

Revised data collection format for the Annual OSPAR Report on Discharges, Spills and Emissions from Offshore Oil and Gas Installations

(OSPAR Agreement 2012-08,¹

General

1. This reporting format for OSPAR discharges, spills and emissions from offshore oil and gas installations consists of two parts: this guidance document and an Excel workbook for completing annual data submissions (Tables 1-9), described below. This guidance and the Excel workbook can be downloaded from the OSPAR website under Work Areas/Offshore Industry/Reporting Formats & Deadlines/Discharges, Spills and Emissions from Offshore Oil and Gas Installations.
2. The deadline for submission of the annual national data sets for discharges, spills and emissions from offshore oil and gas installations to the Secretariat is **1 November**. When entering your national data, please follow the guidelines given below.
3. **Please do not change the table templates (e.g. by insertion of new columns or rows). If any changes are deemed necessary, please inform the Secretariat.**
4. Please submit completed files to olle.akesson@ospar.org, with cc to secretariat@ospar.org.

Issues

5. Any Contracting Party encountering difficulties in using the digital files or with the submission of files is kindly requested to inform the Secretariat and assistance will be offered. The Secretariat would welcome any comments on, or suggestions for improvement of, the procedure of digital data submission.

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¹ Replacing Agreement 2005-14 updated in 2009, and 2019. English only

Guidance for reporting

6. All boxes must be filled:
0 is zero
NI = no information, i.e. unknown data (data not collected, but different from measured 0)
ND = not determined i.e. data has been collected but not in reportable format [or cannot be reported]
NA = not applicable, i.e. the criterion is not relevant. It will be considered as 0 in sums and totals
7. Any change of more than 20% in a value from one year to another must have an explanatory note in order to make sure that there is no artifact.
8. The number of significant digits given must be meaningful and useful.

Conversion factors for the calculation of tonnes of oil equivalent as required by Table 8

Source: *Environmental data collection, OGP User's Guide*, <http://www.iogp.org.uk>

9. These conversion factors should be used only when the data are available with a standard which differs from the required one, and when the ad hoc conversion factor is not known (for example when data related to the quantity of oil produced are expressed in barrels of oil equivalent (BOE) and when the mean density of the production is not known. The assumptions underlying the conversion factors are:

| | |
|---|-------------------------|
| density of the oil: | 0,84 t m ⁻³ |
| density of the condensate: | 0,75 t m ⁻³ |
| density of the associated gas: | 1 kg m ⁻³ |
| density of the non-associated gas: | 0,80 kg m ⁻³ |
| density of chemicals, solvents, and all other products spilled: | 1,0 t m ⁻³ |

10. Conversion factors:

| | |
|---|---------------------------------------|
| 1 bbl of oil $\approx 0,159 \text{ m}^3$ | $\approx 0,134 \text{ toeq}$ |
| 1 bbl of condensate | $\approx 0,119 \text{ toeq}$ |
| 1000 m ³ of associated gas | $\approx 1,00 \text{ toeq}$ |
| 1000 m ³ of non-associated gas | $\approx 0,80 \text{ toeq}$ |
| 1000 ft ³ of associated gas $\approx 28.3 \text{ m}^3$ | $\approx 0,0283 \text{ toeq}$ |
| 1000 ft ³ of non-associated gas $\approx 28.3 \text{ m}^3$ | $\approx 0,0226 \text{ toeq}$ |
| 1000 bbl per day | $\approx 48910 \text{ toeq per year}$ |

Glossary

11. Glossary:

BTEX means Benzene, Toluene, Ethylbenzene, Orthoxylene, Metaxylene and Paraxylene

Cuttings means solid material removed from drilled rock together with any solids and liquids derived from any adherent drilling fluids.

Drilling fluid means base fluid together with those additional chemicals which constitute the drilling system.

Oil-based fluids (OBF) means low aromatic and paraffinic oils and those mineral oil-based fluids that are neither synthetic fluids nor fluids of a class whose use is otherwise prohibited.

Organic-phase drilling fluid (OPF) means an organic-phase drilling fluid, which is an emulsion of water and other additives in which the continuous phase is a water-immiscible organic fluid of animal, vegetable or mineral origin.

Excel table templates

Offshore_Discharges_Reporting_Format.xls:

Table 1: Number of installations with emissions and discharges covered by OSPAR measures

Table 2: Produced and displacement water

Table 3: Installations exceeding the 30 mg/l performance standard for dispersed oil

Table 4: Organic phase drilling fluids (OPF) and cuttings

Table 5: Accidental spillages of oil and chemicals

Table 6: Emissions to air

Table 7: Use and discharge of offshore chemicals

Table 8: Gross production of the year

Table 9: Country reporting on Risk Based Assessments (RBA)

rba_reporting_format.xls

Table 1: Installations included in the Risk Based Approach

Instructions for reporting data per sheet:

Offshore_Discharges_Reporting_Format.xls:

Table 1: Number of installations with emissions and discharges covered by OSPAR measures

Table 1 captures the number of installations to which OSPAR measures apply, and its evolution. All installations with local discharge points should be counted, not installations whose discharges are forwarded to other installations. Platforms are reported separately, even when they are joined by walkways or bridges. Each Contracting Party will report according to its own counting rules.

| | | |
|-------------------------|-----|---|
| Country | | Name of reporting Contracting Party |
| Year | | Year of discharge reporting |
| Production* | Oil | Installations producing oil and gas with discharges to the OSPAR area. |
| | Gas | Installations producing gas and condensate with discharges to the OSPAR area |
| Subsea | | Subsea installations |
| Others | | Other installations, e.g. offshore underground storage, loading buoys, riser platforms with discharges or emissions |
| Number of wells drilled | | The number of wells drilled and completed in the reporting calendar year, including geological sidetracks. |

*Installations are reported as "Production" when production has started, even if drilling is still undergoing. Storage installations are considered as "Others".

Table 2: Produced and displacement water

Table 2 refers to all waters discharged to the sea (except cooling and sewage water) the quality of which should fit with OSPAR measures (cf OSPAR Recommendation 2001/1). Drainage water is considered so far of such little consequence that there is no reporting requirement for OSPAR, nevertheless Contracting Parties are encouraged to measure it.

| | | |
|---|--|---|
| Country | | Name of reporting Contracting Party |
| Year | | Year of discharge reporting |
| Produced Water | | Water which is produced in oil and/or gas production operations and includes formation water, condensation water and re-produced injection water; it also includes water used for desalting oil (cf OSPAR Recommendation 2001/1, as amended, definition of produced water) |
| Displacement Water | | Water which is the seawater which is used for ballasting the storage tanks of the offshore installations (when oil is loaded into the tanks, the water is displaced, and is discharged to the seas; when oil is offloaded to shuttle tanks, seawater is introduced into the storage tanks to replace the offloaded oil) |
| Total number of installations | | The sum of installations discharging produced or displacement water |
| Annual quantity of water discharged (m ³) | | Total quantity of produced and displacement water discharged to the sea during the reporting year |
| Annual average dispersed oil concentration (mg/l) | | Dispersed oil is the oil measured according to the method described in §7.2 of OSPAR |

| | |
|---|--|
| | Recommendation 2006/4 and specified in OSPAR Agreement 2005-15. The annual average is determined by the total weight of oil discharged per year by the installation, divided by the total volume of produced water discharged during the same period |
| Total amount of dispersed oil discharged (tonnes) | The sum of dispersed oil discharged during the reporting year. Dispersed oil is the oil measured according to the method described in §7.2 of OSPAR Recommendation 2006/4 and specified in OSPAR Agreement 2005-15 |
| Annual average BTEX concentration (mg/l) | BTEX determined according to 1.1 of OSPAR Recommendation 2001/1, as amended by OSPAR Recommendation 2011/8, are considered as dissolved oil. The annual average is determined by the total weight of BTEX discharged per year by the installation, divided by the total volume of produced water discharged during the same period |
| Total amount of BTEX discharged (tonnes) | The sum of BTEX discharged during the reporting year. BTEX determined according to 1.1 of OSPAR Recommendation 2001/1, as amended by OSPAR Recommendation 2011/8, are considered as dissolved oil |
| Number of installations injecting water | Count of the number of installations injecting produced or displacement water |
| Annual quantity of water injected (m ³) | Volume of produced or displacement water injected (excluding sea water for pressure maintenance) |

Table 3: Installations exceeding the 30 mg/l performance standard for dispersed oil

Table 3 concerns installations for which the average annual dispersed oil content of the produced water discharged to the sea exceeds the 30 mg/l performance standard as defined in OSPAR Recommendation 2001/1 for the Management of Produced Water from Offshore Installations (as amended).

| | |
|--|---|
| Country | Name of reporting Contracting Party |
| Year | Year of discharge reporting |
| Installation | Name of the installation where the discharge takes place |
| Type of installation | Select from: Oil, Gas, Other |
| Quantity of water discharged during the year (10 ³ m ³) | Total volume of water discharged during the year of discharge reporting |
| Annual average concentration of dispersed oil (mg/l) | Annual average oil content should be calculated on the basis of the total weight of oil discharged per year by the installation divided by the total volume of produced water discharged during the same period |
| Total amount of dispersed oil discharges (tonnes/year) | Total mass of dispersed oil discharged during the year of reporting |
| Total amount of dispersed oil during the period exceeding the performance standard (tonnes per year) | Calculated according to the formula: (annual average concentration of dispersed oil – 30)*volume discharged |

Table 3a: Installations which did not meet the 30mg/l performance standard and discharging more than 2 tonnes of dispersed oil per year

| | |
|--|---|
| Country | Name of reporting Contracting Party |
| Year | Year of discharge reporting |
| Installation/Operator | Name of the installation where the discharge takes place and the name of the operator of the installation, separated by a "/" |
| Type of installation | Select from: Oil, Gas, Other |
| Annual average concentration of dispersed oil (mg/l) | Calculated according to the formula: (total weight of oil discharged per year by the installation)/(total volume of produced water discharged during the same period) |
| Treatment equipment installed | A text list of the treatment equipment installed on the installation |
| Reasons for not achieving the standard | Text explanation for exceeding the performance standard |
| Action being taken | Text explanation of actions being taken in response to exceeding the standard |

Table 3b: Installations which did not meet the 30mg/l performance standard and discharging less than 2 tonnes of dispersed oil per year

| | |
|--|---|
| Country | Name of reporting Contracting Party |
| Year | Year of discharge reporting |
| Installation/Operator | Name of the installation where the discharge takes place and the name of the operator of the installation, separated by a "/" |
| Type of installation | Select from: Oil, Gas, Other |
| Annual average concentration of dispersed oil (mg/l) | Calculated according to the formula: (total weight of oil discharged per year by the installation)/(total volume of produced water discharged during the same period) |
| Treatment equipment installed | A text list of the treatment equipment installed on the installation |

Table 4: Organic phase drilling fluids (OPF) and cuttings

Any use of drilling fluids regulated by OSPAR Decision 2000/3 on the Use of Organic-Phase Drilling Fluids (OPF) and the Discharge of OPF-Contaminated Cuttings should be reported. It concerns all OPF and includes *inter alia* Oil Based Fluids (OBF), as defined in OSPAR Decision 2000/3.

| | |
|--|---|
| Country | Name of reporting Contracting Party |
| Year | Year of discharge reporting |
| OBF | As defined in OSPAR Decision 2000/3: "Oil-based fluids (OBF)" means low aromatic and paraffinic oils and those mineral oil-based fluids that are neither synthetic fluids nor fluids of a class whose use is otherwise prohibited |
| Other OPF | Non-OBF OPF, including synthetics |
| Total amount of OPF used (fluid only) (tonnes) | Sum of the amount of OPF used in operations |
| Number of wells drilled with OPF | An OPF well is drilled with at least one section of the |

| | | |
|--|--|---|
| | | well with OPF |
| OPF cuttings discharged to the sea after treatment | Number of wells concerned | Number of wells drilled where cuttings contaminated with OPF was discharged |
| | Amount of cuttings discharged (tonnes) | Sum of the amount of cuttings contaminated with OPF discharged |
| | Average OP concentration of cuttings (%) | OP is the acronym for Organic Phase; it means oil in the case of OBF, the organic phase mixture for the other OPFs. Calculated according to the formula: (total weight of OP discharged with cuttings per year)/(total weight of cuttings discharged during the same period). Reported as a percentage. |
| | Total amount of OP discharged (tonnes) | Report the estimated amount of OP discharged to the sea, through the cuttings discharged |
| OPF cuttings injected | Number of wells concerned | Number of wells drilled where cuttings contaminated with OPF was injected into disposal wells |
| | Total amount of cuttings injected (tonnes) | Report the estimated amount of cuttings injected into disposal wells, excluding the water added for slurryfication |
| Cuttings transported to shore (tonnes) | | Report the amount of cuttings transported to shore, for treatment and/or disposal |

Table 5: Accidental spillages of oil and chemicals

The total quantity of chemicals spilled are reported in this Table. The total quantities of specific components spilled are reported in Table 7.

| | | |
|---------------------------------|--------------|---|
| Country | | Name of reporting Contracting Party |
| Year | | Year of spillage reporting |
| Oil spillages | | Oil spillages, including flaring spillages |
| Chemicals | | Chemical spillages |
| Number | ≤ tonne | Count of spillages under or equal to one tonne |
| | > tonne | Count of spillages more than one tonne |
| | Total number | Total count of spillages |
| Total quantity spilled (tonnes) | ≤ tonne | Quantity spilled from spillages less than or equal to one tonne |
| | > tonne | Quantity spilled from spillages more than one tonne |
| | Total number | Total mass of spillages |

Note: Contracting Parties should provide additional information on the cause, environmental effects and remedial action taken in relation to significant spills. Determination of whether a spill is significant should be based upon expert judgement.

Table 6: Emissions to air

Emissions should be measured/evaluated according to well established guidelines

| | | |
|--|--|--|
| Country | | Name of reporting Contracting Party |
| Year | | Year of discharge reporting |
| CO ₂ (10 ³ tonnes) | | Carbon dioxide emitted, not the carbon dioxide equivalents of the various greenhouse gases. Carbon monoxide (CO) is not included |
| NO _x (tonnes) | | The sum of nitric oxide (NO) and nitric dioxide (NO ₂) |

| | |
|--------------------------|---|
| | expressed as NO ₂ equivalent. Nitrous oxide (N ₂ O) is not included as a component of NO _x |
| nmVOCs (tonnes) | Volatile Organic Compounds (VOCs) comprise all hydrocarbons, other than methane, released to the atmosphere |
| CH ₄ (tonnes) | CH ₄ corresponds to the methane released to the atmosphere, from any source |
| SO ₂ (tonnes) | Sulphur dioxide emitted. |

Table 7: Use, discharge and spills of offshore chemicals

For definitions refer to OSPAR Recommendation 2010/4 (as amended) on HMCS Pre-screening. To avoid double reporting in this table, the first appropriate category for the substance shall be chosen. This means that LCPA and other candidates for substitution are chosen first, and PLONOR substances are chosen last.

| | |
|---|---|
| Country | Name of reporting Contracting Party |
| Year | Year of discharge reporting |
| Pre-screening category | According to OSPAR Recommendation 2010/4 on a Harmonised Pre-screening Scheme for Offshore Chemicals and the terminology used in this Recommendation |
| PLONOR | Substance on OSPAR List of Substances Used and Discharged Offshore which are Considered to Pose Little or no Risk to the Environment (PLONOR) (Agreement Number: 2012-6). REACH Annex IV and Annex V substances to be included. |
| List of Chemicals for Priority Action | Substance listed in the OSPAR List of Chemicals for Priority Action (LCPA) (including its updates) (Agreement Number: 2004-12). List of Substances of Possible Concern (LSPC), REACH Annex XVII substances and substances on the REACH Authorisation list should not be included here but reported separately. |
| Inorganic LC ₅₀ or EC ₅₀ < 1 mg/l | Inorganic substance with LC ₅₀ or EC ₅₀ less than 1 mg/l |
| Biodegradation < 20% | Biodegradation of the substance is less than 20% in OECD 306, Marine BODIS or any other accepted marine protocols; or less than 20% during 28 days in freshwater (ready test); or include substances with the half-life values greater than 60 and 180 days in marine simulation tests (OECD 308 and 309), according to REACH criteria |
| Substance meets two of three criteria | Substance meets two of following three criteria: i) biodegradation less than 60% in 28 days (OECD 306 or any other OSPAR-accepted marine protocol); or in the absence of valid results for such tests; less than 60% in 28 days (OECD 301B, 301C, 301D, 301F, Freshwater BODIS); or less than 70% in 28 days (OECD 301A, 301E), or: ii) bioaccumulation: BCF > 100 or log Pow >= 3 and molecular weight < 700, or if the conclusion of a weight of evidence under Appendix 3 of OSPAR Agreement 2008-5 is negative, or; |

| | |
|--|---|
| | iii) toxicity: LC ₅₀ < 10 mg/l or EC ₅₀ < 10mg/l; if toxicity value < 10mg/l are derived from limit tests to fish, actual fish LC50 data should be submitted |
| Inorganic, LC ₅₀ or EC ₅₀ > 1 mg/l | Inorganic substance with LC ₅₀ or EC ₅₀ > 1mg/l |
| Ranking | Substance does not meet the abovementioned criteria (A-G) and should therefore be ranked according to OSPAR Recommendation 2000/4 on a Harmonised Pre-screening Scheme for Offshore Chemicals (including its updates) and the terminology used in this Recommendation |
| Total | Sum of the pre-screening category values |
| Amount used (kg) | Calculate the amount of substances used on the basis of §1.6 of Annex 1 of OSPAR Recommendation 2010/3 on a Harmonised Offshore Chemical Notification Format (HOCNF), including its updates. |
| Amount discharged (kg) | Discharge (kg) can be calculated as: i) calculation based on the mass balance studies, or; ii) calculation based on the fraction released as calculated according to the relevant chapters described in the CHARM manual version 1.4 |
| Amount spilled (kg) | The sum of all chemicals spilled, including those related to accidental spillage of drilling fluids. Water should be excluded from the calculated totals. |

Table 8: Gross production of the year

The information from this table is not to be included on a country-by-country basis in the Annual OSPAR Report on Discharges, Spills and Emissions from Offshore Oil and Gas Installations, but is useful for total trend analysis in the assessment of the report.

| | |
|-------------------|---|
| Country | Name of reporting Contracting Party |
| Year | Year of discharge reporting |
| Quantity (toeq) | Production quantities in Tonnes of Oil Equivalent (toeq). Calculated as per section 9 & 10. |
| Production of oil | Quantity of produced oil |
| Production of gas | Quantity of produced gas |
| Total production | Sum of quantities produced |

Table 9: Country reporting on RBA assessments

| | | |
|--|--|---|
| Country | Name of reporting Contracting Party | |
| Year | Year of discharge reporting | |
| Installation OSPAR Inventory ID | Installation ID taken from the OSPAR Offshore Installation Inventory | |
| Name or identifier of installation | Name or code use to identify the installation | |
| Operator | Operator of the installation | |
| Predominant hydrocarbon (Gas/Cond/Oil) | Hydrocarbon produced by the installation | |
| Reassessment (Y/N) | Y/N, is this reporting a reassessment? | |
| Produced water assessment | Chemical analysis (Y/N) | Y/N, chemical analysis carried out? |
| | Whole effluent toxicity (Y/N) | Y/N, whole effluent toxicity carried out |
| | Whole effluent assessment (Y/N) | Y/N, whole effluent assessment carried out |
| | Substance level (Y/N) | Y/N, substance level assessment carried out |

| | |
|---|---|
| Key substances or group of substances identified in Produced Water likely to pose the greatest risk to the marine environment, if known | List substances or groups of substances having the greatest contribution to the overall risk assessment |
| Field monitoring (Y/N) | Y/N, has field monitoring been undertaken in the vicinity of the installation |
| Criteria used to assess risk | EIF level, modelling used, PEC/PNEC ratio or other criteria |
| Risk adequately controlled? (Y/N) | Y/N, Is the risk from the discharge determined to be acceptable with no further risk reduction measures required. |
| BAT/BEP assessment undertaken? (Y/N) | Y/N, has the risk identified from the RBA been assessed for BAT/BEP |
| Chemical substitution, measure or technology implemented | Details of any substitution or measures implemented to reduce risk |
| Comments | Additional information about the RBA assessment |