 5 |
| | 4.2 Offshore inspections, investigations, enforcement actions and regulatory framework | 8 |
| 5. | INCIDENTS AND SAFETY PERFORMANCE | 9 |
| 6. | CONCLUSIONS | 11 |

1. INTRODUCTION

Since 2016, the European Commission has published an annual report on the safety of EU offshore oil and gas operations.

The legal basis for this report is Directive 2013/30/EU¹ of the European Parliament and of the Council of 12 June 2013 on safety of offshore oil and gas operations and amending Directive 2004/35/EC ('Offshore Safety Directive'). It aims to achieve a high level of safety in offshore oil and gas operations, for the benefit of:

- i. workers:
- ii. the environment;
- iii. offshore platforms and equipment;
- iv. economic activities, such as fishing and tourism.

The Directive, as implemented by Member States, helps to:

- i. prevent major accidents and incidents;
- ii. reduce the number of incidents;
- iii. ensure effective follow-up of accidents and incidents to reduce the severity of their consequences.

As past reports do, this annual report:

- i. gives the number and type of installations in the EU;
- ii. provides information on safety incidents in these installations;
- iii. assesses the safety performance of offshore oil and gas operations.

With every report, the analysis of trends is more meaningful. The reports also serve as a record of the safety performance in Member States' offshore oil and gas activities.

This report is based on annual reports and data submitted by Member States as required by the Offshore Safety Directive.

There are 187 offshore oil and gas installations located in the North Sea and Atlantic Ocean², 165 in the Mediterranean Sea, 9 in the Black Sea and 2 in the Baltic Sea. In 2020, the competent Member State authorities inspected the safety of 141 offshore installations in their jurisdiction. The countries reported 2 major accidents: 1 in Croatia and 1 in Denmark.

The number of incidents decreased from 34 in 2019 to 16 in 2020. This reflects major improvements in the safety of installations.

¹ OJ L 178, 28 June 2013, p. 66.

² After the departure of the UK from the EU, the number of installations in the North Sea and Atlantic Ocean decreased by 176.

2. LEGAL BASIS

In line with Article 25 of the Offshore Safety Directive, the Commission must publish an annual report on the safety and environmental impact of offshore oil and gas operations. This report is based on individual annual reports that Member States must submit to the Commission. Annex IX(3) to the Directive sets out the minimum information the annual reports must contain:

- (a) the number, age and location of installations;
- (b) the number and type of inspections and investigations carried out, in addition to any enforcement action or convictions;
- (c) incidents that have occurred;
- (d) any major change in the offshore regulatory framework;
- (e) the performance of offshore oil and gas operations.

The deadline for Member States to publish and submit the required information is 1 June following the reporting period (e.g. 1 June 2021 for 2020).

Member States must submit the information using the templates provided in Commission Implementing Regulation (EU) No 1112/2014 of 13 October 2014³. The templates allow:

- i. operators and owners of offshore oil and gas installations to share information on major hazard indicators;
- ii. Member States to publish information on major hazard indicators.

A guidance document⁴ provides specific information on the Implementing Regulation and explains how to use the reporting templates.

METHODOLOGY AND INFORMATION RECEIVED 3.

Member States must submit clearly defined information on safety incidents in the offshore oil and gas sector using the templates. The data must include information on the offshore oil and gas installations in the EU, such as number, type, location and age. Reports from Member States must also provide information on the number of (i) offshore inspections, investigations and enforcement actions taken; (ii) incidents by category; and (iii) injuries.

For this annual report, the Commission has used information provided by Bulgaria, Croatia, Cyprus, Denmark, France, Germany, Greece, Ireland, Italy, the Netherlands, Poland, Romania and Spain. Other Member States were not active in the offshore oil and gas sector or did not submit relevant information.

³ OJ L 302, 22 October 2014, p. 2.

⁴ https://euoag.jrc.ec.europa.eu/files/attachments/2015_11_25_implementing_regulation_guidance_document_final.pdf

All Member States with offshore oil and gas operations declared they had submitted all the required information on all installations.

4. THE EU OFFSHORE OIL AND GAS SECTOR

4.1 Installations and production

Member States reported 363 installations in EU waters in 2020 (see Table 1):

- Most offshore installations⁵ are in the North Sea and Atlantic.
- Approximately 42% are in the Dutch part of the North Sea (known as the exclusive economic zone of the Netherlands).
- In the Mediterranean Sea, Italy is the most active (with 38% of all installations in EU waters) followed by Croatia.
- In the Black Sea, Romania has a well-established offshore oil and gas industry. Bulgaria has continued offshore hydrocarbon exploration, but only has one installation and so produces very little oil and gas.
- In the Baltic Sea, only Poland has offshore installations.

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⁵ Mobile offshore drilling units are not part of the analysis in section 4.1.

Table 1: Installations on 1 January 2020: type of installation by region and Member State

| Region | Country | Type of installation(*) | | | | |
|------------------------------|--------------------|-------------------------|-----|-----|-----|---------------------------|
| | | FMI | NUI | FNP | FPI | Total (region/country) |
| Baltic Sea | | 1 | 1 | 0 | 0 | 2 |
| | Poland | 3 | 1 | 0 | 0 | 4 |
| Black Sea | | 6 | 3 | 0 | 0 | 9 |
| | Bulgaria | 0 | 1 | 0 | 0 | 1 |
| | Romania | 6 | 2 | 0 | 0 | 8 |
| Mediterranean Sea | | 16 | 147 | 0 | 2 | 165 |
| | Croatia | 2 | 18 | 0 | 0 | 20 |
| | Greece | 1 | 1 | 0 | 0 | 2 |
| | Italy | 12 | 126 | 0 | 2 | 140 |
| | Spain | 1 | 2 | 0 | 0 | 3 |
| North Sea and Atlantic | | 59 | 127 | 1 | 0 | 187 |
| | Denmark | 10 | 19 | 1 | 0 | 30 |
| | Germany | 2 | 0 | 0 | 0 | 2 |
| | Ireland | 1 | 1 | 0 | 0 | 2 |
| | The Netherlands | 46 | 105 | 0 | 0 | 151 |
| Total (type of installation) | | 84 | 276 | 1 | 2 | 363 |

^(*) FMI: Fixed, manned installation; FNP: Fixed, non-production installation; FPI: Floating production installation; NUI: Normally un-attended installation.

More than half of offshore installations came into operation between 1980 and 2000; in 2020, no new fixed installations came into operation. Since 2010, the development of new production installations has dropped noticeably in the North Sea and Atlantic.

Approximately 81% of the EU's domestic oil and gas (18 795 kilotonnes of oil equivalent) is produced in the North Sea and Atlantic (see Table 2). The biggest contributors there are the Netherlands and Denmark. Italy and Croatia are the biggest producers in the Mediterranean Sea. In the Black Sea, only Romania's output is significant.

Table 2: Offshore oil and gas production in the EU in kilotonnes of oil equivalent (ktoe)in 2020

| Region | Country | ktoe | % of EU total |
|------------------------|-----------------|---------|---------------|
| Baltic Sea | | 249 | 1.3% |
| | Poland | 249 | 1.3% |
| Black Sea | | 1 179 | 5.9% |
| | Bulgaria | 30 | 0.1% |
| | Romania | 1149 | 5.8% |
| Mediterranean Sea | diterranean Sea | | 13.9% |
| | Croatia | 241 | 1.2% |
| | Greece | 97 | 0.5% |
| | Italy | 2422 | 12.1% |
| | Spain | 30 | 0.1% |
| North Sea and Atlantic | | 157 233 | 78.9% |
| | Denmark | 4 917 | 24.6% |
| | Germany | 890 | 4.5% |
| | Ireland | 90 | 0.5% |
| | The Netherlands | 9 826 | 49.2% |
| Total | | 19 941 | 100 % |

As a result of the UK's exit from the EU, the EU lost ca. 80% of its offshore oil and gas production. Production increased slightly in Poland, Bulgaria and Germany but declined in all other Member States, particularly in Denmark. Compared to production in Member States in 2019, there was a 18% loss of production (ca. 4 317 kilotonnes of oil equivalent) in 2020.

From overall production in the EU measured in kilotonnes of oil equivalent (ktoe), 70 % was gas and only 30 % oil. With 3619 ktoe Denmark was the most important producer of oil, followed by Germany (867 ktoe), Netherlands (451 ktoe) and Italy (440 ktoe).

4.2 Offshore inspections, investigations, enforcement actions and regulatory framework

The competent authorities in the Member States regularly inspected the offshore installations in their jurisdiction in 2020 (see Table 3) – the more installations a country had, the more inspections it usually carried out.

Compared to 2019⁶, the number of inspections, working days spent on installations for inspections and the number of inspected installations declined. In particular, inspectors spent far less time on installations than in 2019.

Table 3: Numbers of offshore inspections by region and Member State in 2020

| Region | Country | Inspections | Working days spent on installation (travel time not included) | Number of installations inspected |
|----------------------|----------|-------------|---|-----------------------------------|
| Baltic Sea | I | 2 | 7 | 4 |
| | Poland | 2 | 7 | 4 |
| Black Sea | I | 10 | 60 | 7 |
| | Bulgaria | 0 | 0 | 0 |
| | Romania | 10 | 60 | 7 |
| Mediterranean Sea | | 181 | 175 | 80 |
| | Croatia | 13 | 13 | 6 |
| | Cyprus | 0 | 0 | 0 |
| | Greece | 1 | 5 | 2 |
| | Italy | 164 | 156 | 69 |
| | Spain | 3 | 1 | 3 |
| North Sea and Atlant | ic | 62 | 89 | 50 |
| | Denmark | 12 | 53 | 10 |

⁶ To compare 2020 to 2019, we do not include 2019 UK data.

| | Germany | 2 | 3 | 2 |
|-------|-----------------|-----|-----|-----|
| | Ireland | 2 | 12 | 2 |
| | The Netherlands | 46 | 21 | 36 |
| Total | | 255 | 331 | 141 |

Article 18 of the Offshore Safety Directive gives rights and powers to the competent national authorities for operations and installations in their jurisdiction. These powers include the right to prohibit operations and to request measures ensuring both risk management compliance and safe operations.

In 2020, Denmark investigated one major accident and Croatia carried out one investigation following safety and environmental concerns reported by the workforce. In 2019, Italy and Romania conducted one investigation each.

In 2020, only Denmark took an enforcement action. The only enforcement action in 2019 (excluding the UK) was taken by the Netherlands.

5. INCIDENTS AND SAFETY PERFORMANCE

Operators and owners of installations and national authorities must report an accident or situation of serious danger (referred to as an 'event'). However, a single event can be categorised by one or more incidents. For example, two incident categories have to be notified for the same event if there was an (a) unintended release of gas that (b) required the evacuation of staff.

Member States reported 15 events⁷ in 2020 compared to 30 in 2019 (excluding the UK):

- Denmark 8 events (6 in 2019), including 1 major accident.
- Croatia 3 events (0 in 2019), including 1 major accident.
- The Netherlands 4 events but no major accidents (18 events in 2019, including 1 major accident).

Major accidents include incidents that could cause fatalities or serious injuries (even if none occurred).

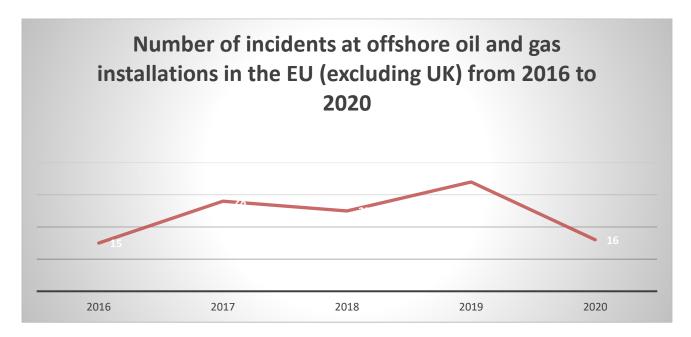
Of the incidents that occurred in 2020, 69% belong to the category of unintended releases of gas and/or oil, 25% concerned safety and environmental critical elements failures, and 6% concerned the loss of structural integrity. On a positive note, no vessel collisions or helicopter accidents were reported, and none of the incidents led to the loss of life.

⁷ The reporting obligation does not cover certain events (e.g. those not related to operations).

Table 4: Incidents by category (set out in Annex IX to the Offshore Safety Directive) in 2020

| Category | | | Share of category total | Share of total events |
|----------|--|----|-------------------------|-----------------------|
| (a) | Unintended releases – total | 11 | 100% | 68.75% |
| | Fires caused by ignited oil/gas | 1 | 9.09% | 6.25% |
| | Explosions caused by ignited oil/gas | 0 | 0% | 0% |
| | Unignited gas | 5 | 45.45% | 31.25% |
| | Unignited oil | 5 | 45.45% | 31.25% |
| | Hazardous substance | 0 | 0% | 0% |
| (b) | Loss of wells – total | 0 | 0% | 0% |
| | Blowouts | 0 | 0% | 0% |
| | Blowout/diverter activation | 0 | 0% | 0% |
| | Well barrier failure | 0 | 0% | 0% |
| (c) | Safety and environmental critical element failure | 4 | 100% | 25% |
| (d) | Loss of structural integrity – total | 1 | 100% | 6.25% |
| | Loss of structural integrity | 1 | 100% | 6.25% |
| | Loss of stability/buoyancy | 0 | 0% | 0% |
| | Loss of station keeping | 0 | 0% | 0% |
| (e) | Vessel collisions | 0 | | |
| (f) | Helicopter accidents | 0 | | |
| (g) | Fatal accidents ^(*) | 0 | | |
| (h) | Serious injuries of five or more people in the same accident | 0 | | |
| (i) | Evacuation of personnel | 0 | | |
| (j) | Environmental accidents ^(**) | 0 | | |
| Total | | | | 100% |
| (*) 0 | Only if related to a major accident. | | | |

In the EU, the total number of incidents decreased from 34 in 2019 (excluding the UK) to 16 in 2020 (see below). This is almost equivalent to 2016.



This decrease has largely been due to a drop in unintended releases of both oil and gas. Incidents in the loss of well control and releases of hazardous substances categories dropped to zero in 2020. However, safety and environmental critical element failures increased from two to four between 2019 and 2020. As in 2019, two incidents were classified as major accidents because they could have caused fatalities or serious injuries.

6. CONCLUSIONS

In 2020, there were 363 offshore oil and gas installations in the EU. Overall oil and gas production substantially decreased from 24 258 kilotonnes of oil equivalent in 2019 to 19 941 kilotonnes of oil equivalent in 2020. Denmark and the Netherlands produced 74% of the EU's total offshore oil and gas.

The Commission has assessed the safety of the EU's offshore oil and gas operations based on the information provided by Member States, according to the rules of the Implementing Regulation on reporting. The accuracy of the Commission's analysis therefore depends on the accuracy of this information.

In 2020, national authorities kept up their efforts to ensure a high level of safety in offshore oil and gas operations by inspecting 141 installations (compared to 170 in 2019). Denmark was the only country that reported an enforcement action.

There were two major accidents in 2020, as in 2019. The total number of incidents (as categorised in Table 4) decreased from 34 in 2019 to 16 in 2020, mainly thanks to a reduction of incidents in the Netherlands (from 18 to 4). As in 2019, no fatalities were reported, but 24 injuries and 10 serious injuries occurred.

In conclusion, thanks to the obligatory inspections and the remedial action taken, in line with the Offshore Safety Directive,, the work of Member State authorities has resulted in substantially safer offshore oil and gas operations, compared to 2019.

To maintain this high level of safety, the Commission continues to work closely with the European Union Offshore Authorities Group (EUOAG). This includes driving home the importance of applying best practices in all Member States, and assisting national authorities represented in the group.