

Methodological and accompanying notes related to

Report on the state and safety of the offshore activities in the hydrocarbon upstream sector Italy Year 2019

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Section 1 – Profile

> No notes on this session.

Section 2 –Installations

[✓a] Note to the **Tab. 2.1 Installations within jurisdiction of the State** [in 2.1.Fixed installations/].

The Table 2.1 shows all the offshore fixed installations, physically present on 1st January of the year 2019, even if they were not productive.

[✓b] Note to the field “**Type of installation**”

of the **Tab. 2.1** [in 2.1.Fixed installations/];

of the **Tab. 2.2.a** [in 2.2. Changes.... /a. New fixed installations/];

of the **Tab. 2.2.b** [in 2.2. Changes.... /b. Fixed Installations out of operation/].

1. In addition to the requirements of the *Regulation(EU) No. 1112/2014*¹, the table also shows the subsea wellheads, specifying the year of installation, the type of fluid produced and the coordinates; in order to be consistent with the classification system adopted by the Regulation, submarine wellheads are classified under the NUI label (fixed plant normally unmanned); on 1st January 2019, the subsea wellheads were 14 (AQUILA 2, AQUILA 3, ARGO 1, ARGO 2, BONACCIA EST 2, BONACCIA EST 3, CAMILLA 2, CASSIOPEA 1, ELENA 1, EMILIO 3, LUNA 27, LUNA 40 SAF, PANDA 1, PANDA W1).
 2. The floating units supporting the hydrocarbon production (FPI) can be further classified in FSO and FPSO: on 1st January 2019, there were two *Floating Storage and Offloading unit* (ALBA MARINA and LEONIS); on the same date, there were no *Floating Production Storage and Offloading units* in the Italian seas after FIRENZE FPSO was disconnected and temporarily removed in 2018.
 3. On 1st January 2019, the platforms supporting the hydrocarbon production (treatment/compression/gathering) were 10 (AZALEA B PROD, BARBARA T, BARBARA T2, BRENDA PROD, CERVIA K, DARIA B, GARIBALDI K, GARIBALDI T, PORTO CORSINI W T, SAN GIORGIO MARE C).
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[✓c] Note to the field “**Year of installation**”

of the **Tab. 2.1** [in 2.1.Fixed installations/];

of the **Tab. 2.2.a** [in 2.2. Changes.... /a. New fixed installations/];

of the **Tab. 2.2.b** [in 2.2. Changes.... /b. Fixed Installations out of operation/].

We have assumed that the year of installation refers to the year of offshore installation campaign; in fact, a platform installed in a certain year could enter in operation in the following years: for instance, the platform Clara NW was installed in 2015 but the production start-up was in 2016 [for further information, please see *Methodological notes accompanying the Report on the state and safety of the offshore activities in the hydrocarbon upstream sector - Italy - Year 2016*²].

¹Commission Implementing Regulation (EU) No 1112/2014 of 13 October 2014 determining a common format for sharing of information on major hazard indicators by the operators and owners of offshore oil and gas installations and a common format for the publication of the information on major hazard indicators by the Member States.

² <https://www.mise.gov.it/index.php/it/ministero/organismi/comitato-offshore>

[✓d] Note to the field “**Coordinates**”
of the **Tab. 2.1** [in 2.1.Fixed installations/];
of the **Tab. 2.2.a** [in 2.2. Changes.... /a. New fixed installations/];
of the **Tab. 2.2.b** [in 2.2. Changes.... /b. Fixed Installations out of operation/].

In the tables, the coordinates refer to the World Geodetic System 1984 (WGS84).

[✓e] Note to the **Tab.2.2.a New fixed installations entered in operations during the reporting period**
[in 2.2. Changes/a. New fixed installations /].

The table 2.2.a refers to the new fixed installations which, during the reporting period [2019], entered into operation, or rather, which started production.

[✓f] Note to the **Tab.2.2.b Decommissioned Installations during the reporting period**
[in 2.2. Changes.... /b. Fixed Installations out of operation/].

The table 2.2.b. refers to the installations which were subject to decommissioning, even if temporarily, during the reporting period [2019].

[✓g] Note to the **Tab.2.3 Mobile installations** [in 2.3.Mobile installations]

The table 2.3 lists the mobile installations involved in well operations.

[✓h] Note to the **Par. 2.4. Information for data normalization purposes**

1. For the purpose of the Implementing Regulation (EU) No. 1112/2014, “normalization” means a transformation applied uniformly to each element in a set of data so that the set has some specific statistical property.
 2. The sources for hydrocarbon production data are:
 - I. the UNMIG³database of the DGISSEG (*Directorate General for the Infrastructures, Safety and Security of Energy and Geo-mining systems*) of the *Ministry of the Economic Development*;
 - II. the *UNMIG databook 2020 (activity 2019)* published by the DGISSEG of the *Ministry of Economic Development*.
 3. The figure of hydrocarbon production in kilotonnes of oil equivalent (ktoe) is calculated – only for the purpose of normalizing the data in this report – on the basis of the following assumptions:
 - I. the definition of *toe* of the *International Energy Agency*, according to which the tonne of oil equivalent is equal to 10^7 kcal or 41.868 GJ;
 - II. the value of 8 190 kcal/m³ is conventionally assigned to the lower calorific value of the natural gas, in continuity with what was done in the previous editions.
 4. The symbol *Scm* means “standard cubic meter”, that is the unit of measurement of the gaseous substance quantity contained in a cubic meter at standard conditions of temperature (15 °C) and pressure (atmospheric pressure equal to 1 atm or 101 325 Pa).
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³ UNMIG: *National Mining Office for Hydrocarbons and Georesources*

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5. Information related to the offshore working hours is provided by the operators to the *Directorate General for the Infrastructures, Safety and Security of Energy and Geo-mining systems* of the *Ministry of the Economic Development*.
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Section 3 – Regulatory functions and framework

[✓i] Note to the **Tab.3.1 - Data on the offshore inspections** [in 3.1. Inspections]

The figures of the table 3.1 show the information on the inspection activities carried out in 2019.

Column 1. *“Number of offshore inspections”* means the number of site inspections carried out on board of offshore installations during the reporting period.

Column 2. *“Man-days spent on installations”* means the total sum of days spent by each inspector to carry out the inspections on board of the offshore installations during the year 2019, not considering travel time; if the plants are close enough, inspections on different installations might be carried out on the same day.

Column 3. *“Number of inspected installations”* means the number of different installations inspected during the year 2019.

Section 4 – Incidents data and performance of offshore operations

[✓l] Note to the **Par. 4.1. Incident data**

1. As indicated in the *Guidance Document on Implementing Regulation No.1112/2014*⁴, the term “event” refers to an incident – but, more generally, even to a potentially critical episode for safety – which requires to be reported to the Competent Authority, if it can be included in one or more categories, described in the *Directive 2013/30/EU*⁵ and operationally specified in Annex I of *Implementing Regulation (EU) No. 1112/2014*⁶ (the mentioned categories are shown in the first column of the table in the following par. 4.2).
2. In the paragraph 4.1, the indication on the “number of reportable events” refers to the *number of occurred events* during the reporting year.
3. In 2019, two (2) events occurred, one (1) of which is considered to be a major accident.

[✓m] Note to the **Tab.4.2-Incident Categories** [in 4.2. Annex IX Incident Categories]

1. In the table 4.2 (Incident Categories), the “number of events” column refers to the *number of events per category*.
2. As indicated in the Annex I of the *Implementing Regulation (EU) No. 1112/2014*, «if the incident falls into one of the mentioned categories [...the relevant sections are filled in, considering that...] a single incident could result in completing multiple sections»; in other words, even more than one category can be used in order to better describe each single event (i.e. each single occurred incident that requires to be reported⁴, as explained in the previous note l.1).
3. In the column named “number of events” (table 4.2), the value 1 has been assigned to each category related to a single event⁷; for this reason, if multi-category events were recorded during the reference year, we consider it is normal that the sum $N_C(\text{par.4.2})$ [the sum of the figures in the column *number of events (per category)* of the table 4.2] is greater than the figure $N_O(\text{par.4.1})$ [the *number of (occurred) events*, reported in par. 4.1].

Using a summary formulation:

$$N_C(\text{par.4.2}) \geq N_O(\text{par.4.1})$$

with > , in case of one or more multi-category events;

with = , in case of no multi-category event.

⁴«*event*: an incident that requires to be reported under Annex I of the *Implementing Regulation*» from EUOAG, *Guidance Document on Commission Implementing Regulation (EU) No.1112/2014*, Part 2-Definitions, pag.5 [<https://euoag.jrc.ec.europa.eu/node/11>].

⁵ Directive 2013/30/EU 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, Annex IX (Sharing of information and transparency), point 2.

⁶ «*Event categorisation*

What type of event is being reported? (More than one option might be chosen)»

... (the list of the categories and the related sections follow)....

«*Remarks*;

...a single incident could result in completing multiple sections»,

form Commission *Implementing Regulation (EU) No.1112/2014*, Event categorizations and Remarks, pag.4-5.

⁷ Assuming that m events occur in a year, if n is the value of a cell in the “number of events” column of table/par.4.2, it means that, among the m occurred events, n events can be described by the specific category C_i ; we can note that each single event could be described by more than one category C_i (i.e. $C_1, C_2 \dots$).

[✓n] Note to the **Tab.4.2-Incident Categories** [in 4.2. Annex IX Incident Categories]
to the **Tab.4.4-SECE** [in 4.4 Failures of Safety and Environmental Critical Elements (SECEs)]

The categorization of each event, mentioned in the report, is communicated on the basis of the first observations made after its occurrence, in accordance with the provisions of Regulation (EU) No. 1112/2014, for the purposes of statistical reporting; the dynamics of the accident can be defined only at the conclusion of in-depth technical investigations and the related consequent actions.

[✓o] Note to the **Tab.4.2- Incident Categories** [in 4.2. Annex IX Incident Categories]
to the **Tab.4.3-Injuries** [in 4.3 Total number of fatalities and injuries]

1. In the tables 4.2 and 4.3, injuries refer to events occurred during offshore activities and recorded for statistical purpose (they are fatalities or events causing absence from the workplace, exceeding 3 days). Injury is classified as:
 - *mild* if the absence from the workplace is less than or equal to 30 days;
 - *serious* if the absence from the workplace is more than 30 days;
 - fatal injury is mentioned as fatality.
2. The table 4.2 refers only to injuries and fatalities related to major accidents; the table 4.3 refers to events also not related to major accidents.
3. In the table 4.3 , the row "*Total number of injuries*" refers to the sum of fatalities, serious and mild injuries which occurred in 2019 during the offshore activities.
4. In 2019, 16 injuries were recorded. During typical operations of the O&G sector, 11 injuries occurred (1 fatal, 6 serious and 4 mild): in particular, one fatality and two serious injuries were caused by the same accident; among the O&G injuries, we also recorded 1 mild injury, during diving activities. The remaining 5 injuries (3 serious and 2 mild) are not related to O&G activities but, in any case, they involved personnel operating on the platforms during their stay on them, even out of working hours.