OSPAR COMMISSION

Protecting and conserving the North-East Atlantic and its resources

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

(Reference Number: 2005-14, [updated 2009])

1. This data collection format for discharges, spills and emissions from offshore oil and gas installations consists of three parts:

- Information on how the data should be submitted to the OSPAR Secretariat, section 1 below;
- Instructions and explanations for filling in the tables, section 2 below;
- A set of Excel tables for filling in the annual data (Tables 1-8), section 3.

This format and the Excel tables can be downloaded form the OSPAR website under Work Areas/Offshore oil and gas industry/reporting. This format is revised and updated when necessary.

1. Submission of the data for the OSPAR Report on Discharges, Spills and Emissions from Offshore Oil and Gas Installations

Data submission

Deadline

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 2009**. When entering your national data, please follow the guidelines given below.

Via e-mail

3. The Secretariat prefers to receive files through electronic mail at its e-mail address (**sylvie.ashe@ospar.org**), copy to Secretariat@ospar.org. Please make sure that you save your files in the correct programme version (cf. *Saving of data* below) before transmitting them.

Via ftp-server

4. If you experience problems with email transmission of the files, for example because of the size of the file, please send the file via a File Transfer Protocol (ftp) server.

How to use the files

Opening of files

6. The file **format08.xls** is created in Microsoft EXCEL 2003®. If you experience any problems in working with EXCEL 2003®, then please contact the Secretariat who will then provide an alternative programme format.

Entering of data

7. Please enter your national data in the respective columns and rows of the table templates **taking into account the unit given in the column header**.

8. If there is no information available, then this should be indicated as "NI". Other indications/footnotes should follow as closely as possible the definitions given throughout this data collection format for the Annual OSPAR Report on Discharges, Spills and Emissions from Offshore Oil and Gas Installations.

9. **Please do not change the table templates (*e.g.* by insertion of new columns or rows). If such changes are deemed necessary, please inform the Secretariat.**

Saving of data and additional text

9. Please save your data files in MS EXCEL version 2003.

Difficulties

10. Any Contracting Party anticipating difficulties in using the digital files or with the submission of files via e-mail, is kindly requested to inform the Secretariat, in which case an ad hoc solution will be developed on a bilateral basis. The Secretariat would welcome any comments on, or suggestions for improvement of, the procedure of digital data submission.

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2. General instructions

1. All boxes must be filled:

   0 is zero!

   NI means No Information available, *i.e*. unknown data (data not collected, but different from 0)

   NA means that the criterion is not relevant (Not Applicable). It will be taken as 0 in sums and totals.

2. 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.

3. The number of digits given must be meaningful and useful:

   The number of digits must be useful: *e.g*. report 25,3 tonnes of oil discharged, not 25,345.

   The number of digits for estimates must be in line with the accuracy of the estimate (*e.g.* report -3 200 103 tonnes CO_2, not -3 215,476 103 !)

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.ogp.org.uk]

4. 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:

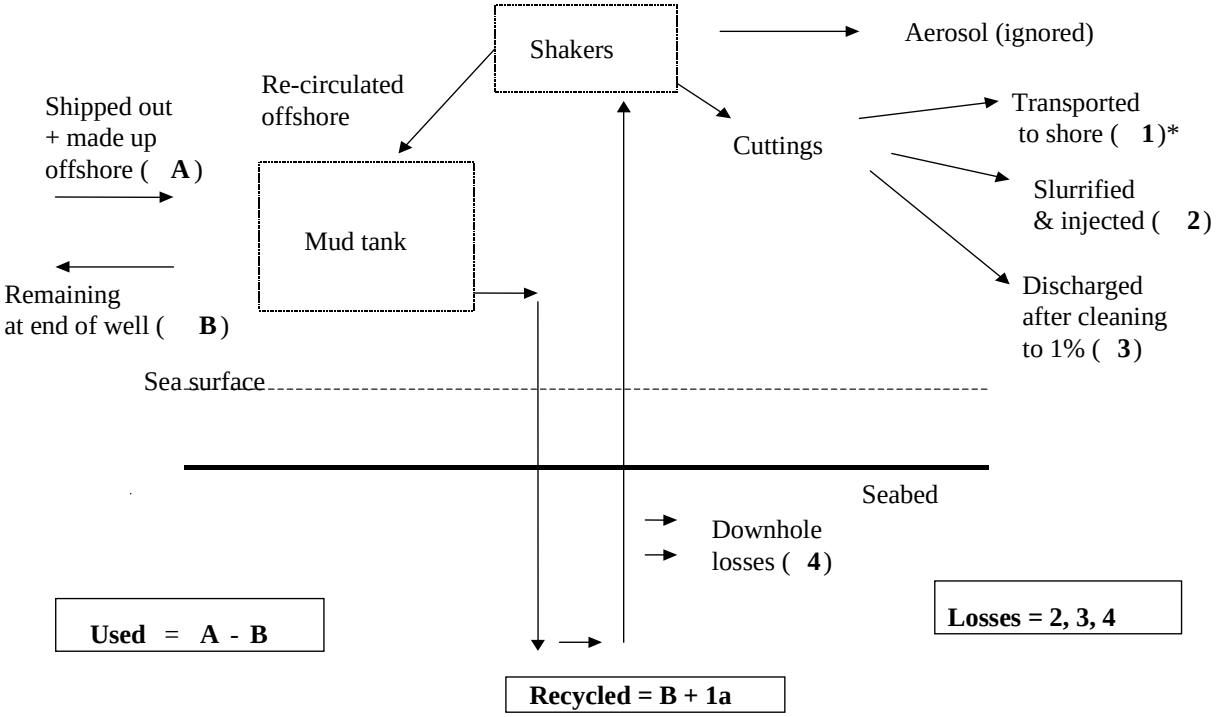
density of the oil:	0,84 t m^{-3}
density of the condensate:	0,75 t m^{-3}
density of the associated gas:	1 kg m^{-3}
density of the non-associated gas:	0,80 kg m^{-3}
density of chemicals, solvents, and all other products spilled:	1,0 t m^{-3}

5. Conversion factors:

1 bbl of oil ≈ 0,159 m^3	≈0,134 toeq
1 bbl of condensate	≈ 0,119 toeq
1000 m^3 of associated gas	≈ 1,00 toeq
1000 m^3 of non-associated gas	≈ 0,80 toeq
1000 ft^3 of associated gas ≈ 28.3 m^3	≈ 0,0283 toeq
1000 ft^3 of non-associated gas ≈ 28.3 m^3	≈ 0,0226 toeq
1000 bbl per day	≈ 48910 toeq per year

6. The OPF Mass Balance Reporting flow chart illustrates the mechanism to establish the tonnage reported. The chart has been brought forward from the former reporting format for reporting on effectiveness of implementation of Decision 2000/3, Annex 5 to OIC 2001 Summary Record

Figure 1 - OPF MASS BALANCE REPORTING



* Transported to shore (1) consists of a) for recycling, b) incineration, c) landfill, d) other

Glossary

7. Glossary:

OP is the acronym for organic phase.

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.

Base fluid means the water immiscible fluid which forms the major part of the continuous phase of the OPF.

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.

Synthetic fluid means highly refined mineral oil-based fluids and fluids derived from vegetable and animal sources.

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

Whole OPF means OPF not adhering to or mixed with cuttings.

WBM is the acronym for water-based muds.

3. Excel table templates

8. The following tables can be found on the OSPAR website under Work Areas/Offshore oil and gas industry/reporting:

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

Revised Data collection format for the Annual OSPAR Report on Discharges, Spills and Emissions from Offshore Oil and Gas Installations (Reference Number: 2005-14, [updated 2009])

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

This table is for setting the scene. Its purpose is to capture 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.

Country:
Year:

Production [B]		Subsea [E]	Drilling [F]	Other [G]	**Total**
Oil [C]	Gas [D]				

A. Platforms are reported separately, even when they are joined by walkways or bridges.
B. Installations are reported as "Production" when production has started, even if drilling is still undergoing. Storage installations are considered as "Production".
C. Installations which produce oil and gas are considered as "oil installations".
D. Installations which produce gas and condensate are considered as "gas installations".
E. Report one installation per cluster of well heads.
F. Report exploration & development drilling rigs with no simultaneous production only. Report in years-equivalent of activity: a rig used 3 months only will count for 0.25. The figure reported in the table will be rounded up to the nearest integer.
G. Example: offshore underground storage, loading buoys, riser platforms with discharges or emissions

Table 2: Produced and Displacement Water

This table refers to all waters discharged to the sea (except cooling and sewage water) the quality of which should fit with OSPAR measures (cf. OSPAR Recommenc for the Management of Produced Water from Offshore Installations, as amended by OSPAR Recommendation 2006/4). Drainage water is considered so far of such li that there is no reporting requirement for OSPAR. Nevertheless Contracting Parties are encouraged to measure it.

Country:
Year:

	Total number of installations [C]	Annual quantity of water discharged [D]	Annual average oil content (mg/l)			Total amount of oil discharged (tonnes)			Number of installations injecting water [H]	Annual quantity of water injected [H]
		m^3	dissolved [E]	dispersed [F]	total [G]	dissolved [E]	dispersed [F]	total [G]		m^3
Produced Water [A]										
Displacement Water [B]										

A. "Produced water" means 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 (citation from OSPAR Recommendation 2001/1 (as amended), definition of produced water).
B. "Displacement water" 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 sea; when oil is downloaded to shuttle tanks, seawater is introduced into the storage tanks to replace the downloaded oil).
C. Total number of installations discharging produced water or displacement water.
D. Total quantity of produced water and displacement water to the sea during the year.
E. Aromatic hydrocarbons determined according to § 7.4 of the OSPAR Recommendation 2006/4 are considered as dissolved oil. The reported value may be an estimate.
F. Dispersed oil is, by definition, the oil measured according to the method described in § 7.2 of the OSPAR Recommendation 2006/4 and specified in the OSPAR Agreement 2005-15
G. Total = dissolved (or aromatic hydrocarbons)+ dispersed
H. Produced or displacement water only (excluding sea water for pressure maintenance).

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

This table concerns installations for which the average annual 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:
Year:

Installation [A]	Type of installation [B]	Quantity of water discharged during the year (10^3 m^3)	Annual average oil content [C] (mg/l)			Total amount of oil discharged (tonnes per year)			Total amount of dispersed oil during the period exceeding the performance standard (tonnes per year)
			dissolved	dispersed	total	dissolved	dispersed	total	
Total		**0**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**0**	**0**	**0**	

A. Name of the installation where the discharge takes place.
B. Same categories as in table 1: Oil (O), Gas (G), Sub-sea (S), Other (oth) installations.
C. The 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.

Table 3a. Information on installations which did not meet the 30 mg/l performance standard

This table concerns installations for which the average annual 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

Country:
Year:

Installation/Operator [A]	Type of installation [B]	Annual average oil content mg/l [C]	Reasons for not achieving the standard	Action being taken

A. Name of the installation where the discharge takes place.
B. Same categories as in table 1: Oil (O), Gas (G), Sub-sea (S), Other (oth) installations.
C. The 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.

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

Country:
Year:

Type of drilling fluid	Total amount of OPF used (tonnes)	OPF Cuttings discharged to the sea			OPF cuttings injected		Cuttings transported to shore [E] (tonnes)
		Number of wells concerned	Average OP [B] concentration on cuttings (g/kg)	Total amount of OP discharged [C] (tonnes)	Number of wells concerned	Total amount of cuttings injected [D] (tonnes)	
OBF [F]							
Other OPF [G]							
Total							

A. 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.

B. OP is the acronym for organic phase: it means oil in the case of OBF, the organic phase mixture for the other OPFs.

C. Report the estimated amount of OP discharged to the sea, through the cuttings discharged.

D. Report the estimated amount of cuttings injected into disposal wells, excluding the water added for slurryfication.

E. Report the amount of cuttings transported to shore, for treatment and/or disposal.

F. As defined in OSPAR Decision 2000/3.

G. Non-OBF OPF, including synthetics.

Table 5: Accidental spillages of oil and chemicals

Country:
Year:

Type	Number			Quantity (tonnes)		
	≤ 1 tonne	> 1 tonne	Total number	≤ 1 tonne	> 1 tonne	Total amount
Oil spillages*						
Chemicals [A]						

A. Total quantity of chemicals spilled should be equal to the sum of data reported in related column in Table 7

* Flaring spillages are included in oil spillages

Table 6: Emissions to air

Emissions should be measured/evaluated according to well established guidelines.

Country:
Year:

CO_2 [A] (10^3 tonnes)	NO_x [B] (10^3 tonnes)	nmVOCs [C] (10^3 tonnes)	CH_4 [D] (10^3 tonnes)	SO_2 (10^3 tonnes)

A. CO_2 is carbon dioxide emitted, not the carbon dioxide equivalents of the various greenhouse gases. Carbon monoxide (CO) is not included.
B. NO_x is the sum of nitric oxide (NO) and nitrogen dioxide (NO_2) expressed as NO_2 equivalent. Nitrous oxide (N_20) is not included as a component of NO_x.
C. VOCs (Volatile Organic Compounds) comprise all hydrocarbons, other than methane, released to the atmosphere.
D. CH_4 corresponds to the methane released to the atmosphere, from any source.

Table 7: Reporting format for the use and discharge of offshore chemicals

Country:
Year:

Prescreening category [A]	Amount used [I], kg	Amount discharged [J,K] kg	Amount spilled [L], kg
PLONOR [B]			
List of Chemicals for Priority Action [C]			
Inorganic LC_{50} or EC_{50} < 1 mg/l [D]			
Biodegradation < 20% [E]			
Substance meets two of three criteria [F]			
Inorganic, LC_{50} or EC_{50} > 1 mg/l [G]			
Ranking [H]			
Total			

Category

A. 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.

B. 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: 2004-10).

C. Substance listed in the OSPAR List of Chemicals for Priority Action (LCPA) (including its updates) (Agreement Number: 2004-12).

D. Inorganic substance with LC_{50} or EC_{50} less than 1 mg/l.

E. 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).

F. Substance meets two of the 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% (OECD 301B, 301C, 301D, 301F, Freshwater BODIS); or less than 70% (OECD 301A, 301E);

II. bioaccumulation: BCF > 100 or log Pow >= 3 and molecular weight <700;

III. toxicity: LC50 < 10mg/l or EC50 < 10mg/l; if toxicity values <10 mg/l are derived from limit tests to fish, actual fish LC50 data should be submitted.

G. Inorganic substance with LC_{50} or EC_{50} over 1 mg/l.

H. Substance does not fulfill the above mentioned 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.

I. Calculate the amount of substances on the basis of §1.6 of Appendix 1 of OSPAR Recommendation 2000/5 on a Harmonised Offshore Chemical Notification Format (HOCNF), including its updates

Discharge

The following ways can be used to calculate the amount of substance discharged in [kg].

J. Calculation based on the mass balance studies.

OR

K. Calculation based on the fraction released as calculated according to the relevant chapters described in the CHARM manual version 1.4.

Spillage

L. All chemical spilled, including those related to accidental spillage of drilling fluids

Important! To avoid double reporting, the first appropriate category for the substance shall be chosen. This means that the PLONOR substances are chosen first, and the ranking substances are chosen last.

Table 8: Gross production of the year [A]

This data should include all hydrocarbons produced by the wells including flaring and onsite combustion.
Productions of oil and gas can be given using the most convenient unit. Tick the appropriate box.
Total production MUST be given in tonnes of oil equivalent (toeq)

Country:
Year:

	Quantity	**Unit used** (tick off)			
		metric tonne	Standard Cubic meter	tonne of oil equivalent	other (specify)
Production of oil					
Production of gas					
Total production in oil equivalents (toeq) [B]					

A. This information 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.
B. Use conversion factors listed in general instructions