



Discharges, spills and emissions from offshore oil  
and gas installations in 2007

*Including assessment of data reported in 2006 and 2007*

### OSPAR Convention

The Convention for the Protection of the Marine Environment of the North-East Atlantic (the "OSPAR Convention") was opened for signature at the Ministerial Meeting of the former Oslo and Paris Commissions in Paris on 22 September 1992. The Convention entered into force on 25 March 1998. It has been ratified by Belgium, Denmark, Finland, France, Germany, Iceland, Ireland, Luxembourg, Netherlands, Norway, Portugal, Sweden, Switzerland and the United Kingdom and approved by the European Community and Spain.

### Convention OSPAR

La Convention pour la protection du milieu marin de l'Atlantique du Nord-Est, dite Convention OSPAR, a été ouverte à la signature à la réunion ministérielle des anciennes Commissions d'Oslo et de Paris, à Paris le 22 septembre 1992. La Convention est entrée en vigueur le 25 mars 1998. La Convention a été ratifiée par l'Allemagne, la Belgique, le Danemark, la Finlande, la France, l'Irlande, l'Islande, le Luxembourg, la Norvège, les Pays-Bas, le Portugal, le Royaume-Uni de Grande Bretagne et d'Irlande du Nord, la Suède et la Suisse et approuvée par la Communauté européenne et l'Espagne.

## Acknowledgement

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# Executive Summary

## ***OSPAR collects annually data on discharges, spills and emissions from offshore installations***

This report presents in Part A of Section 3 the discharges, spills and emissions data from offshore installations for 2007. The cumulative data are presented in Part B of Section 3. Section 2 presents the assessment of the data reported for 2006 (OSPAR publication number 380/2008) and 2007, and the trends over the last 9 years.

## ***Discharges of oil continue to decrease***

The total *production of hydrocarbons* in OSPAR's Maritime Area has decreased by 11% in the period 2001-2007.

The total quantity of *dispersed oil (aliphatic oil) discharged* to the sea (from produced water, displacement water and accidental spillage) show a decreasing trend over the last few years, but increased to 9 025 tonnes in 2007 compared to 8 756 tonnes in 2005. The main reason for this increase was a large oil spill of 3 815 tonnes offshore Norway in 2007.

As in previous years, *produced water and displacement water* are the main contributors to the oil discharges from offshore oil and gas activities, representing 98% of the total amount of oil discharged to the sea in 2006, but due to the large oil spill, only 57% in 2007. Flaring is a minor source of oil discharges.

## ***The concentration of dispersed oil in produced water is below the performance standard for most installations***

The annual average dispersed oil content in produced water was 17,81 mg/l in 2006 and 12,5 mg/l in 2007, well below the current performance standard for dispersed oil of 30 mg/l for produced water discharged into the sea. The drop in 2007 is to some extent due to a change in method of analysis.

In 2007, there were 22 *installations which exceeded the 30 mg/l performance standard* for dispersed oil in produced water. Despite the efforts made to reduce the number of installations which have poor records, there are still some installations which raise significant concern.

## ***Most chemicals used and discharged offshore are considered to pose little or no risk***

The discharge of *organic-phase drilling fluids (OPF)* (non-oil-based fluids) ceased in 2005.

Since 2001 *use and discharge of chemicals* have been regulated by OSPAR. The first reporting year for which all major contributors provided data was 2003. The total quantity of chemicals used offshore in 2007 was nearly 900 000 tonnes. Only 2,5 weight % of the chemicals used contain either substances on the OSPAR List of Chemicals for Priority Action (LCPA) or substances which are candidates for substitution.

The total quantity of chemicals discharged into the sea in 2007 was roughly 250 000 tonnes, almost 87% of this is chemicals on the OSPAR list of substances/preparations used and discharged offshore which are considered to pose little or no risk to the environment (PLONOR). Discharge to the sea of chemicals on the LCPA was 70 kg in 2007.

## ***Emissions to air are more or less stable***

An increasing trend in *atmospheric emissions* has been identified in the past. During the last seven years the picture seems to have changed slightly:

- SO<sub>2</sub> emissions decreased about 29% between 2005 and 2007;
- emissions of CO<sub>2</sub> have remained more or less stable;
- emissions of NO<sub>x</sub> went down about 9% between 2005 and 2007;

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- methane emissions has slightly increased in 2007 compared to 2005;
- non-methane VOC has decreased significantly in 2007 compared to 2005.

## Récapitulatif

### ***OSPAR recueille tous les ans des données sur les rejets, les déversements accidentels et les émissions provenant des installations en offshore***

Le présent rapport comporte dans la Partie A de la section 3 les données sur les rejets, les déversements accidentels et les émissions provenant des installations en offshore 2007. Les données cumulées sont présentées dans la Partie B de la section 3. La section 2 comporte une évaluation des données notifiées pour 2006 (Publication OSPAR numéro 380/2008) et pour 2007, ainsi que les tendances pour les neuf dernières années.

### ***Les rejets d'hydrocarbures continuent à diminuer***

La *production totale d'hydrocarbures* dans la zone maritime OSPAR a diminué de 11% entre 2001 et 2007.

La quantité totale d'*hydrocarbures dispersés (hydrocarbures aliphatiques) rejetés* dans la mer (provenant de l'eau de production, du déplacement de l'eau et de déversements accidentels) accuse une tendance à la baisse au cours de ces dernières années, mais elle est passée de 8 756 tonnes en 2005 à 9 025 tonnes en 2007. Cette augmentation s'explique principalement par un déversement accidentel important de 3 815 tonnes au large de la Norvège en 2007.

De même que les années précédentes, *l'eau de production et le déplacement de l'eau* sont les contributeurs principaux aux rejets d'hydrocarbures provenant des activités pétrolières et gazières offshore, représentant 98% de la quantité totale d'hydrocarbures rejetés en mer en 2006, mais seulement 57% en 2007 du fait du déversement accidentel important. Le brûlage à la torchère représente une source mineure de rejets d'hydrocarbures.

### ***La concentration des hydrocarbures dispersés dans l'eau de production est inférieure à la norme de performance pour la plupart des installations***

La moyenne annuelle des hydrocarbures dispersés dans l'eau de production est passée de 17,81 mg/l en 2006 à 12,5 mg/l en 2007, se situant bien en dessous de la norme de performance actuelle de 30 mg/l d'hydrocarbures dispersés dans l'eau de production rejetée dans la mer. La diminution relevée en 2007 est due, dans une certaine mesure, à la modification de la méthode d'analyse.

En 2007, on a relevé 22 *installations dépassant la norme de performance de 30 mg/l* pour les hydrocarbures dispersés dans l'eau de production. Certaines installations causent encore des préoccupations importantes malgré les efforts dans le sens de la réduction du nombre d'installations dont les résultats sont médiocres.

### ***La plupart des produits chimiques utilisés et rejetés offshore sont considérés comme ne présentant que peu de risque, voire aucun***

Le rejet des *fluides de forage à phase organique (OPF)* (fluides n'étant pas à base d'hydrocarbures) a cessé en 2005.

OSPAR réglemente depuis 2001 *l'utilisation et le rejet des produits chimiques*. Les données communiquées par tous les principaux contributeurs ont été notifiées pour la première fois en 2003. La quantité totale de produits chimiques utilisés offshore en 2007 représente presque 900 000 tonnes.

Seulement 2,5% du poids des produits chimiques utilisés contient soit des substances figurant sur la Liste OSPAR des substances prioritaires (LCPA) soit des substances candidates à la substitution.

La quantité totale de produits chimiques rejetés dans la mer en 2007 représente environ 250 000 tonnes, dont presque 87% sont des produits chimiques figurant sur Liste OSPAR de substances/préparations utilisées et rejetées en offshore, et considérées comme ne présentant que peu de risque pour l'environnement, voire aucun (PLONOR). Les rejets dans la mer de produits chimiques figurant sur la LCPA s'élèvent à 70 kg en 2007.

***Les émissions atmosphériques sont plus ou moins stables***

On avait relevé, dans le passé, une tendance à la hausse des *émissions atmosphériques*. Le tableau semble avoir légèrement changé au cours des sept dernières années:

- les émissions de SO<sub>2</sub> ont diminué d'environ 29% entre 2005 et 2007;
- les émissions de CO<sub>2</sub> sont restées plus ou moins stables;
- les émissions de NOx ont diminué d'environ 9% entre 2005 et 2007;
- les émissions de méthane ont légèrement augmenté en 2007 par rapport à 2005;
- les VOC non-méthaniques ont diminué de manière significative en 2007 par rapport à 2005.

# 1. Introduction

## 1.1 Programmes and measures

The Offshore Oil and Gas Industry Strategy (Offshore Strategy) sets the objective of preventing and eliminating pollution and taking the necessary measures to protect the Maritime Area against the adverse effects of offshore activities so as to safeguard human health and of conserving marine ecosystems and, when practicable, restoring marine areas which have been adversely affected.

As its timeframe, the Offshore Strategy further declares that the Commission will implement this Strategy progressively and, in so far as they apply, following on and consistent with the commitments made in the other OSPAR Strategies.

The Offshore Strategy provides that OSPAR will address the programmes and measures:

- a. needed to prevent, control and eliminate pollution under Annex III of the OSPAR Convention;
- b. to be adopted under Annex V of the OSPAR Convention following the identification of relevant human activities.

In doing so, the Offshore Strategy requires the Commission to collect information about threats to the marine environment from pollution or from adverse effects from offshore activities; establish priorities for taking action; and establish and periodically review environmental goals to achieve the Offshore Strategy's objectives.

As part of this process, the Commission should develop and keep under review programmes and measures to identify, prioritise, monitor and control the emissions, discharges and losses of substances which could reach the marine environment and which are likely to cause pollution. Regular reporting is therefore required in order to review progress towards the targets of the Offshore Strategy.

Since 1978, discharges and waste handling from offshore oil and gas installations have been addressed and regularly reported under the former Paris Convention and under the OSPAR Convention. Since the beginning of the 1990s air emissions from these installations have been reported as well. The following measures<sup>1</sup> relevant for the annual report are applicable under the OSPAR Convention:

### ***Discharges contaminated with oil***

- PARCOM Recommendation 86/1 of a 40 mg/l Emission Standard for Platforms;<sup>2</sup>
- OSPAR Reference Method of Analysis for the Determination of the Dispersed Oil Content in Produced Water (OSPAR Agreement number: 2005-15);
- OSPAR Recommendation 2001/1 for the Management of Produced Water from Offshore Installations (as amended);

### ***Use and discharge of drilling fluids and cuttings***

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<sup>1</sup> All measures referred to in this chapter can be downloaded from the OSPAR website [www.ospar.org](http://www.ospar.org) (under "Work Areas, Offshore Oil and Gas Industry").

<sup>2</sup> PARCOM Recommendation of a 40 mg/l Emission Standard for Platforms, 1986 was revoked for produced water only by OSPAR Recommendation 2001/1 for the Management of Produced Water from Offshore Installations. However, this measure is still applicable in relation to ballast water, drainage water and displacement water from offshore installations.

- OSPAR Decision 2000/3 on the Use of Organic-phase Drilling Fluids (OPF) and the Discharge of OPF-contaminated Cuttings;
- Guidelines for the Consideration of the Best Environmental Option for the Management of OPF-Contaminated Cuttings Residue (OSPAR Agreement number: 2002-8);

#### ***Chemicals used and discharged offshore***

- OSPAR Decision 2000/2 on a Harmonised Mandatory Control System for the Use and Reduction of the Discharge of Offshore Chemicals (as amended);
- OSPAR Recommendation 2000/4 on a Harmonised Pre-Screening Scheme for Offshore Chemicals (as amended);
- OSPAR Recommendation 2000/5 on a Harmonised Offshore Chemical Notification Format (HOCNF) (as amended);

and a whole suite of Other Agreements concerning guidance on test methods and completing data sets, and lists of chemicals that will contribute to the implementation of these measures.

## 1.2 Annual reporting and biennial assessments

The data have been submitted by Contracting Parties and compiled by the Secretariat and, following examination by the relevant subsidiary bodies, published by the Commission in the form of annual reports; at first as part of the Commission's general annual report, and from 1992 onwards in annual reports on discharges of oil in the Convention area. From 1999 onwards, the annual reports (starting with 1996 and 1997 data) also contained an assessment of discharges, spills and emissions including a description of the trends from the beginning/mid of the 1980s until the date of the report.

With a view to harmonising the way in which data and information on offshore oil and gas activities are being established and reported, the Programmes and Measures Committee of the OSPAR Commission adopted in 1995 a reporting format and procedures, which set out the requirements for data and information to be provided by Contracting Parties. Over time, the reporting requirements and format for data collection have regularly been reviewed and updated in the light of ongoing work under the OSPAR Commission as regards offshore installations. The reporting format was revised by the Offshore Industry Committee in 2002 for preparing on a trial basis the publication of a more detailed annual report starting with the 2001 data. After evaluation of its first application, the current reporting format (OSPAR Agreement number: 2005-14) was confirmed to be used for the submission of data and information for the Annual OSPAR Report on Discharges, Spills and Emissions from Offshore Installations.

This report presents the discharges, spills and emissions data from offshore installations for 2007 in Part A and cumulative data in Part B. The 2006 data (publication no. 380/2008) and the 2007 data are assessed in Section 2 below.

## 2. Assessment of data reported

New data on dispersed oil discharges for the years 2003 up to 2007 have been reported by Norway. This had an impact on the data reported in the past. In addition, some data on other discharges used in this assessment may slightly differ from data previously published by OSPAR. This is due to the fact that the ongoing checking effort made by Contracting Parties has led to the detection of a few errors. Data used in this assessment report are the best available data at the time the report was written.

## 2.1 Introduction

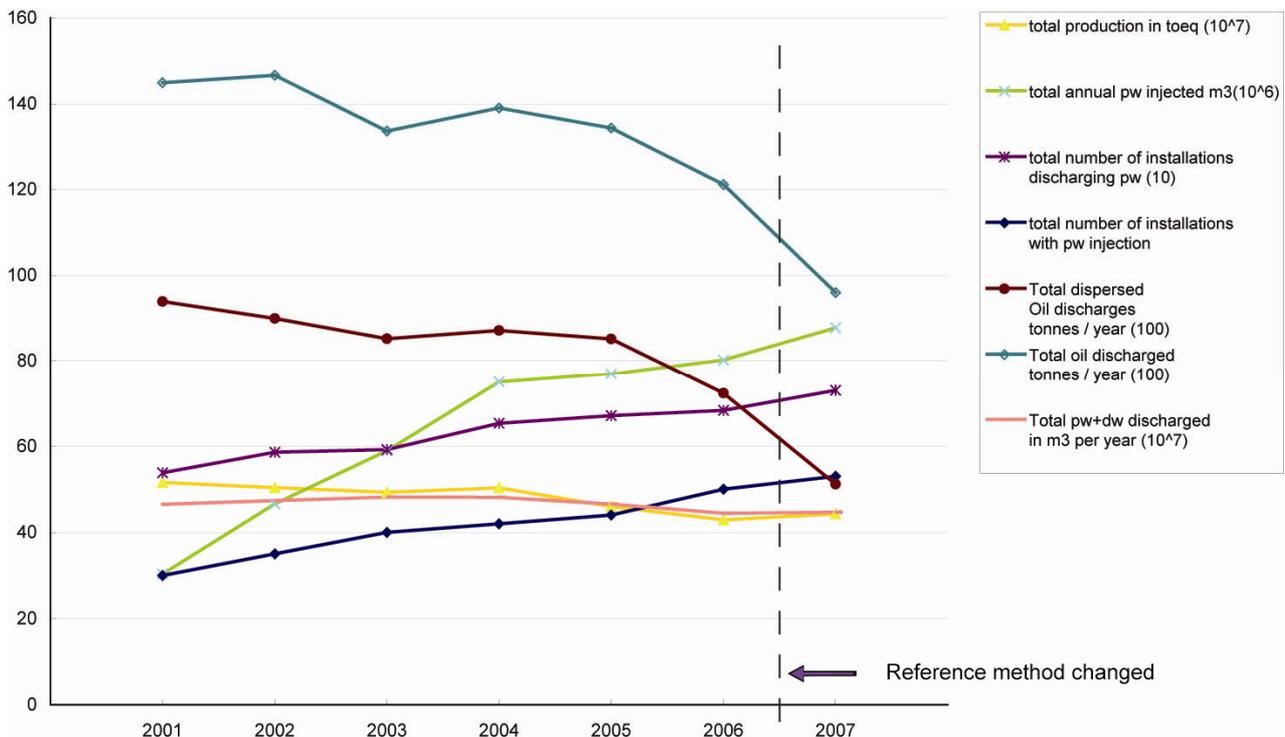
### 2.1.1 Setting the scene

The production of hydrocarbons decreased by 4% in 2007 compared to 2005. Since a peak in 2001, production has decreased about 15%. The total production of hydrocarbons decreased in 2006 by 7% compared to 2005 but increased in 2007 by 2,6% compared to 2006.

**Table 1.** Total production of hydrocarbons (million tonnes of oil equivalents)

2001	2002	2003	2004	2005	2006	2007
516	504	493	503	460	429	440

The total number of installations with emissions and discharges in the OSPAR Maritime Area increased both in 2007 and in 2006 with 730 installations in 2007 compared to 683 in 2006 and to 671 in 2005, an increase since 2005 of 9%. Part of the 2006 – 2007 increase is due to a change of the counting system and the increase of offshore activities in the last 2 years. Since 2001 the discharge of produced water and displacement water did not significantly change. It stabilised at a level of 1,2 to 1,3 million m<sup>3</sup> per day, while the total number of installations injecting produced water increased from 30 in 2001 to 53 in 2007. The total annual produced water injected increased from 30 million m<sup>3</sup> per year in 2001 to 88 million m<sup>3</sup> per year in 2007. By the end of 2006 the new OSPAR performance standard of 30 mg/l and from 1 January 2007 the new OSPAR Reference analysis method entered into force. Trend analysis is only possible before 2006. After that year data for at least three years are needed to do a proper assessment.



**Figure 1:** Trends in oil production in 10<sup>7</sup> tonnes of oil equivalent per year, total number of installations having discharges and emissions, total number of installations where injection of produced water take place, total dispersed and total oil discharges (in 10<sup>2</sup> tonnes per year), total volume of produced and displacement water discharged (in 10<sup>7</sup> m<sup>3</sup> per year) and total volume (in 10<sup>6</sup> m<sup>3</sup> per year) of produced water injected.

### 2.1.2 New performance standard by the end of 2006

According to the OSPAR Recommendation 2001/1 for the Management of Produced Water from Offshore Installations, by the end of the year 2006 no individual offshore installation should exceed a performance standard for dispersed oil of 30 mg/l for produced water discharged into the sea. A report should be sent to the Offshore Industry Committee (OIC) when offshore installations fail to meet the performance standard of 30 mg/l. Up to 2006 the performance standard was 40 mg/l, consequently this assessment report contains the assessment of the compliance to both performance standards.

### 2.1.3 Implementation of the new OSPAR Reference analysis method for the determination of dispersed oil

As from 1 January 2007 the new OSPAR Reference method for the analysis of dispersed oil concentration discharged in produced water entered into force (OSPAR Agreement number 2005-15). This method measures the oil concentration by applying gas chromatography with flame ionisation detection (GC-FID), while the oil concentration measurement according to the former PARCOM Reference analysis method was based on infrared (IR) detection. Contracting Parties having experience with the new OSPAR Reference analysis GC-FID method reported deviations of -26 to +10% in the measured concentration of dispersed oil in produced water discharges compared to the former PARCOM analysis IR method. Therefore it was decided to split the trend analysis into a period before 2006 and a period starting from 2007. Future trend analysis is only possible when in future at least 3 years of data on the basis of the new OSPAR Reference analysis GC-FID method are available. In the following graphs this difference in trend periods is shown by using a yellow coloured double arrow.

### 2.1.4 Data quality assurance and quality control

Oil and gas operators are required to correlate their offshore analysis equipment with the OSPAR Reference method (GC-FID) using onshore certified laboratories. Some installations are visited by certifying laboratories to audit the analysis method and samples taken offshore are taken onshore for further analysis. In some occasions it is required that the correlation between the former OSPAR IR analysis method with the new GC-FID method is verified by an independent body. Samples taken offshore are also analysed onshore to validate the analysis carried out by individual operators. However only one part of the equation, *i.e.* the determination of oil concentrations in produced water is taken care of, while the other part, *i.e.* measurement of the volume of water discharged, is not. The quality of the measurement of that volume of produced water discharged is questionable. The UK uses 10% uncertainty measurement while the Netherlands requires 5%.

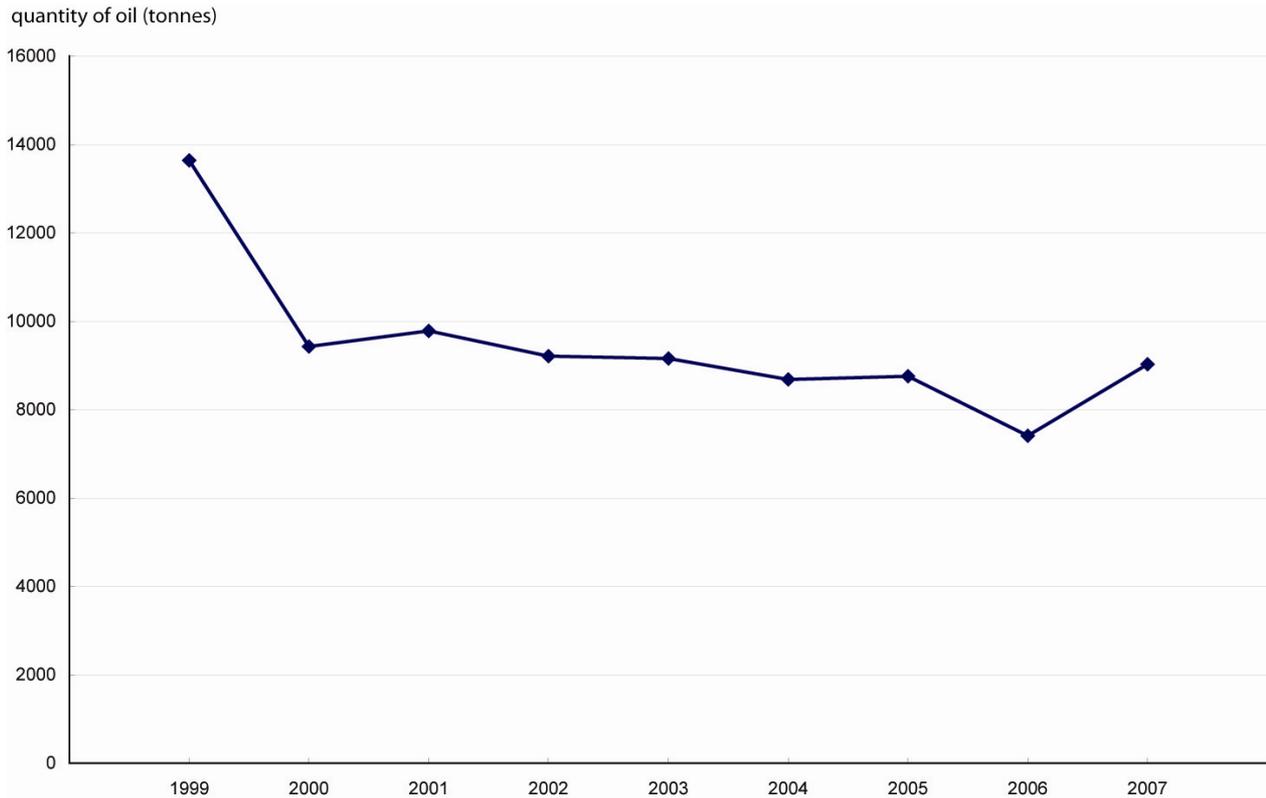
Some data used in this assessment may slightly differ from data previously published by OSPAR. This is due to the fact that the ongoing checking effort made by Contracting Parties led to the detection of a few errors. Data used in this report are the best available data at the time the assessment was made by the EAP. However, new data for dispersed oil discharges for the years 2003 up to 2007 have been reported by Norway, in which it was stated that revised calculations carried out by Norway lead to new data on dispersed oil discharges.

## 2.2 Discharges of oil and organic phase fluids into the sea

The total **quantity of oil discharged**, *excluding* organic-phase drilling fluids (OPF), into the Maritime Area of OSPAR (resulting from discharges of production and displacement waters, and from accidental crude oil spillage) decreased in 2006 to 7407 tonnes compared to 8756 tonnes in 2005 (tables 2a, 5b&8<sup>3</sup>) and increased again to 9025 tonnes in 2007. The main reason for this increase is due to a very large crude oil spill of 3815 tonnes offshore Norway (Figure 2).

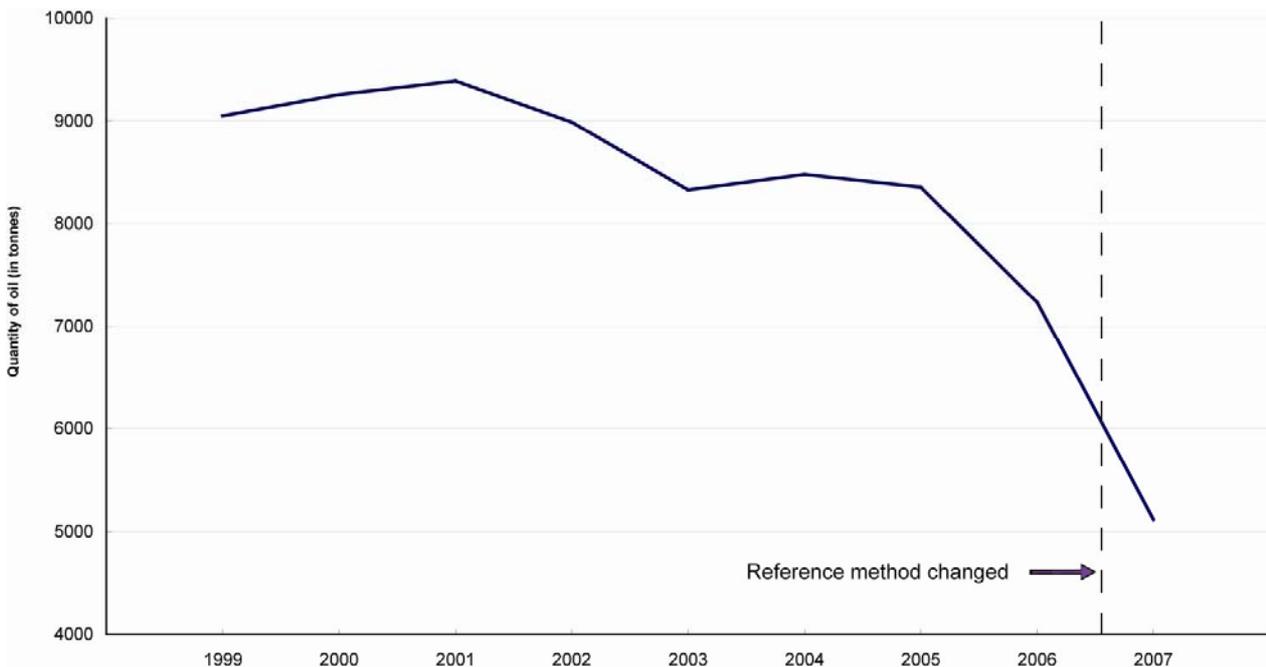
<sup>3</sup> The numbering refers to the tables in the 1984-2007 cumulative report (part B) of this report.

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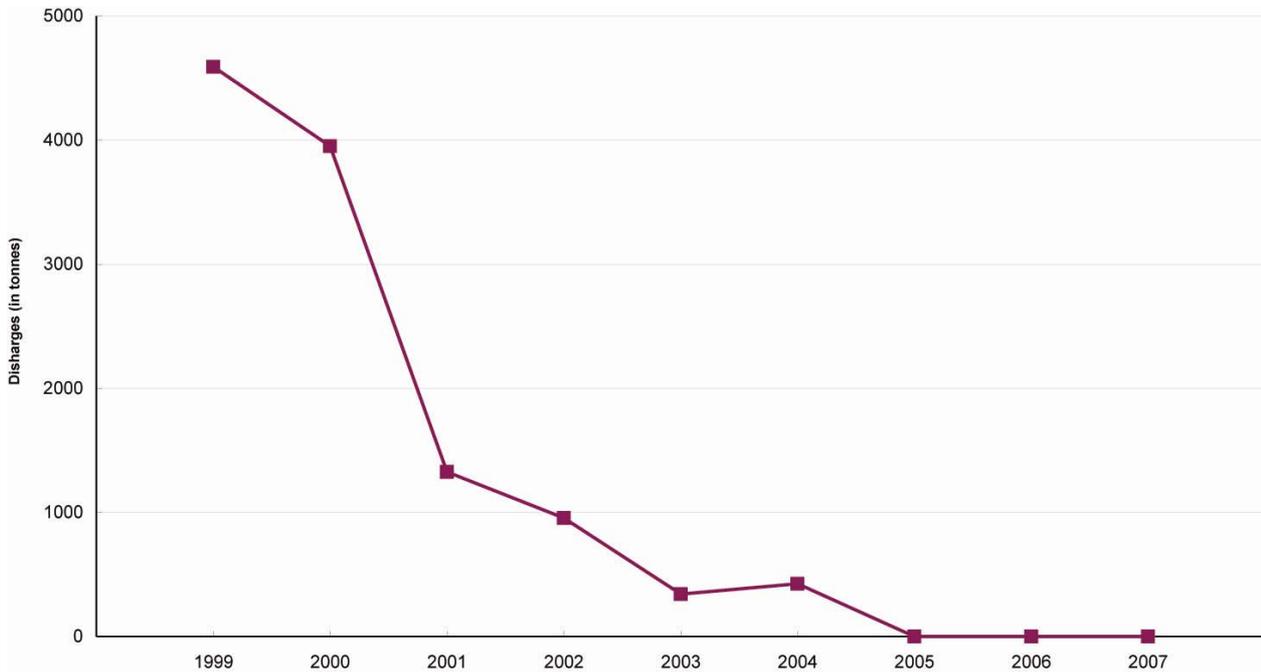
**Figure 2:** Total quantity of oil discharged in tonnes.

Without this spill, the dispersed oil discharged, resulting from the discharges of produced water and displacement water, decreased from 7235 tonnes in 2006 to 5115 in 2007 tonnes or -29% (Figure 4). However, in 2007 several Contracting Parties implemented the new OSPAR Reference analysis method for dispersed oil and some Contracting Parties reported that this changing lead to a decrease in oil concentrations of at least 25%. So, for the time being, it is not possible to compare the year 2007 with the previous years.



**Figure 3:** Total quantity of dispersed oil discharged (tonnes) in produced and displacement water

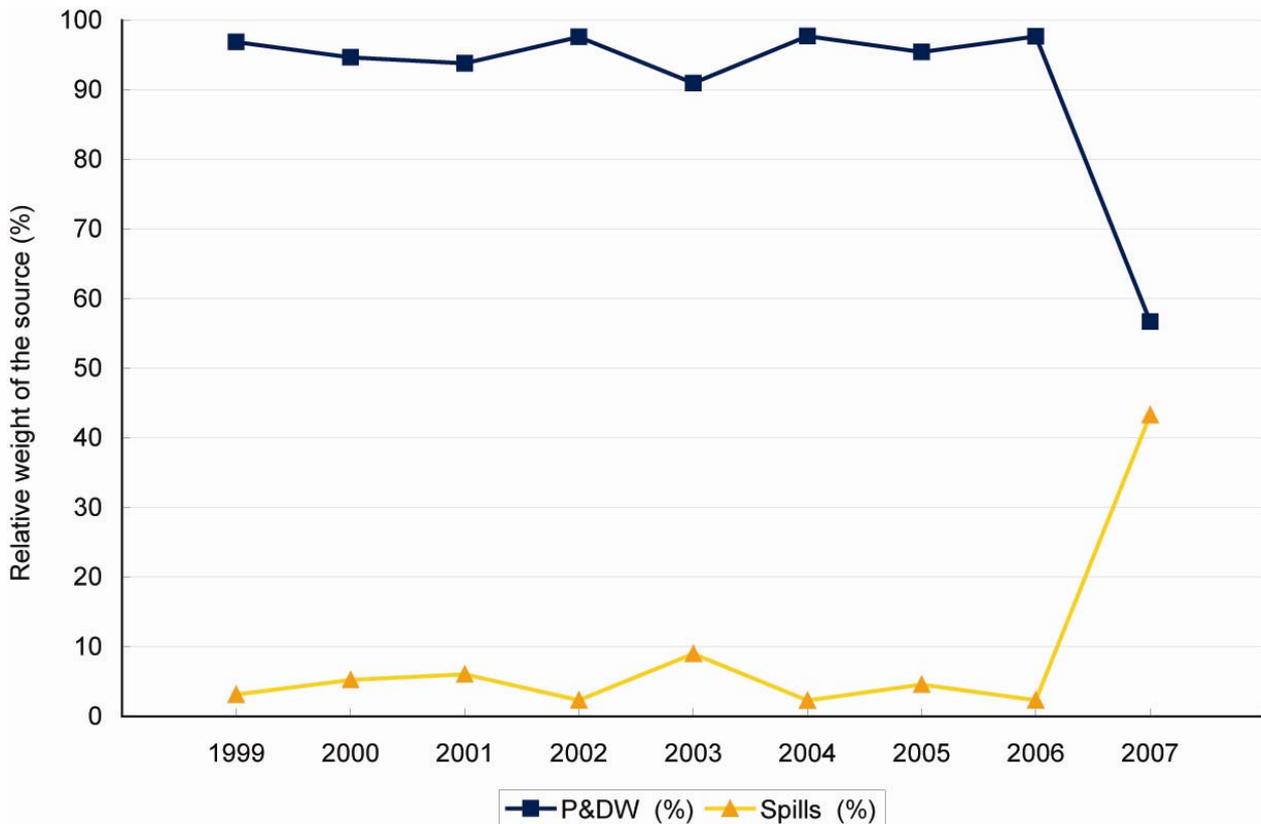
The discharges of OPF ceased in 2005 (Figure 4).



**Figure 4:** Total quantity of organic-phased drilling fluids discharged (tonnes).

In addition to the discharge of OPF through drill cuttings, three **sources of oily discharges** are reported: production and displacement waters (P&DW) and crude oil spills. As in the previous years, P&DW are by far the main contributors. Oil spills due to flaring operations have been reported up to 2003. In 2004 it was decided not to report oil spills due to flaring operations as a separate source anymore, since this source was not of significance compared to the other two sources as shown in Figure 5. Oil in produced and displacement water discharges represented 97,7 % of the total amount of oil discharged to the sea in 2006, but only 56,7% in 2007. The reasons, as mentioned earlier, are due to the very large oil spill offshore Norway, but also the changing to the new OSPAR Reference method for the analysis of dispersed oil concentrations.

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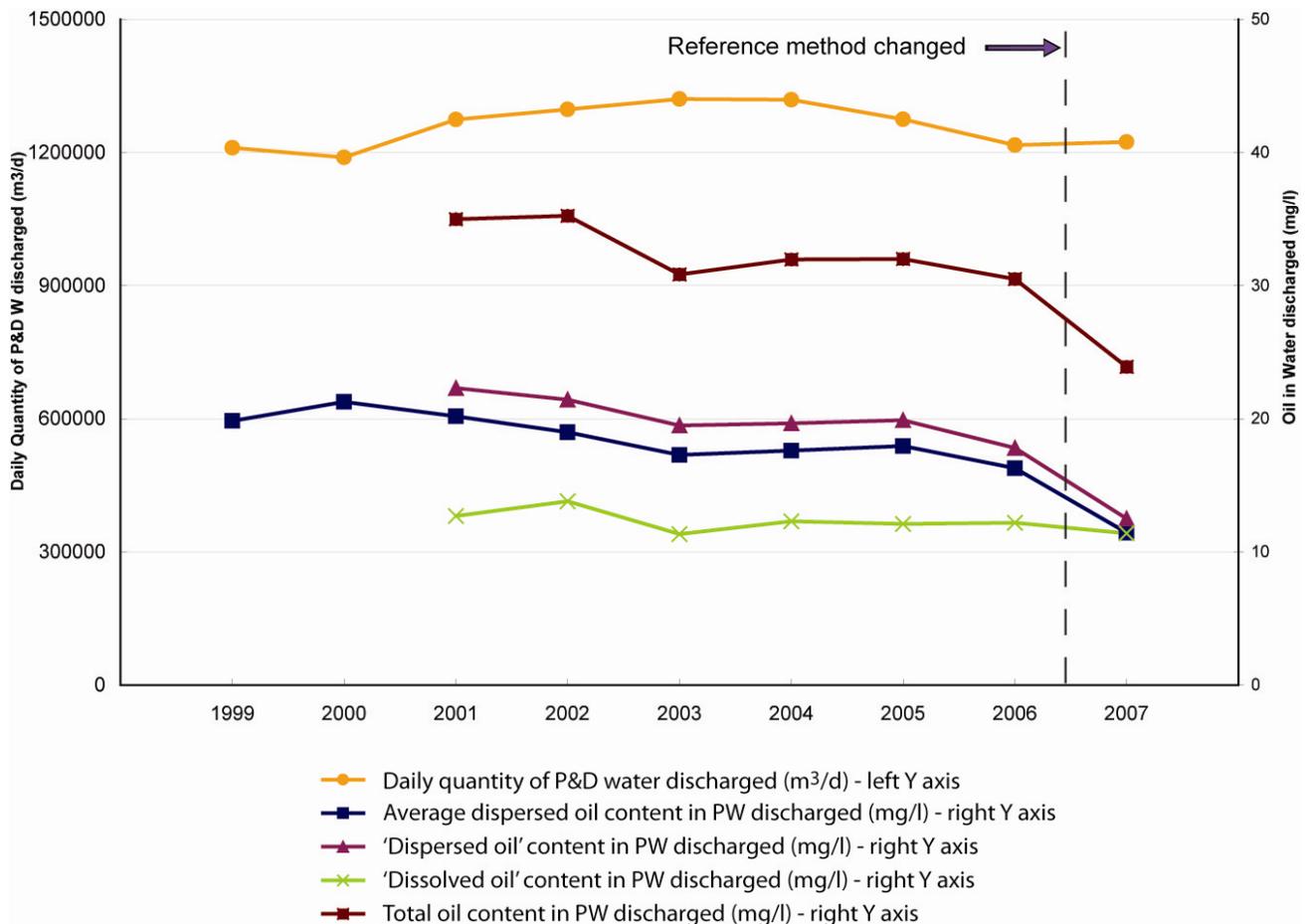
**Figure 5:** Sources of oily discharges, relative contribution.

The **quality of the water discharged** (expressed in terms of content of dispersed/aliphatic hydrocarbons in the water discharged) improved slightly in 2006 compared to 2005: the average oil concentrations were 16,3 and 18,0 mg/l respectively. In 2007 there was a drop again, however this is to some extent due to the changing to the new OSPAR Reference analysis method (Figure 6).

A split between production and displacement waters, and between dispersed or dissolved oil in produced water discharged show that:

- a. the average dispersed oil content in produced water only was 17,81 mg/l in 2006 (19,9 mg/l in 2005). In 2007 this went down to 12,5 mg/l due to the new OSPAR Reference analysis method;
- b. the average dissolved oil discharges roughly represent nearly 47% of the total oil discharged.

*Remark:* the average content of hydrocarbons in displacement waters is 8 to 10 times lower than their content in produced water.



**Figure 6:** Quantity and quality of water discharged. PW means produced water, DW means displacement water.

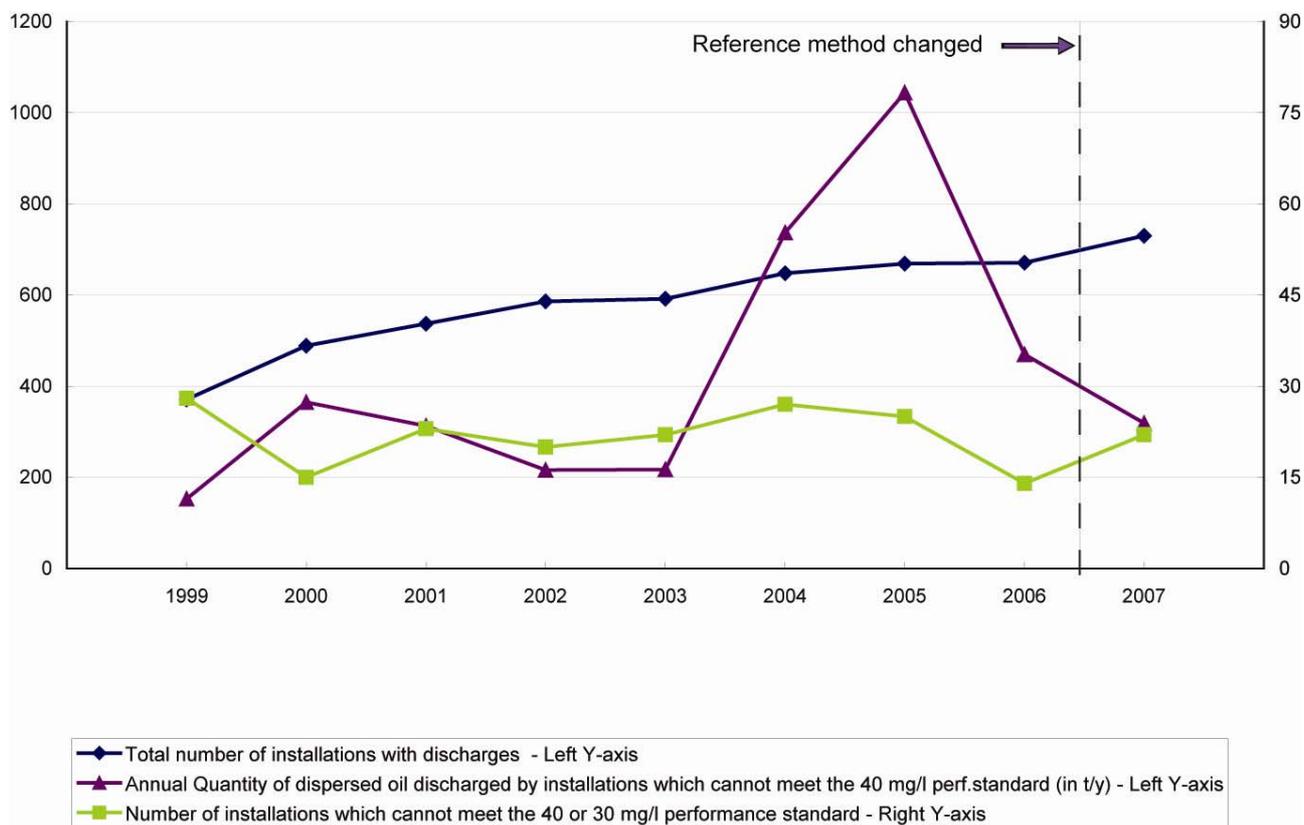
By 2007 the performance standard changed for dispersed oil from 40 to 30 mg/l. So from 2007 the report contains data on installations exceeding the 30 mg/l performance standard.

The number of installations which exceeded the 40 mg/l performance standard for dispersed oil decreased from 25 in 2005 to 14 in 2006 (table 3b, part B). The *total quantity of hydrocarbons* discharged by these installations decreased also significantly from 1044 tonnes in 2005 to 469 tonnes in 2006. About 142 tonnes of this amount of dispersed oil discharged from the 14 exceeding installations in 2006 are due to the exceeding of the 40 mg/l performance standard.

In 2007, 22 installations exceeded the new 30 mg/l performance standard, discharging the total of 319 tonnes of dispersed oil. Only 36 tonnes of dispersed oil discharged are due to the exceeding the 30 mg/l performance standard. This lower amount may be due to changing to the new OSPAR Reference analysis method (GC-FID), showing lower oil concentrations being measured as compared to the previous analysis method (IR). In the next graph (Figure 7) the change to the new OSPAR Reference analysis method is shown by the yellow coloured arrow. Contracting Parties, *i.e.* the Netherlands, Norway and the United Kingdom, having installations exceeding the performance standard of 30 mg/l on an annual basis have reported the reasons for exceeding the performance and plans for improvements.

*Remark:* This overall picture does not reflect the wide spectrum of cases: in 2005, out of the 25 installations concerned, 10 discharged less than 2 tonnes; and only 2 over 100 tonnes. In 2007, out of the 22 installations concerned, 13 discharged less than 2 tonnes; again only 1 over 100 tonnes. However it should be noted that despite the fact that there are installations discharging at annual level

above the performance standard, the overall trend since 2005 is downwards and in any event the totals contain a significant amount of “permitted” oil. This shows that despite the efforts made to reduce the number of installations which have poor records, there are still some installations which raise concern.



**Figure 7:** Installations that do not meet the 40 or 30 mg/l performance standard.

**Spillage:** 173 tonnes of oil were spilled in 2006, and 3907 tonnes in 2007, compared to 399 in 2005. The poor performance of 2007 is explained by the occurrence of one large oil spill offshore Norway, while 2004 data are the best ever recorded (Part B, table 7b).

**Flaring:** flaring is a very minor contributor to the total discharge of oil, and is not covered by OSPAR measures. Specific report on this source of oil discharges by Contracting Parties ceased in 2004.

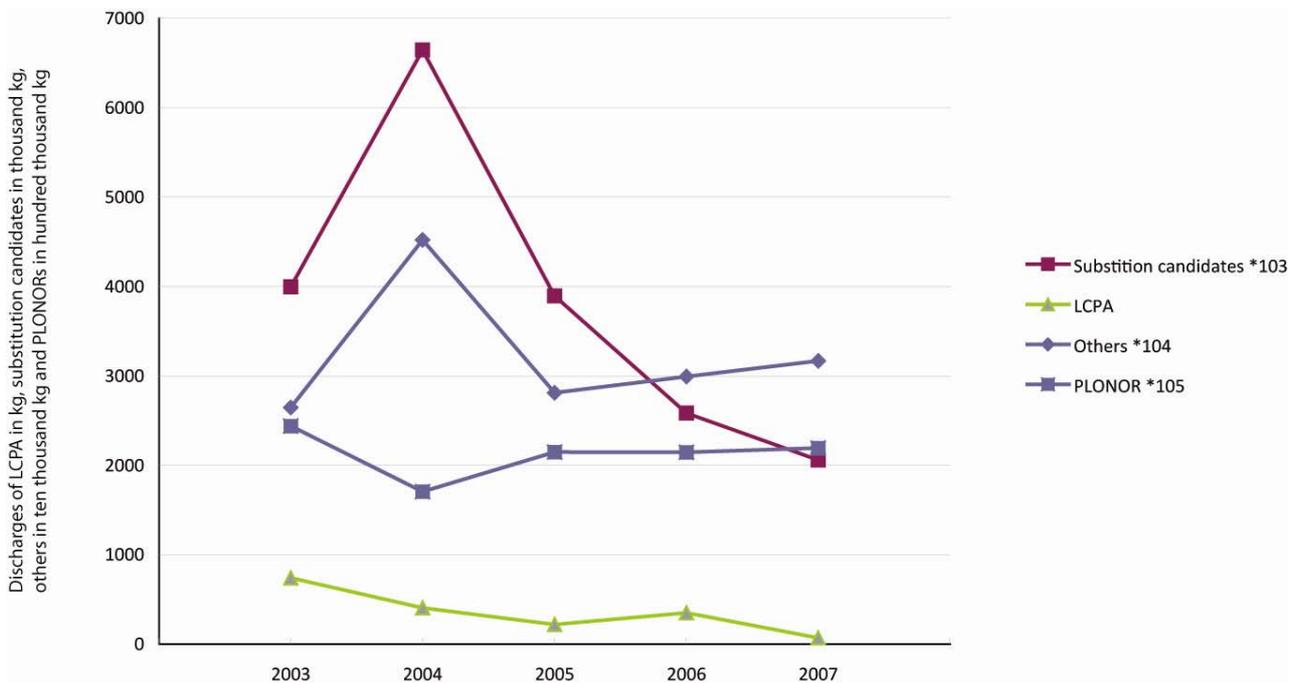
## 2.3 Chemicals

Since 2001 onwards, use and discharge of chemicals offshore have been covered by OSPAR measures. Total quantity of chemicals *used* offshore in 2007 is 897 560 tonnes out of which 72% weight are on the PLONOR<sup>4</sup> list and other 25 weight % contain no substances which are candidates for substitution. Only 2,5 weight % of the chemicals used do contain either substances listed on the List of Chemicals for Priority Action (LCPA) or substances which on the basis of the HMCS pre-screening criteria are candidates for substitution (Part A, table 7c). Total quantity of chemicals discharged into the sea was roughly 253 220 tonnes (Part A, table 7b), almost 86,6 % being listed on the PLONOR list (mainly weighting agents for muds) and other 12,6 weight % are chemicals not containing candidates for substitution. Only 0,8 weight % of the discharged chemicals contain LCPA substances or substances

<sup>4</sup> PLONOR list: OSPAR list of substances/preparations used and discharged offshore which are considered to Pose Little OR NO Risk to the environment (OSPAR Agreement 2004-10).

candidate for substitution. The amount of LCPA substances used decreased from 3,6 tonnes in 2005 to 2,6 tonnes in 2007 whilst the discharge went down from 0,221 tonne in 2005 to 0,070 tonne in 2007. The use of chemicals, containing substances candidates for substitution, decreased significantly from 35 648 tonnes in 2005 to about 23 511 tonnes in 2007, while the discharges also decreased in the same period from 3894 tonnes in 2005 to roughly 2060 tonnes in 2007.

The quality of the data reported before 2003 was poor, therefore a reliable trend for the discharges of chemicals, according to the categories based on the HMCS pre-screening scheme, can only be given for the period 2003 – 2007. In Figure 8 this trend is presented, showing the quantities for PLONORs in 10<sup>5</sup> tonnes per year, the quantities for substitution candidates substances in 10<sup>3</sup> tonnes per year and the quantities for other chemicals (i.e. ranking substances, inorganic substances having toxicity above 1 mg/l) in 10<sup>4</sup> tonnes per year.

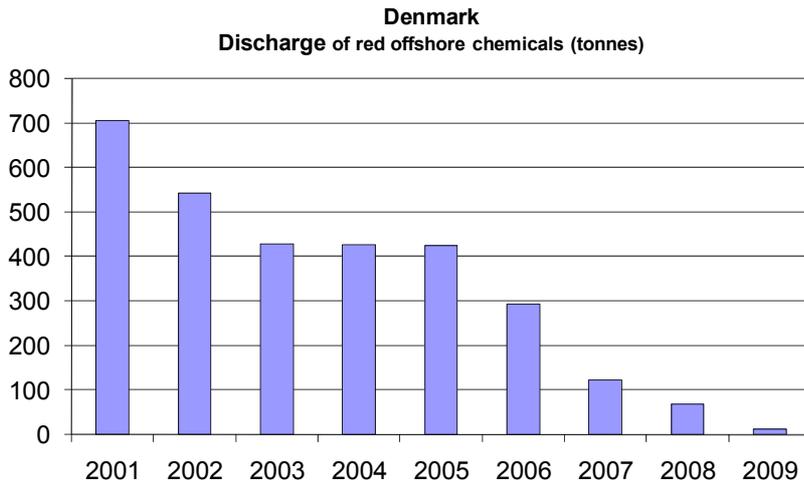


**Figure 8:** Discharges of offshore chemicals.

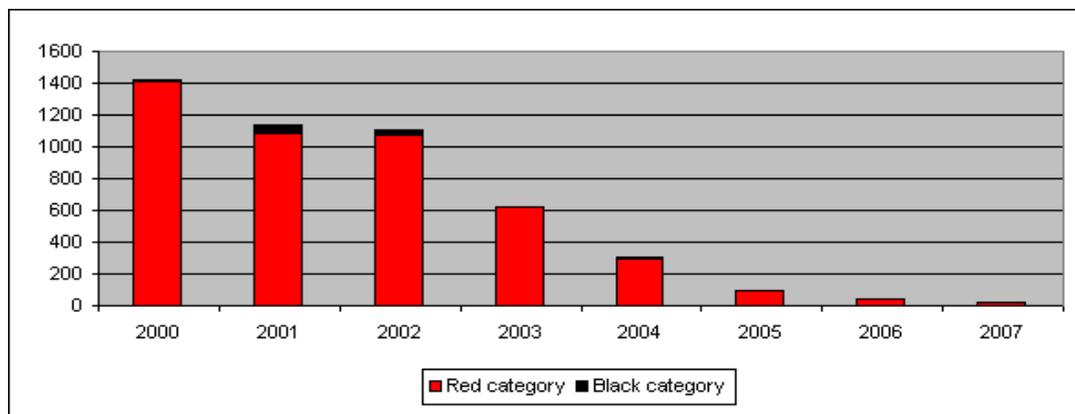
From Figure 8 it can be concluded that the discharges of PLONORs increased by about 2% in the period 2005 – 2007. Discharges of others, i.e. non-toxic inorganic substances and substances ending in the OSPAR HMCS Pre-screening ranking box, increased in the period 2005 – 2007 by about 13%. A 70% decrease for the discharges of LCPA substances was experienced in the period 2005 - 2007 while the discharges of substances candidates for substitution decreased by about 47% in the same period.

In the period 2005 – 2007, drilling operations went up by about 20%, produced oil and gas decreased 4% and the volume of produced water and displacement water discharges also decreased by about 2%. The following graphs show the trend in the discharge of candidates for substitution offshore for Denmark (Figure 9) and for Norway (Figure 10).

Discharges, Spills and Emissions from Offshore Oil and Gas Installations in 2007, including the assessment of data reported in 2006 and 2007



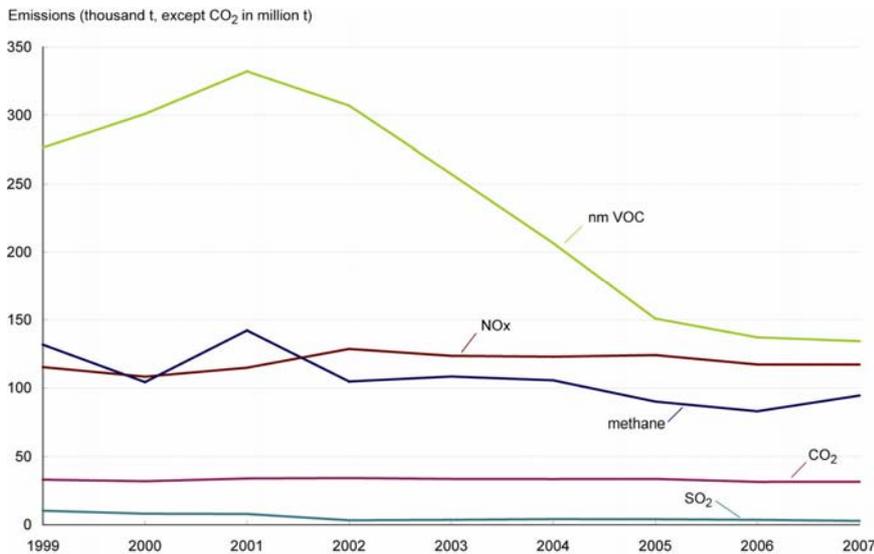
**Figure 9:** Discharges of red offshore chemicals (candidates for substitution) in Denmark.



**Figure 10:** Trend in discharges of substitution candidates in Norway.

**Spillage of chemicals:** the number of chemical spills increased from 201 in 2005 to 307 in 2007 while the amount spilled also increased from 950 to 1319 tonnes respectively. 85% of the chemicals spilled, on which there are reliable data, are PLONOR.

## 2.4 Emissions to air



**Figure 11:** Emissions to air (thousand tonnes).

Emissions to air are not covered by OSPAR measures. Consistencies in and quality of the data reported have undoubtedly improved over the past few years.

An increasing trend of all releases into air had been identified in the past. During the last five years, the picture seems to have slightly changed:

- Non methane VOC (nmVOC) emissions significantly decreased in 2007 compared to 2005. This change is related to the extra measures taken in the UK and Norway, *i.e.* the implementation of Vapour Recovery Systems on off loading facilities.
- Methane emissions slightly increased in 2007 compared to 2005. This change is related to some field which began production offshore the UK in 2007. On the other hand extra measures were taken by the UK and Norway, *i.e.* the implementation of Vapour Recovery Systems on off loading facilities, to reduce these emissions.
- SO<sub>2</sub> emissions decreased for about 29% from 4,1 tonnes in 2005 to 2,9 tonnes in 2007. A significant decrease in the UK was due to stopping the flaring of H<sub>2</sub>S containing gas at an offshore installation in 2007.
- NO<sub>x</sub> emissions went down for about 9% from 124 000 tonnes in 2005 to 113 000 tonnes in 2007.
- CO<sub>2</sub> remains more or less stable at a level of 32 million tonnes per year.

In interpreting these changes, one must take into account factors which have a direct influence on atmospheric emissions, *i.e.* like the ageing of the fields, which globally induces a higher consumption of energy (*e.g.* additional compression) which, in return, leads to increase atmospheric emissions. These factors may partly hide the effect of the measures taken to reduce air emissions.

## 3. Results

Part A: Report relating to 2007 data

Part B: Cumulative Report

### 3.1 General information

The continental decimal system is used throughout this report (with a space as 1000 separator and a comma as decimal separator) with one decimal number after the comma.

NI means No Information available, i.e. unknown or missing data (data different from 0).

NA means Not Applicable, i.e. that the criteria is not relevant. For sums and totals, it is equivalent to 0.

### 3.2 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 OPS.

**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.

Part A: Report relating to 2007 data

## Part A: Report relating to 2007 data

**Table 1: Number of installations with emissions and discharges covered by OSPAR measures <sup>A</sup>**

**Year: 2007**

Country	Production <sup>B</sup>		Subsea <sup>E</sup>	Drilling <sup>F</sup>	Other <sup>G</sup>	Total
	Oil <sup>C</sup>	Gas <sup>D</sup>				
Denmark	12	0	1	6,4	0	<b>19</b>
Germany	1	2	0	0,25	0	<b>3</b>
Ireland	0	2	3	1,07	1	<b>7</b>
Netherlands	9	105	8	8	0	<b>130</b>
Norway <sup>(1)</sup>	51	10	40	16,4	8	<b>125</b>
Spain <sup>(2). (3). (4)</sup>	0	0	0	0	1	<b>1</b>
United Kingdom	81	155	154	53	1	<b>444</b>
<b>Total</b>	<b>154</b>	<b>274</b>	<b>206</b>	<b>85</b>	<b>11</b>	<b>730</b>

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. One installation per cluster of well heads.

F. Exploration & development drilling rigs with no simultaneous production only. The number is expressed in years-equivalent of activity.

G. Example: offshore underground storage and loading buoys

(1) For Norway, in the column "other", the figure 8 includes one storage ship, one riser platform and six loading buoys.

(2) For Spain no drilling activities in 2007 in the OSPAR area

(3) For Spain, for column "subsea", no discharges from the four subsea installations in the OSPAR area

(4) for Spain for column "other", underground storage, Gaviota field

## Part A: Report relating to 2007 data

### Table 2: Produced water 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 Recommendation 2001/1 for the Management of Produced Water from Offshore Installations). Drainage water is considered so far of such little consequence that there is no reporting requirement for OSPAR.

Year: 2007

#### Table 2a: Produced water <sup>A</sup>

Country	Total number of installations <sup>B</sup>	Annual quantity of water discharged <sup>C</sup> m <sup>3</sup>	Annual average oil content (mg/l)			Total amount of oil discharged (tonnes)			Number of installations injecting water <sup>F</sup>	Annual quantity of water injected <sup>F</sup> m <sup>3</sup>
			dissolved <sup>D</sup>	dispersed <sup>D</sup>	total <sup>E</sup>	dissolved <sup>D</sup>	dispersed <sup>D</sup>	total <sup>E</sup>		
Denmark	10	25 351 604	13,9	15,1	29	353,39	383,39	736,78	6	12 655 105
Germany	1	8 573	67,1	14,2	81,3	0,591	0,122	0,713	1	1 179 967
Ireland	2	2 177	34,48	17,01	51,5	0,050	0,030	0,08	0	0
Netherlands	69	12 433 228	6	11	17	69	146	215	5	6 685 848
Norway	46	161 825 645	11,6	9,5	21,1	1 879	1 532	3 411	17	26 665 258
Spain <sup>(1)</sup>	0	0	0	0	0	0	0	0	1	992
United Kingdom	101	201 895 665	11	15	26	2 273	2 959	5232	23	40 534 015
<b>Total</b>	<b>229</b>	<b>401 516 892</b>	<b>11,4</b>	<b>12,5</b>	<b>23,9</b>	<b>4 575</b>	<b>5 021</b>	<b>9 596</b>	<b>53</b>	<b>87 721 185</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 for the Management of Produced Water from Offshore Installations; definition of produced water).

B. Total number of installations discharging produced water.

C. Total quantity of produced water discharged to the sea during the year.

D. Dissolved and dispersed oils are, by definition, the oily compounds measured according to the PARCOM procedure as described in OSPAR Reference document 1997-16.

(IR, 3 or 1 wavelengths). Calculations are based on 1 or 3 wavelengths, depending whether it is aliphatics or aromatics which are to be reported.

E. Total = dissolved + dispersed

F. Produced water only (excluding sea water for pressure maintenance).

(1) Spain - the cause is water formation in Gaviota. Recalibration of low measuring devices. The operators have reported a mistake in the water injected in the year 2006. It should be 770 m<sup>3</sup>

## Part A: Report relating to 2007 data

**Table 2b: Displacement water <sup>A</sup>**

**Year: 2007**

Country	Total number of installations <sup>B</sup>	Annual quantity of water discharged <sup>C</sup> m <sup>3</sup>	Annual average oil content (mg/l)			Total amount of oil discharged (tonnes)			Number of installations injecting water <sup>F</sup>	Annual quantity of water injected <sup>F</sup>
			dissolved <sup>D</sup>	dispersed <sup>D</sup>	total <sup>E1</sup>	dissolved <sup>D</sup>	dispersed <sup>D</sup>	total <sup>E2</sup>		
Denmark	2	2 097 762	0,005	1,11	1,12	0,01	2,33	2,34	0	0
Germany	0	0	0	0	0	0	0	0	0	0
Ireland	0	0	0	0	0	0	0	0	0	0
Netherlands	0	0	0	0	0	0	0	0	0	0
Norway	6	42 080 398	0	2,2	2,20	0	94	94	0	0
Spain	0	0	0	0	0	0	0	0	0	0
United Kingdom	2	965 586	0	0,6	0	0	0,6	0	0	0
<b>Total</b>	<b>10</b>	<b>45 143 746</b>	<b>0,0</b>	<b>2,1</b>	<b>2,1</b>	<b>0</b>	<b>97</b>	<b>96</b>	<b>0</b>	<b>0</b>

A. "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).

B. Total number of installations discharging displacement water.

C. Total quantity of displacement water discharged to the sea during the year.

D. Dissolved and dispersed oils are, by definition, the oily compounds measured according to the PARCOM procedure as described in OSPAR Reference document 1997-16. (IR, 3 or 1 wavelengths). Calculations are based on 1 or 3 wavelengths, depending whether it is aliphatics or aromatics which are to be reported.

E. Total = dissolved + dispersed

F. Displacement water only (excluding sea water for pressure maintenance).

1. When no information is available on the annual average content of dissolved oils, total cannot be determined.

2. When no information is available on the total amount of dispersed oils discharged, total cannot be determined.

## Part A: Report relating to 2007 data

**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*

**Year: 2007**

Country/ Installation <sup>A</sup>	Type of installation <sup>B</sup>	Type of water treatment equipment <sup>C</sup>	Quantity of water discharged during the year (10 <sup>3</sup> m <sup>3</sup> )	Annual average oil content <sup>D</sup> (mg/l)			Total amount of oil discharged (tonnes per year) <sup>E</sup>		
				dissolved	dispersed	total	dissolved	dispersed	total
GdF/G17d-A/AP2007 - NL	Gas	Closed drain /Adsorption filter/Open drain	25	81,32	34,93	116,25	2,02	0,87	2,89
GdF/K2b-A2007 - NL	Gas	Closed drain / Adsorption filter /Open drain	7	126,82	43,90	170,72	0,93	0,32	1,26
Total/L4A 2007 - NL	Gas	HP Filtercoalescer	9	63,38	45,55	108,93	0,57	0,41	0,97
Total/L7N 2007 - NL	Gas	HP Filtercoalescer	0	285,71	71,43	357,14	0,01	0,00	0,01
Heidrun - Norway (90% of the produced water is injected)	Oil	Hydrocyclones, degassing tank, Epcon CFU	0	2,50	38,10	40,60	1,00	14,00	15,00
Kristin - Norway	Gas	Degasser tank, Cetco-fliter	0	54,10	36,00	90,10	11,00	8,00	19,00
Ravenspurn North - UK	Gas	3 phase separator or slugcatchers depending on stream. Hydrocyclones	17	289,00	316,00	605,00	5,05	5,52	10,57
Sean PP - UK	Gas	Separators; condensate polisher; produced water degasser; absorber package	3	40,00	159,00	199,00	0,10	0,41	0,51
Clipper PT - UK	Gas	Separator; oily water flash drum; produced water separator; centrifuges	39	36,49	133,79	170,28	1,42	5,19	6,60
Shearwater PUQ - UK	Oil	Separators; HP and LP hydrocyclones; degasser; plus Aquapurge unit	137	7,19	111,00	118,19	0,98	15,19	16,17
Trent - UK	Gas	coalescer & skimmer tank	3	85,00	87,00	172,00	0,22	0,22	0,44
Bruce - UK	Oil	HP and LP separators, hydrocyclones and degassing drum	20	25,41	85,00	110,41	0,51	1,70	2,21
Tyne - UK	Gas	coalescer & skimmer tank	1	ni	80,00	80,00	ni	0,07	0,07
Cleeton CPQ - UK	Gas	Three phase separators, coalescers, particulate filtration	15	207,00	72,00	279,00	3,02	1,05	4,07
Hewett 48/29a - UK	Gas	Production 3 phase separator, Gas contactors & sump tank for final separation	0,482	4,70	56,00	60,70	0,00	0,03	0,03
Inde AC - UK	Gas	filter coalescer	18	2,10	54,00	56,10	0,04	0,99	1,03
West Sole B - UK	Gas	3 phase separator	7	54,00	46,00	100,00	0,37	0,32	0,69

## Part A: Report relating to 2007 data

Country/ Installation <sup>A</sup>	Type of installation <sup>B</sup>	Type of water treatment equipment <sup>C</sup>	Quantity of water discharged during the year (10 <sup>3</sup> m <sup>3</sup> )	Annual average oil content <sup>D</sup> (mg/l)			Total amount of oil discharged (tonnes per year) <sup>E</sup>		
				dissolved	dispersed	total	dissolved	dispersed	total
Montrose - UK	Oil	2 x 15000 bwpd hydrocyclones and a CETCO unit	672	15,53	35,00	50,53	10,400	23,610	34,010
Auk Alpha - UK	Oil	Hydrocyclone & WEMCO	1 029	9,20	34,00	43,20	9,460	35,100	44,560
West Sole A - UK	Gas	vertical 3-phase separator	3	20,80	31,00	51,80	0,061	0,091	0,152
Dunlin A - UK	Oil	1st and 2nd stage hydrocyclones; PW flash drum	5 954	11,58	30,90	42,48	68,900	183,965	252,865
Heather A - UK	Oil	Oil Flotation tanks	721	16,40	30,10	46,50	11,820	21,740	33,560
<b>Total</b>			<b>8 680</b>	<b>15</b>	<b>37</b>	<b>51</b>	<b>128</b>	<b>319</b>	<b>447</b>

A. Name of the installation where the discharge took place.

B. Same categories as in table 1: Oil (O), Gas (G), Sub-sea (S), Other (oth) installations.

C. Piece of equipment at the outlet of which the oil content - exceeding 40 mg/l - is measured.

D. The annual average oil content is 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.

E. The figures for Contracting Parties' total amount of oil discharged have been rounded up. The overall total value is the exact figure and may differ slightly from the sum of the Contracting Parties' total amount of oil discharged.

## Part A: Report relating to 2007 data

**Table 4: Use and discharges of organic-phase drilling fluids (OPF) <sup>A</sup>**

**Year: 2007**

**Table 4a: Use and discharges of oil-based fluids (OBF) <sup>B</sup>**

Country	Total amount of OBF used (tonnes)	Cuttings discharged to the sea			OPF cuttings injected		Cuttings transported to shore <sup>E</sup> (tonnes)
		Number of wells concerned	Average oil concentration on cuttings (g/kg)	Total amount of oil discharged <sup>C</sup> (tonnes)	Number of wells concerned	Total amount of cuttings injected <sup>D</sup> (tonnes)	
Denmark	3 706	0	0	0	2	1 467	1 354
Germany	3 832	0	0	0	0	0	4 800
Ireland	2 295	0	0	0	0	0	3 062
Netherlands	16 997	0	0	0	0	0	11 263
Norway	182 902	0	0	0	77	50 321	28 942
Spain	0	0	0	0	0	0	0
United Kingdom	108 060	0	0	0	5	401	145 201
<b>Total OBF</b>	<b>317 792</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>84</b>	<b>52 189</b>	<b>194 622</b>

A. 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.

B. 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.

C. Estimated amount of oil discharged to the sea, through the cuttings discharged.

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

E. Amount of cuttings transported to shore, for treatment and/or disposal.

## Part A: Report relating to 2007 data

**Table 4b: Use and discharges of non-OBF organic-phase drilling fluids (non-OBF OPF) <sup>A</sup>**

**Year: 2007**

Country	Total amount of non-OBF OPF used (tonnes)	Cuttings discharged to the sea			OPF cuttings injected		Cuttings transported to shore <sup>D</sup> (tonnes)
		Number of wells concerned	Average organic phase concentration on cuttings (g/kg)	Total amount organic phase fluids discharged <sup>B</sup> (tonnes)	Number of wells concerned	Total amount of cuttings injected <sup>C</sup> (tonnes)	
Denmark	0	0	0	0	0	0	0
Germany	0	0	0	0	0	0	0
Ireland	0	0	0	0	0	0	0
Netherlands	0	0	0	0	0	0	0
Norway	0	0	0	0	0	0	0
Spain	0	0	0	0	0	0	0
United Kingdom	0	0	0	0	0	0	0
<b>Total non-OBF OPF</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Grand total OPF <sup>E</sup></b>	<b>317 792</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>84</b>	<b>52 189</b>	<b>194 622</b>

A. Definitions in the OSPAR Decision 2000/3 on the Use of Organic-phase Drilling Fluids (OPF) and the Discharge of OPF-contaminated Cuttings:

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;

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;

B. Estimated amount of organic phase discharged to the sea, through the cuttings discharged.

C. Estimated amount of cuttings injected into disposal wells, excluding the water added for slurryfication.

D. Amount of cuttings transported to shore, for treatment and/or disposal.

E. Total OBF + non-OBF OPF.

## Part A: Report relating to 2007 data

### Table 5: Accidental spillages

Year: 2007

#### Table 5a: Accidental spillages of oil

Country	Number of oil spills		
	≤ 1 tonne	> 1 tonne	Total number
Denmark	30	1	31
Germany	0	0	0
Ireland	3	0	3
Netherlands	35	0	35
Norway (1)	155	12	167
Spain	0	0	0
United Kingdom	270	9	279
<b>Total</b>	<b>493</b>	<b>22</b>	<b>515</b>

Quantity of oil spilled (tonnes)		
≤ 1 tonne	> 1 tonne	Total number
2	30	32
0	0	0
0,2	0	0,2
1,2	0	1,2
10	3 805	3 815
0	0	0
12	47	59
<b>25</b>	<b>3882</b>	<b>3907</b>

(1) For Norway, the numbers in the column "quantity" are reported in cu.m and are calculated with a density of 0.85 ton.cu.m, flaring spillage is included with 2 ton.

#### Table 5b: Accidental spillages of chemicals <sup>A</sup>

Country	Number of chemical spillages		
	≤ 1 tonne	> 1 tonne	Total number
Denmark	1	0	1
Germany	0	0	0
Ireland	0	0	0
Netherlands	3	1	4
Norway	75	44	119
Spain	0	0	0
United Kingdom	134	49	183
<b>Total</b>	<b>213</b>	<b>49</b>	<b>307</b>

Quantity of chemicals spilled (tonnes)		
≤ 1 tonne	> 1 tonne	Total number
0	0	0
0	0	0
0	0	0
0,6	1,1	1,7
13	464	477
0	0	0
25	818	843
<b>39</b>	<b>1283</b>	<b>1322</b>

(1) For Norway, the numbers in the column "quantity" are reported in cu.m. and are calculated with a density of 1 ton.cu.m for chemicals and 1.1 ton per cu.m for the drilling mud

A. Chemicals: all oil free spillages + non-OBF OPF drilling fluids spillages + oily WBM spillages (lubricant).

## Part A: Report relating to 2007 data

**Table 6: Emissions to air**

**Year: 2007**

Country	CO <sub>2</sub> <sup>A</sup> (10 <sup>3</sup> tonnes)	NO <sub>x</sub> <sup>B</sup> (10 <sup>3</sup> tonnes)	nmVOCs <sup>C</sup> (10 <sup>3</sup> tonnes)	CH <sub>4</sub> <sup>D</sup> (10 <sup>3</sup> tonnes)	SO <sub>2</sub> (10 <sup>3</sup> tonnes)
Denmark	2 114,0	7	3,1	5	0,22
Germany	58,2	0,03	0,22	1,06	0,00
Ireland	64,2	0,24	0,01	0,79	0,01
Netherlands	1 390,0	4,00	4,0	14,0	0,20
Norway	11 072,0	54	73	25,2	0,7
Spain	36,3	0,08	0,10	0,40	0,00
United Kingdom	16 964,0	52,0	54,0	48,0	1,74
<b>Total</b>	<b>31698,7</b>	<b>117</b>	<b>134</b>	<b>94</b>	<b>2,9</b>

A. CO<sub>2</sub> is carbon dioxide emitted, not the carbon dioxide equivalents of the various greenhouse gases. Carbon monoxide (CO) is not included.

B. NO<sub>x</sub> is the sum of nitric oxide (NO) and nitrogen dioxide (NO<sub>2</sub>) expressed as NO<sub>2</sub> equivalent. Nitrous oxide (N<sub>2</sub>O) is not included as a component of NO<sub>x</sub>.

C. VOCs (Volatile Organic Compounds) comprise all hydrocarbons, other than methane, released to the atmosphere.

D. CH<sub>4</sub> corresponds to the methane released to the atmosphere, from any source.

## Part A: Report relating to 2007 data

**Table 7: The use and discharge of offshore chemicals**

**Year: 2007**

**Table 7a: Quantity of offshore chemicals used in kg/year**

Country	Plonor <sup>B</sup>	"LCPA" <sup>C</sup>	Prescreening Category <sup>A</sup>				Ranking <sup>H</sup>	Total
			LC <sub>50</sub> or EC <sub>50</sub> < 1 mg/l <sup>D</sup>	Biodegradation < 20 % <sup>E</sup>	Substances meet two of three criteria <sup>F</sup>	Inorganic, LC50 or EC50 > 1 mg/l <sup>G</sup>		
Denmark	66 356 341	0	9 950	302 503	575 771	7 996 987	12 049 738	<b>87 291 290</b>
Germany	710 225	0	0	1400	879 156	0	124 599	<b>1 715 380</b>
Ireland	3 876 616	0	0	12 319	604 258	2 252	151 051	<b>4 646 496</b>
Netherlands (1)	27 052 063	0	0	3 173 171	2 533 475	367 282	5 443 977	<b>42 247 999</b>
Norway	253 122 000	497	20	3 024 000	2 363 000	1 860 000	93 313 000	<b>353 682 517</b>
Spain	0	0	0	0	0	0	0	<b>0</b>
United Kingdom	294 780 970	2 128	910	3 974 251	6 056 927	2 326 787	100 834 384	<b>407 976 357</b>
<b>Total</b>	<b>645 898 215</b>	<b>2 625</b>	<b>10 880</b>	<b>10 487 644</b>	<b>13 012 587</b>	<b>12 553 308</b>	<b>211 916 749</b>	<b>897 560 039</b>

A. According to OSPAR Recommendation 2000/4 on a Harmonised Pre-screening Scheme for Offshore Chemicals 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)  
(Reference Number: 2004-10).

C. Substance listed in the OSPAR List of Chemicals for Priority Action (LCPA) (including its updates). Previously called Annex 2 substances because it referred to Annex 2 of the 1998 OSPAR Strategy with regard to Hazardous Substances. This Annex 2 has now been replaced by the LCPA. (Reference Number: 2004-12)

D. Inorganic substance with LC<sub>50</sub> or EC<sub>50</sub> less than 1 mg/l.

E. Biodegradation of the substance is less than 20% during 28 days.

F. Substance meets two of the following three criteria:

I. (biodegradation in 28 days less than 70% (OECD 301A, 301E) or less than 60% (OECD 301B, 301C, 301F, 306);

II. bioaccumulation log Pow > 3 or BCF > 100 and considering molecular weight;

III. toxicity LC50 < 10mg/l or EC50 < 10mg/l.

G. Inorganic substance with LC50 or EC50 over 1 mg/l.

H. Substance does not fulfill the above mentioned criteria (1-7) and is therefore ranked according to OSPAR Recommendation 2000/4.

(1) The Netherlands have included 3 678 031 kg of unknown chemicals in their total

## Part A: Report relating to 2007 data

**Table 7b: Quantity of offshore chemicals discharged in kg/year**

**Year: 2007**

Country	Plonor <sup>B</sup>	"LCPA" <sup>C</sup>	Prescreening Category <sup>A</sup>				Ranking <sup>H</sup>	Total
			LC <sub>50</sub> or EC <sub>50</sub> < 1 mg/l <sup>D</sup>	Biodegradation < 20 % <sup>E</sup>	Substances meet two of three criteria <sup>F</sup>	Inorganic, LC50 or EC50 > 1 mg/l <sup>G</sup>		
Denmark	30 919 208	0	250	44 682	76 655	169 353	4 629 994	<b>35 840 142</b>
Germany	342 003	0	0	1 400	50	0	3 659	<b>347 112</b>
Ireland	1 660 002	0	0	651	880	870	61 016	<b>1 723 419</b>
Netherlands (1)	8 191 288	0	0	6 179	10 182	179 066	263 184	<b>8 658 272</b>
Norway	73 624 000	1	1	13 900	9 900	143 000	11 880 000	<b>85 670 802</b>
Spain	0	0	0	0	0	0	0	<b>0</b>
United Kingdom	104 733 835	69	864	660 055	1 234 498	483 930	13 866 642	<b>120 979 893</b>
<b>Total</b>	<b>219 470 336</b>	<b>70</b>	<b>1 115</b>	<b>726 867</b>	<b>1 332 165</b>	<b>976 219</b>	<b>30 704 495</b>	<b>253 219 640</b>

A. According to OSPAR Recommendation 2000/4 on a Harmonised Pre-screening Scheme for Offshore Chemicals 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)  
Reference Number: 2004-10).

C. Substance listed in the OSPAR List of Chemicals for Priority Action (LCPA) (including its updates). Previously called Annex 2 substances because it referred to Annex 2 of the 1998 OSPAR Strategy with regard to Hazardous Substances. This Annex 2 has now been replaced by the LCPA. (Reference Number: 2004-12)

D. Inorganic substance with LC<sub>50</sub> or EC<sub>50</sub> less than 1 mg/l.

E. Biodegradation of the substance is less than 20% during 28 days.

F. Substance meets two of the following three criteria:

- I. (biodegradation in 28 days less than 70% (OECD 301A, 301E) or less than 60% (OECD 301B, 301C, 301F, 306);
- II. bioaccumulation log Pow > 3 or BCF > 100 and considering molecular weight;
- III. toxicity LC<sub>50</sub> < 10mg/l or EC<sub>50</sub> < 10mg/l.

G. Inorganic substance with LC50 or EC50 over 1 mg/l.

H. Substance does not fulfill the above mentioned criteria (1-7) and is therefore ranked according to OSPAR Recommendation 2000/4.

(1) The Netherlands have included 8 373 kg of unknown chemicals in their total

## Part A: Report relating to 2007 data

**Table 7c: Quantity of offshore chemicals spilled in kg/year**

**Year: 2007**

Country	Prescreening Category <sup>A</sup>						Ranking <sup>H</sup>	Total
	Plonor <sup>B</sup>	"LCPA" <sup>C</sup>	LC <sub>50</sub> or EC <sub>50</sub> < 1 mg/l <sup>D</sup>	Biodegradation < 20 % <sup>E</sup>	Substances meet two of three criteria <sup>F</sup>	Inorganic, LC50 or EC50 > 1 mg/l <sup>G</sup>		
Denmark	0	0	0	0	0	0	0	0
Germany	0	0	0	0	0	0	0	0
Ireland	0	0	0	0	0	0	168	168
Netherlands	1 847	0	0	0	0	1	219	2 067
Norway	304 000	0	0	4 520	270	0	26 800	335 590
Spain	0	0	0	0	0	0	0	0
United Kingdom <sup>(1)</sup>	694 527	0	0	2 599	30 246	76	98 462	843 340
<b>Total</b>	<b>1 000 374</b>	<b>0</b>	<b>0</b>	<b>7 119</b>	<b>30 516</b>	<b>77</b>	<b>125 649</b>	<b>1 181 165</b>

A. According to OSPAR Recommendation 2000/4 on a Harmonised Pre-screening Scheme for Offshore Chemicals 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)  
Reference Number: 2004-10).

C. Substance listed in the OSPAR List of Chemicals for Priority Action (LCPA) (including its updates). Previously called Annex 2 substances because  
it referred to Annex 2 of the 1998 OSPAR Strategy with regard to Hazardous Substances. This Annex 2 has now been replaced by the LCPA. (Reference Number: 2004-12)

D. Inorganic substance with LC<sub>50</sub> or EC<sub>50</sub> less than 1 mg/l.

E. Biodegradation of the substance is less than 20% during 28 days.

F. Substance meets two of the following three criteria:

I. (biodegradation in 28 days less than 70% (OECD 301A, 301E) or less than 60% (OECD 301B, 301C, 301F, 306);

II. bioaccumulation log Pow > 3 or BCF > 100 and considering molecular weight;

III. toxicity LC<sub>50</sub> < 10mg/l or EC<sub>50</sub> < 10mg/l.

G. Inorganic substance with LC50 or EC50 over 1 mg/l.

H. Substance does not fulfill the above mentioned criteria (1-7) and is therefore ranked according to OSPAR Recommendation 2000/4.

(1) UK - the figure of 17430 kg was added to the total as "unresolved" category.

## Part B: Cumulative Report

## Part B: Cumulative Report

**Table 1: Number of installations in the OSPAR maritime area**

**Table 1a: Number of installations in the OSPAR maritime area with discharges to the sea, or emissions to the air 1984-2007\***

Country	1984	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Denmark	7	20	20	20	10,5	8	8,23	9	12	15	16	16
France <sup>1</sup>	0	0	0	0	0	0	0,1	0	0	0	0	0
Germany	1	3	3	4	2	1	1	2	2	2	3	3
Ireland	1	2	2	2	0	0	0	4	5	2,2	2,5	2,5
Netherlands	30	63	60	88	97	103,5	114,93	113,8	106,3	104,1	105	108
Norway <sup>2</sup>	13	24	25	34	93	90	83	61	53	54	59	60
Spain	1	1	1	1	1	1,5	9	5	2	0	0	1
UK <sup>3</sup>	90	79	79	79	81	152	169	193	164	218	186	298
<b>Total</b>	<b>143</b>	<b>192</b>	<b>190</b>	<b>228</b>	<b>284,5</b>	<b>356</b>	<b>385,26</b>	<b>387,8</b>	<b>344,3</b>	<b>395,3</b>	<b>371,5</b>	<b>488,5</b>

Country	2000	2001	2002	2003	2004	2005	2006	2007
Denmark	16	19	17	19	20	17	18	19
France <sup>1</sup>	0	0	0	0,1	0	0	0	0
Germany	3	3	2	2	3	4	3	3
Ireland	2,5	4	4	NI	6	6	7	7
Netherlands	108	114	114	123	124	129	128	130
Norway <sup>2</sup>	60	65	67	63	103	108	109	125
Spain	1	1	1	1	1	1	1	1
UK <sup>3</sup>	298	332	381	383	396	407	416	444
<b>Total</b>	<b>488,5</b>	<b>538</b>	<b>586</b>	<b>592</b>	<b>653</b>	<b>671</b>	<b>683</b>	<b>730</b>

<sup>1</sup> France had 1 exploratory well in 1995, and 1 in 2003.

<sup>2</sup> The fact that Norway reports subsea installations for the first time in 2004 leads to an artificial significant increase in the total.

<sup>3</sup> UK has revised its criteria for counting subsea installations as from 2000.

<sup>4</sup> The increase of the number of installations from year 2002 is mainly due to the change of rules in counting the installations. The numbers given for 2003 and 2004 reflect the current OSPAR database on offshore installations set up in accordance with OSPAR Decision 98/3 on the Disposal of Disused Offshore Installations

\* These data are taken from table 1 of Part A of the report.

**Table 1 (cont'd): Number of installations in the OSPAR maritime area**

**Table 1b <sup>4</sup>: Total number of installations in the OSPAR maritime area, 1984-2007\*\***

	1984	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2002
<b>Total</b>	NI	NI	NI	NI	320	438	459	554	520	560	587	591	1070

	2003	2004	2005	2006	2007
<b>Total</b>	1131 <sup>3</sup>	1130	1130	1281	1281

<sup>1</sup> France had 1 exploratory well in 1995, and 1 in 2003.

<sup>2</sup> The fact that Norway reports subsea installations for the first time in 2004 leads to an artificial significant increase in the total.

<sup>3</sup> UK has revised its criteria for counting subsea installations as from 2000.

<sup>4</sup> The increase of the number of installations from year 2002 is mainly due to the change of rules in counting the installations. The numbers given for 2003 and 2004 reflect the current OSPAR database on offshore installations set up in accordance with OSPAR Decision 98/3 on the Disposal of Disused Offshore Installations

\*\* These data are taken from the OSPAR inventory on offshore installations

## Part B: Cumulative Report

**Table 1c: Number of installations by type of installation in the OSPAR maritime area with discharges to the sea, or emissions to the air, 1993-2007\***

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Oil	88	104	99	133	120	135	137	174	152	153	146	148	148	151	154
Gas	148	183	204	207	171	164	186	239	223	225	254	257	257	259	274
Subsea	6	6	75	5	6	87	44	6,5	81	120	143	179	184	190	206
Drilling	43	63	7	43	47	9	4	69	76	86	45	58	71	75	85
Other	0	0	0	0	0	0	0	0	5	2	4	11	11	8	11
<b>Total</b>	<b>285</b>	<b>356</b>	<b>385</b>	<b>388</b>	<b>344</b>	<b>395</b>	<b>371</b>	<b>489</b>	<b>537</b>	<b>586</b>	<b>592</b>	<b>653</b>	<b>671</b>	<b>683</b>	<b>730</b>

\* These data are taken from table 1 of Part A of the report.

## Part B: Cumulative Report

**Table 2: Oily aqueous discharges to the maritime area \***

**Table 2a: Oil discharged in displacement and produced water (in tonnes), 1984-2007**

Country	1984	1990	1994	1996	1998	2000	2001	2002	2003	2004	2005
							Dispersed	Dispersed	Dispersed	Dispersed	Dispersed
Denmark	57	36	138	164	174	271	290	294	358	431	446
Germany	NI	NI	0	0	0	0,045	0,22	0,17	0,20	0,20	0,15
Ireland	NI	NI	NI	0	0,02	0,245	NI	NI	NI	0,12	0,02
Netherlands	76	262	265	249	204	189	252	148	114	119	108
Norway	154	460	1 009	1 750	2 492	3 047	3 153	2 827	2 584	2 653	2 833
Spain	0	0,065	0	0	0	0	0	0	0	0	0
UK	1 430	3 187	4 615	5 784	5 692	5 751	5 694	5 721	5 276	5 279	4 970
<b>Total</b>	<b>1 717</b>	<b>3 945</b>	<b>6 027</b>	<b>7 947</b>	<b>8 562</b>	<b>9 258</b>	<b>9 390</b>	<b>8 990</b>	<b>8 332</b>	<b>8 482</b>	<b>8 357</b>

### Dissolved from 2001

Country	2006	2007
	Dispersed	Dispersed
Denmark	385,13	385,72
Germany	0,132	0,122
Ireland	0,045	0,030
Netherlands	113,5	146
Norway	2 379	1 626
Spain	0	0
UK	4 357	2 960
<b>Total</b>	<b>7 235</b>	<b>5 118</b>

Country	2001	2002	2003	2004	2005	2006	2007
	Dissolved						
Denmark	205	192	265	292	348	359,53	353,39
Germany	0,32	0,42	0,50	0,80	0,76	0,952	0,591
Ireland	NI	NI	NI	0,38	0,02	0,004	0,050
Netherlands	82	57	72	76	70	52,4	69
Norway	1 101	1 165	906	1 547	1 524	1 711	1 879
Spain	0	0	0	0	0	0	0
UK	3 710	4 260	3 599	3 276	3 049	2 756	2 273
<b>Total</b>	<b>5 098</b>	<b>5 674</b>	<b>4 843</b>	<b>5 192</b>	<b>4 992</b>	<b>4 880</b>	<b>4 575</b>

**Table 2: Oily aqueous discharges to the maritime area \***

**Table 2b: Quantity of displacement and produced water discharged daily to the sea (in m<sup>3</sup>/day), 1984-2007**

Country	1984	1990	1994	1996	1998	2000	2001	2002	2003	2004	2005	2006	2007
Denmark	NI	NI	14 247	13 425	18 000	43 909	46 273	44 158	54 243	67 578	74 522	76 677	75 204
Germany			0	0	0	14	14	19	18	22	22	26	23
Ireland			NI	7	6,69	6	7	8	NI	8	7	9	6
Netherlands			35 105	35 214	30 303	31 820	38 117	24 263	21 381	23 313	24 275	26 429	34 064
Norway			316 029	412 283	462 969	461 323	493 342	490 826	524 910	537 342	533 349	510 618	558 647
Spain			NI	0	0	0	0	0	0	0	0	2	3
UK			512 657	567 540	693 151	652 188	696 482	738 082	719 950	690 481	642 967	603 112	555 784
<b>Total</b>			<b>878 038</b>	<b>1 028 469</b>	<b>1 204 430</b>	<b>1 189 260</b>	<b>1 274 236</b>	<b>1 297 356</b>	<b>1 320 502</b>	<b>1 318 745</b>	<b>1 275 143</b>	<b>1 216 873</b>	<b>1 223 730</b>

\* These data are taken from table 2 of Part A of the report.

The data for 1992, 1995, 1997 and 1999 are available in previous reports.

**Table 2c: Total amount of produced water and displacement water discharged, and produced water injected**

	Volume 2001	Volume 2002	Volume 2003	Volume 2004	Volume 2005	Volume 2006	Volume 2007
PW*	397 342 936	406 980 758	419 235 111	422 925 843	413 865 753	398 629 647	401 516 892
DPW**	67 753 196	66 554 292	62 747 873	58 416 126	51 561 436	45 740 777	45 143 746
IPW*	30 354 834	46 619 734	58 960 839	74 978 612	76 893 589	80 185 640	87 721 185
<b>Total</b>	<b>465 096 132</b>	<b>520 154 784</b>	<b>540 943 823</b>	<b>556 320 581</b>	<b>542 320 778</b>	<b>524 556 064</b>	<b>534 381 823</b>

\* Produced and injected water as mentioned in Table 2a in Part A

\*\* Displacement water as mentioned in Table 2b in Part A

## Part B: Cumulative Report

**Table 3: Installations which do not meet OSPAR performance standard for dispersed oil in aqueous discharges <sup>A\*</sup>**

**Table 3a <sup>B</sup>: Number of installations with discharges exceeding the 40 mg oil/l performance standard, 1984-2006, and quantity of oil discharged by these installations (in tonnes)**

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total number of installations with discharges in the Convention area	190	228	285	356	385	388	344	395	371	489	537	586	623	648	671	671
Number of installations exceeding 40 mg/l	68	65	64	59	46	45	32	39	28	15	23	20	22	28	25	14
Quantity of dispersed oil discharged	2027	4299	1017	1724	2429	840	607	420	153	365	312	216	217	737	1044	469

**Table 3b <sup>B</sup>: Number of installations with discharges exceeding the 30 mg oil/l performance standard, valid from 2007 onwards, and quantity of oil discharged by these installations (in tonnes)**

	2007
Total number of installations with discharges in the Convention area	730
Number of installations exceeding 30 mg/l	22
Quantity of dispersed oil discharged	319

1. "Dispersed oil", or aliphatics, as measured according to the PARCOM Procedure described in the "Methods of sampling and analysis for implementing the provisional target standard for discharges from oil and gas production platforms (OSPAR Reference document OSPAR 1997-16)

A. The performance standard of 40 mg/l is defined on the basis of a monthly average. Most Contracting Parties, however, reported until 2000 only installations which exceeded the 40 mg/l performance standard on the basis of an annual average. From 2001 onwards, all the data is based on annual averages.

B. Data in Tables 3a and 3b refer to dispersed oil only.

The figures for Contracting Parties' total amount of oil discharged have been rounded up. The overall total value is the exact figure and may differ slightly from the sum of the Contracting Parties' total amount of oil discharged.

\* These data are taken from table 3 of Part A of the report.

**Table 3: Installations which do not meet OSPAR performance standard for dispersed oil in aqueous discharges <sup>A\*</sup>**

**Table 3c: Number of installations with discharges exceeding the 40 mg oil/l performance standard, 1994-2006, by Contracting Party, and quantity of oil discharged by these installations (in tonnes)**

Country	1994		1996		1997		1998		1999		2000		2001	
	Number of installations	Amount discharged												
Denmark	1	3	2	2	1	4	2	27	2	29	2	42	1	6
Germany	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Ireland	NI	NI	0	0	0	0	0	0	1	0,3	1	0,2	0	0
Netherlands	22	17	16	5	10	5	10	5	7	4	5	2	3	1
Norway	6	187	3	32	2	46	3	26	2	22	2	81	2	95
Spain	NI	NI	0	0	0	0	0	0	0	0	0	0	0	0
UK	30	1 517	24	702	19	551	24	362	16	98	5	240	16	210
<b>Total</b>	<b>59</b>	<b>1 724</b>	<b>45</b>	<b>741</b>	<b>32</b>	<b>606</b>	<b>39</b>	<b>420</b>	<b>28</b>	<b>153</b>	<b>15</b>	<b>365</b>	<b>23</b>	<b>313</b>

Country	2002		2003		2004		2005		2006	
	Number of installations	Amount discharged								
Denmark	0	0	1	52	0	0	0	0	0	0
Germany	0	0	0	0	0	0	0	0	0	0
Ireland	0	0	NI	NI	1	0,12	0	0	0	0
Netherlands	5	2	4	3	0	0	0	0	0	0
Norway	1	82	0	0	3	344	4	468	3	338,7
Spain	0	0	0	0	0	0	0	0	0	0
UK	14	130	17	162	23	393	21	576	11	477
<b>Total</b>	<b>20</b>	<b>216</b>	<b>22</b>	<b>217</b>	<b>27</b>	<b>737</b>	<b>25</b>	<b>1 044</b>	<b>14</b>	<b>816</b>

A. The performance standard of 40 mg/l is defined on the basis of a monthly average. Most Contracting Parties, however, reported until 2000 only installations which exceeded the 40 mg/l performance standard on the basis of an annual average. From 2001 onwards, all the data is based on annual averages.

The figures for Contracting Parties' total amount of oil discharged have been rounded up. The overall total value is the exact figure and may differ slightly from the sum of the Contracting Parties' total amount of oil discharged.

\* These data are taken from table 3 of Part A of the report.

**Table 3: Installations which do not meet OSPAR performance standard for dispersed oil in aqueous discharges <sup>A\*</sup>**

**Table 3d: Number of installations with discharges exceeding the 30 mg oil/l performance standard, valid from 2007 onwards, by Contracting Party and quantity of oil discharged by these installations (in tonnes)**

Country	2007	
	Number of installations	Amount discharged
Denmark	0	0
Germany	0	0
Ireland	0	0
Netherlands	4	1,6
Norway	2	22
Spain	0	0
UK	16	295
<b>Total</b>	<b>22</b>	<b>319</b>

## Part B: Cumulative Report

**Table 4: Use and discharges of organic-phase drilling fluids (OPF) and cuttings**

**Table 4a: Quantities of oil and other organic-phase fluids discharged via cuttings (in tonnes), 1984-2007 \***

Country	1984	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
	Oil & Diesel <sup>1</sup>	Oil	Oil	Oil	Oil	Oil	Oil	Oil	Total OPF <sub>2</sub>							
Denmark	676	507	0		0	0	0	0	31	0	0	0	0	0	0	0
Germany	NI	NI	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ireland	NI	NI	NI	NI	NI	NI	0	0	0	0	NI	NI	NI	NI	NI	0
Netherlands	1 017	284	142	41	0	0	0	0	0	0	0	0	0	0	0	0
Norway	3 466	636	683	83	0	0	0	0	0	0	0	2 014	1 127	954	342	425
Spain	0	0	0	0	0	0	NI	0	0	0	0	0	0	0	0	0
UK	19 800	12 312	11 225	7 169	4 588	4 582	3 865	3 965	7 203	5 005	4 591	1 937	200	0	0	0
<b>Total</b>	<b>24 959</b>	<b>13 739</b>	<b>12 050</b>	<b>7 293</b>	<b>4 588</b>	<b>4 582</b>	<b>3 865</b>	<b>3 965</b>	<b>7 234</b>	<b>5 005</b>	<b>4 591</b>	<b>3 951</b>	<b>1 327</b>	<b>954</b>	<b>342</b>	<b>425</b>

Country	2005	2006	2007
	Total OPF <sub>2</sub>	Total OPF <sub>2</sub>	Total OPF <sub>2</sub>
Denmark	0	0	0
Germany	0	0	0
Ireland	0	0	0
Netherlands	0	0	0
Norway	0	0	0
Spain	0	0	0
UK	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>

<sup>1</sup> Diesel oil represents roughly 10% of total oil & diesel oil discharged in 1984. The discharge of diesel oil ceased in 1985.

<sup>2</sup> Total OPF is the sum of OBF and non-OBF OPF. No oil-based mud contaminated cuttings have been discharged since 1996.

\* These data are taken from table 4b of Part A of the report.

## Part B: Cumulative Report

**Table 4b: Number of wells drilled with OPF, 1984-2000 \***

Country	1984 <sup>(1)</sup>	1990 <sup>(1)</sup>	1991 <sup>(1)</sup>	1992 <sup>(1)</sup>	1993 <sup>(1)</sup>	1999 <sup>(2)</sup>		2000 <sup>(2)</sup>	
	OBM	OBM	OBM	OBM	OBM	OBM	OPF	OBM	OPF
Denmark	13	20	21	22	32	8	NA	5	NA
Germany	0	1	1	0	0	4	0	3	0
Ireland	NI	4	0	0	NI	NI	NA	NI	NA
Netherlands	56	49	59	52	37	22	0	16	0
Norway	76	96	97	138	116	98	NA	NI	NA
Spain	NI	NI	NI	NI	NI	0	NA	0	NA
United Kingdom	290	314	425	372	336	0	166	133	NA
<b>Total</b>	<b>435</b>	<b>484</b>	<b>603</b>	<b>584</b>	<b>521</b>	<b>132</b>	<b>166</b>	<b>157</b>	<b>NA</b>

(1) data on OBM only for these years. Other OPF not yet in use.

(2) OPF (non-OBF OPF) was only reported on a voluntary basis.

**Table 4c: Number of wells drilled with OPF, with discharge of contaminated cuttings to the maritime area, 2001-2007\***

Wells for which all cuttings are re-injected or brought to shore are not taken into account in this table.

Country	2001		2002		2003		2004		2005		2006	
	OBF	non-OBF OPF	OBF	non-OBF OPF	OBF	non-OBF OPF	OBF	non-OBF OPF	OBF	non-OBF OPF	OBF	non-OBF OPF
Denmark	0	0	0	0	0	0	0	0	0	0	0	0
Germany	0	0	0	0	0	NI	0	0	0	0	0	0
Ireland	NI	NA	0	1	NI	NI	0	0	0	0	0	0
Netherlands	0	0	0	0	0	0	17	0	0	0	0	0
Norway	0	24	0	13	0	7	0	4	0	0	0	0
Spain	0	0	NA	N/A	NA	NA	0	0	0	0	0	0
United Kingdom	3	3	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>3</b>	<b>27</b>	<b>0</b>	<b>14</b>	<b>0</b>	<b>7</b>	<b>17</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Country	2007	
	OBF	non-OBF OPF
Denmark	0	0
Germany	0	0
Ireland	0	0
Netherlands	0	0
Norway	0	0
Spain	0	0
United Kingdom	0	0
<b>Total</b>	<b>0</b>	<b>0</b>

\* The data in tables 4b and 4c are taken from table 4 of Part A.

## Part B: Cumulative Report

**Table 5: Spillage and flaring of oil \***

**Table 5a: Quantity of oil spills, 1994-2007 - Spills less than 1 tonne ( $\leq 1$  T) and spills above 1 tonne ( $> 1$  T)**

Country	1994		1995		1996		1997		1998		1999		2000		2001		2002		2003		2004		
	$\leq 1$ T	$> 1$ T																					
Denmark	105	10	126	1	105	1	71	2	110	0	99	4	69	4	79	0	58	2	82	2	70	0	
Germany	NI	NI	NI	NI	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Ireland	NI	NI	NI	NI	0	0	0	0	1	1	NI	NI	NI	NI	0	0	0	0	NI	NI	0	0	
Netherlands	82	2	0	61	63	2	63	1	60	0	16	1	27	0	35	1	24	0	33	0	31	1	
Norway	349	7	281	14	246	9	245	10	249	15	226	12	198	5	221	7	238	9	121	11	108	10	
Spain	NI	NI	NI	NI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
United Kingdom	136	21	129	9	276	19	304	24	366	11	347	11	406	12	408	17	454	16	366	6	445	13	
<b>Total</b>	<b>672</b>	<b>40</b>	<b>536</b>	<b>85</b>	<b>690</b>	<b>31</b>	<b>683</b>	<b>37</b>	<b>786</b>	<b>27</b>	<b>688</b>	<b>28</b>	<b>700</b>	<b>22</b>	<b>743</b>	<b>25</b>	<b>774</b>	<b>27</b>	<b>602</b>	<b>19</b>	<b>654</b>	<b>24</b>	

Country	2005		2006		2007	
	$\leq 1$ T	$> 1$ T	$\leq 1$ T	$> 1$ T	$\leq 1$ T	$> 1$ T
Denmark	44	1	46	0	30	1
Germany	0	0	0	0	0	0
Ireland	0	0	3	0	3	0
Netherlands	25	0	25	0	35	0
Norway	141	6	115	7	155	12
Spain	0	0	0	0	0	0
United Kingdom	428	10	305	8	270	9
<b>Total</b>	<b>638</b>	<b>17</b>	<b>494</b>	<b>15</b>	<b>493</b>	<b>22</b>

\* These data are taken from table 5A of the report.

**Table 5: Spillage and flaring of oil \***

**Table 5b: Quantity of oil spilled, in tonnes, 1994-2007**

Country	1994		1995		1996		1997		1998		1999		2000	
	≤ 1 T	> 1 T	≤ 1 T	> 1 T	≤ 1 T	> 1 T	≤ 1 T	> 1 T	≤ 1 T	> 1 T	≤ 1 T	> 1 T	≤ 1 T	> 1 T
Denmark	<26	10	<66	1	7,3	1,1	11,7	2,8	11	0	11	9	5,5	402,5
Germany	NI	NI	NI	NI	0	0	0	0	0	0	0	0	0	3
Ireland	NI	NI	NI	NI	0	0	0	0	<1	0	NI	NI	NI	NI
Netherlands	<8,2	2	1,5	0	1	38	0,9	18	1,26	0	1	5,6	0,5	0
Norway	32	23	28	89	37	26	35,6	72,4	25	131	23	114	16	12
Spain	NI	NI	NI	NI	0	0	0	0	0	0	0	0	0	0
United Kingdom <sup>1</sup>	17,8	155,2	19,2	64,5	80,9	45,1	34,1	828,9	36,9	97,1	42	77	38	36
<b>Total</b>	<b>&lt;84</b>	<b>190,2</b>	<b>&lt;114,7</b>	<b>154,5</b>	<b>126,2</b>	<b>110,2</b>	<b>82,3</b>	<b>922,1</b>	<b>&lt;74,2</b>	<b>228,1</b>	<b>77</b>	<b>205,6</b>	<b>60</b>	<b>453,5</b>

Country	2001		2002		2003		2004		2005		2006		2007	
	≤ 1 T	> 1 T	≤ 1 T	> 1 T	≤ 1 T	> 1 T	≤ 1 T	> 1 T	≤ 1 T	> 1 T	≤ 1 T	> 1 T	≤ 1 T	> 1 T
Denmark	15	0	7	21	12	6,8	6	50	3	3	4	0	2	30
Germany	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ireland	0	0	0	0	NI	NI	0	0	0	0	0,04	0	0,2	0
Netherlands	0,8	3,04	1	0	0,17924	0	0,119	1,625	0,2	0	0,7	0,0	1,2	0
Norway	18,4	24,7	16,5	76,4	47	690	7	58	13	303	10	95	10	3 805
Spain	0	0	0	0	0	0	0	0	0	0	0	0	0	0
United Kingdom <sup>1</sup>	33,5	509,1	31,24	60,46	21	47	29	47	38	39	23	40	12	47
<b>Total</b>	<b>68</b>	<b>537</b>	<b>56</b>	<b>158</b>	<b>80</b>	<b>744</b>	<b>42</b>	<b>157</b>	<b>54</b>	<b>345</b>	<b>38</b>	<b>135</b>	<b>25</b>	<b>3 882</b>

1. Revised data for 2001: Pipeline leak investigated in 2001 resulted in operator being fined for a discharge of 450 tonnes of crude oil

\* These data are taken from table 5a of Part A of the report.

**Table 5c: Number of spills of chemicals and amount of chemical spills in tonnes/year, 2003-2007**

	2003	2004	2005	2006	2007
Number of spills of chemicals*	188	171	201	230	307
Amount of tonnage of chemicals discharged	1 520	1 067	950	840	1 181

## Part B: Cumulative Report

**Table 6: Emissions to air, 1992-2007 \***

Country	CO <sub>2</sub> (10 <sup>6</sup> tonnes)													
	1992	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Denmark	NI	1,23	1,58	1,64	1,87	2,47	2,3	2,2	2,2	2,2	2,3	2,1	2,12	2,11
Germany	0,01	0,01	0,02	0,03	0,02	0,09	0,01	0,02	0,01	0,02	0,03	0,06	0,05	0,06
Ireland	NI	NI	0,10	0,025	0,11	0,1	0,09	0,08	0,07	NI	0,07	0,06	0,06	0,06
Netherlands	NI	1,22	1,11	1,19	1,59	1,29	1,20	1,33	1,33	1,27	1,27	1,33	1,29	1,39
Norway	7,5	8,1	8,9	8,47	9,34	9,38	10,09	11,1	10,79	11,40	11,34	12	12	11
Spain	0,86	NI	0,025	0,03	0	0	0,03	0,02	0,04	0,03	0,03	0,06	0,04	0,04
United Kingdom	79,36	20,46	15,9	19,1	20,9	19,8	18,3	19	19,9	18,79	18,52	18	16	17
<b>Total</b>	<b>88</b>	<b>31</b>	<b>28</b>	<b>30</b>	<b>34</b>	<b>33</b>	<b>32</b>	<b>34</b>	<b>34</b>	<b>34</b>	<b>34</b>	<b>34</b>	<b>32</b>	<b>32</b>

Country	NO <sub>x</sub> (10 <sup>3</sup> tonnes)													
	1992	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Denmark	NI	6,24	6,77	8,4	NI	13,62	12,3	5,35	5,30	5,30	7,2	6,5	6,7	7
Germany	0,12	0,05	0,08	0,10	0,04	0,13	0,07	0,06	0,04	0,08	0,1	0,139	0,036	0,031
Ireland	NI	NI	0,25	0,61	0,26	0,2	0,17	0,18	0,16	NI	0,16	0,145	0,270	0,245
Netherlands	NI	5,7	5,08	5,83	5,05	4,64	5,64	4,8	5	6,6	3,74	3,81	3,86	4,00
Norway	31,3	32	34,7	42,97	46,1	41	44,2	51	48,7	50,3	51,6	54,4	54	54
Spain	0,8	NI	0,113	0,14	0	0	0,11	0,04	0,08	0,07	0,0764	0,1288	0,0843	0,008
United Kingdom	195,7	56,69	38,8	57,8	66,7	55,8	45,8	53,53	69,43	61,25	60,1	59,0	52,0	52,0
<b>Total</b>	<b>228</b>	<b>101</b>	<b>86</b>	<b>116</b>	<b>118</b>	<b>115</b>	<b>108</b>	<b>115</b>	<b>129</b>	<b>124</b>	<b>123</b>	<b>124</b>	<b>117</b>	<b>117</b>

Country	nm VOCs (10 <sup>3</sup> tonnes)													
	1992	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Denmark	NI	1	1	1	NI	2	9	10	10	8	5	4	2	3
Germany	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Ireland	NI	NI	0	0	0	0	0	0	0	NI	0	0	0	0
Netherlands	NI	10	7	5	8	8	6	6	5	5	4	4	4	4
Norway	122	99	182	189	174	191	213	229	198	165	132	94	80	73
Spain	0	NI	0	0	0	0	0	0	0	0	0	0	0	0
United Kingdom	208	76	59	107	80	75	73	87	93	79	66	49	51	54
<b>Total</b>	<b>331</b>	<b>185</b>	<b>249</b>	<b>302</b>	<b>262</b>	<b>276</b>	<b>301</b>	<b>332</b>	<b>307</b>	<b>257</b>	<b>207</b>	<b>151</b>	<b>137</b>	<b>134</b>

\* These data are taken from table 6 of Part A of the report.

**Table 6: Emissions to air, 1992-2007 \* (cont'd)**

**CH<sub>4</sub> (10<sup>3</sup> tonnes)**

Country	1992	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Denmark	NI	2	2	3	5	2	3	10	7	7	8	6	2	5
Germany	0	0	0	0	0	0	0	0	0	0	0	1	3	1
Ireland	NI	NI	1	1	3	16	1	25	0	NI	1	0	3	1
Netherlands	NI	55	41	25	21	20	15	16	13	19	11	12	12	14
Norway	11	13	26	29	26	29	29	34	32	31	31	29	26	25
Spain	1	NI	0	0	0	0	0	0	0	0	0	0	0	0
United Kingdom	226	70	56	79	72	65	56	57	52	51	55	41	37	48
<b>Total</b>	<b>238</b>	<b>140</b>	<b>126</b>	<b>136</b>	<b>126</b>	<b>132</b>	<b>104</b>	<b>142</b>	<b>105</b>	<b>108</b>	<b>106</b>	<b>90</b>	<b>83</b>	<b>94</b>

**SO<sub>2</sub> (10<sup>3</sup> tonnes)**

Country	1992	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Denmark	NI	NI	0,1	0,1	0,1	0,3	0,3	0,6	0,3	0,4	0,5	0,2	0,2	0,2
Germany	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Ireland	NI	NI	0,0	0,0	0,1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Netherlands	NI	0,4	0,5	0,4	0,2	0,2	0,1	0,2	0,2	0,2	0,1	0,1	0,2	0,2
Norway	NI	0,2	0,3	0,0	0,6	0,1	1,4	0,9	0,8	0,6	0,6	0,7	0,7	0,7
Spain	NI	NI	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
United Kingdom	31,4	10,4	2,3	13,9	11,6	9,7	6,4	6,3	2,0	2,6	2,9	3,0	2,6	1,7
<b>Total</b>	<b>31,4</b>	<b>11,0</b>	<b>3,2</b>	<b>14,4</b>	<b>12,7</b>	<b>10,3</b>	<b>8,2</b>	<b>8,0</b>	<b>3,3</b>	<b>3,7</b>	<b>4,2</b>	<b>4,1</b>	<b>3,7</b>	<b>2,9</b>

## Part B: Cumulative Report

**Table 7: The use and discharge of offshore chemicals**

**Year: 2001-2007**

*The Netherlands have included 2 575 451 kg of unknown chemicals in their total in 2006*

UK Report only contains a full report for the first ¾ of the year 2006. For the last quarter of 2006 the figures only contain a full report for production installations and not drilling installations

**Table 7a: Quantity of offshore chemicals used and discharged in kg/year on the PLONOR\* List used and discharged in kg/year**

Country	Quantity of chemicals used (kg)						
	2001	2002	2003	2004	2005	2006	2007
Denmark	92 514 186	72 358 514	60 382 417	52 667 440	41 208 531	77 113 231	66 356 341
France	0	0	526 654	NI	NA	NA	NA
Germany	21 300	4 000	1 098 862	977 651	2 138 463	716 405	710 225
Ireland	NI	NI	NI	830 542	9 287	1 549 666	3 876 616
Netherlands	23 995 497	NI	31 899 171	26 342 421	35 701 161	36 984 151	27 052 063
Norway	NI	NI	237 163 000	226 932 000	228 476 000	227 536 000	253 122 000
Spain	0	NA	1 272 695	0	0	0	0
United Kingdom	163 353 409	249 030 742	255 774 970	126 364 612	271 496 796	243 677 347	294 780 970
<b>Total</b>	<b>279 884 392</b>	<b>321 393 256</b>	<b>588 117 769</b>	<b>434 114 666</b>	<b>579 030 238</b>	<b>587 576 800</b>	<b>645 898 215</b>

Country	Quantity of chemicals discharged (kg)						
	2001	2002	2003	2004	2005	2006	2007
Denmark	51 541 713	50 619 400	38 246 458	30 666 043	28 296 022	37 042 984	30 919 208
France	0	0	526 654	NI	NA	NA	NA
Germany	19 170	3 600	517 593	761 332	1 036 263	347 565	342 003
Ireland	NI	NI	NI	460 057	2 566	1 040 761	1 660 002
Netherlands	12 580 602	NI	10 920 587	10 946 870	12 104 182	15 093 836	8 191 288
Norway	115 098 100	102 934 930	78 976 000	63 582 000	56 370 000	63 424 400	73 624 000
Spain	0	NA	976 450	0	0	0	0
United Kingdom	72 045 032	109 474 671	113 811 824	64 219 437	117 027 290	102 846 899	104 733 835
<b>Total</b>	<b>251 284 617</b>	<b>263 032 601</b>	<b>243 975 566</b>	<b>170 635 739</b>	<b>214 836 323</b>	<b>219 796 445</b>	<b>219 470 336</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).

**Table 7: The use and discharge of offshore chemicals**

**Year: 2001-2007**

**Table 7b: Quantity of offshore chemicals used and discharged in kg/year, in inorganic substances with LC50 or EC50 > 1 mg/l\***

Country	Quantity of chemicals used (kg)						
	2001	2002	2003	2004	2005	2006	2007
Denmark				14 196 383	12 738 121	16 361 467	7 996 987
France				NA	NA	NA	NA
Germany				0	0	0	0
Ireland				NI	0	0	2 252
Netherlands				2 032 827	1 916 271	3 066 667	367 282
Norway				NI	2 671 000	2 654 000	1 860 000
Spain				0	0	0	0
United Kingdom				33 542	73 409	949 303	2 326 787
<b>Total</b>				<b>16 262 752</b>	<b>17 398 801</b>	<b>23 031 437</b>	<b>12 553 308</b>

Country	Quantity of chemicals discharged (kg)						
	2001	2002	2003	2004	2005	2006	2007
Denmark				980 564	138 620	408 828	169 353
France				NA	NA	NA	NA
Germany				0	0	0	0
Ireland				NI	0	0	870
Netherlands				240 660	172 416	364 578	179 066
Norway				NI	137 000	126 000	143 000
Spain				0	0	0	0
United Kingdom				25 964	64 902	376 830	483 930
<b>Total</b>				<b>1 247 188</b>	<b>512 938</b>	<b>1 276 236</b>	<b>976 219</b>

\* No data have been submitted prior to 2004

## Part B: Cumulative Report

**Table 7: The use and discharge of offshore chemicals**

**Year: 2001-2007**

**Table 7c: Quantity of offshore chemicals used and discharged in kg/year, in substances ranked according to OSPAR Recommendation 2000/4 and which do not fulfill the criteria of tables 7 a, b, d, e, f, g**

Country	Quantity of chemicals used (kg)						
	2001	2002	2003	2004	2005	2006	2007
Denmark	16 890 132	29 776 007	28 646 471	17 001 572	14 093 489	13 668 132	12 049 738
France	0	0	3 025	NA	NA	NA	NA
Germany	55 700	84 900	361 531	424 432	387 282	127 403	124 599
Ireland	NI	NI	NI	NI	0	150 115	151 051
Netherlands	7 339 587	NI	3 809 425	2 811 406	2 809 975	5 490 597	5 443 977
Norway	NI	NI	79 178 000	83 915 000	82 626 000	87 938 000	93 313 000
Spain	0	NA	16 950	0	0	0	0
United Kingdom	163 288 565	49 435 450	27 483 033	63 147 289	44 840 086	100 831 149	100 834 384
<b>Total</b>	<b>187 573 984</b>	<b>79 296 357</b>	<b>139 498 435</b>	<b>167 299 699</b>	<b>144 756 832</b>	<b>208 205 396</b>	<b>211 916 749</b>

Country	Quantity of chemicals discharged (kg)						
	2001	2002	2003	2004	2005	2006	2007
Denmark	5 009 968	4 580 064	4 194 417	3 191 761	3 223 911	4 438 463	4 629 994
France	0	0	3 025	NA	NA	NA	NA
Germany	0	0	19 944	69 099	41 275	11 223	3 659
Ireland	NI	NI	NI	NI	0	110 604	61 016
Netherlands	311 191	NI	157 936	157 648	193 412	254 341	263 184
Norway	11 815 950	10 897 930	10 977 000	10 599 000	10 103 000	10 952 000	11 880 000
Spain	0	NA	3 450	0	0	0	0
United Kingdom	48 535 999	16 904 059	11 101 380	29 930 079	14 056 179	13 144 219	13 866 642
<b>Total</b>	<b>65 673 108</b>	<b>32 382 053</b>	<b>26 457 152</b>	<b>43 947 587</b>	<b>27 617 777</b>	<b>28 910 850</b>	<b>30 704 495</b>

**Table 7: The use and discharge of offshore chemicals**  
**Year: 2001-2007**

**Table 7d: Quantity of offshore chemicals used and discharged in kg/year, on the List of Chemicals for Priority Action (LCPA)\***

Country	Quantity of chemicals used (kg)						
	2001	2002	2003	2004	2005	2006	2007
Denmark	0	900	606	136	0	0	0
France	0	0	0	NA	0	0	0
Germany	0	0	0	0	0	0	0
Ireland	NI	NI	NI	NI	0	0	0
Netherlands	2 042	NI	302	0	0	0	0
Norway	NI	NI	844	800	2 505	1 094	497
Spain	0	NA	0	0	0	0	0
UK	0	222	2 090	2 285	191	1896	2128
<b>Total</b>	<b>2 042</b>	<b>1 122</b>	<b>3 842</b>	<b>3 221</b>	<b>2 696</b>	<b>2 990</b>	<b>2 625</b>

Country	Quantity of chemicals discharged (kg)						
	2001	2002	2003	2004	2005	2006	2007
Denmark	0	300	60	14	0	0	0
France	0	0	0	NA	NA	NA	0
Germany	0	0	0	0	0	0	0
Ireland	NI	NI	NI	NI	0	0	0
Netherlands	145	NI	271	0	0	0	0
Norway	917	765	240	200	30	213	1
Spain	0	NA	0	0	0	0	0
UK	0	46	171	191	191	141	69
<b>Total</b>	<b>1 062</b>	<b>1 111</b>	<b>742</b>	<b>405</b>	<b>221</b>	<b>354</b>	<b>70</b>

\* Substance listed in the OSPAR List of Chemicals for Priority Action (LCPA) (including its updates). (Reference number: 2004-12)

## Part B: Cumulative Report

**Table 7: The use and discharge of offshore chemicals**

Year: 2001-2007

**Table 7e: Quantity of offshore chemicals used and discharged in kg/year, in inorganic substances with LC<sub>50</sub> or EC<sub>50</sub> less than 1 mg/l**

Country	Quantity of chemicals used (kg)						
	2001	2002	2003	2004	2005	2006	2007
Denmark	18 164 615	85 194	128 622	14 839	8 115	12 550	9 950
France	0	0	0	NA	NA	NA	0
Germany	0	0	2 000	0	0	0	0
Ireland	NI	NI	NI	NI	0	0	0
NL	260	NI	0	31	0	0	0
Norway	NI	NI	0	0	1 000	0	20
Spain	0	NA	0	0	0	0	0
UK	0	0	0	0	10 333	1 510	910
<b>Total</b>	<b>18 164 875</b>	<b>85 194</b>	<b>130 622</b>	<b>14 870</b>	<b>19 448</b>	<b>14 060</b>	<b>10 880</b>

Country	Quantity of chemicals discharged (kg)						
	2001	2002	2003	2004	2005	2006	2007
Denmark	156 968	43 443	58 553	1 215	54	4671	250
France	0	0	0	NA	NA	NA	0
Germany	0	0	0	0	0	0	0
Ireland	NI	NI	NI	NI	0	0	0
NL	1	NI	0	3	0	0	0
Norway	771	100	0	0	0	0	1
Spain	0	NA	0	0	0	0	0
UK	0	0	0	0	10 306	1440	864
<b>Total</b>	<b>157 740</b>	<b>43 543</b>	<b>58 553</b>	<b>1 218</b>	<b>10 360</b>	<b>6 111</b>	<b>1 115</b>

**Table 7: The use and discharge of offshore chemicals**

**Year: 2001-2007**

**Table 7f: Quantity of offshore chemicals used and discharged in kg/year, in substances where the biodegradation is less than 20% during 28 days**

Country	Quantity of chemicals used (kg)						
	2001	2002	2003	2004	2005	2006	2007
Denmark	1 041 714	1 324 413	1 813 142	1 782 941	894 141	582 599	302 503
France	0	0	0	NI	NA	NA	NA
Germany	0	0	3 239	4 333	4100	1516	1 400
Ireland	NI	NI	NI	NI	0	0	12 319
NL	1 112 344	NI	4 279 111	633 725	3 433 667	885 546	3 173 171
Norway	NI	NI	3 450 000	3 769 100	3 066 300	2 935 500	3 024 000
Spain	0	NA	0	0	0	0	0
UK	12 826 964	4 934 729	8 240 728	4 227 698	7 244 942	6 419 857	3 974 251
<b>Total</b>	<b>14 981 022</b>	<b>6 259 142</b>	<b>17 786 220</b>	<b>10 417 797</b>	<b>14 643 150</b>	<b>10 825 018</b>	<b>10 487 644</b>

Country	Quantity of chemicals discharged (kg)						
	2001	2002	2003	2004	2005	2006	2007
Denmark	200 844	166 387	163 236	123 729	106 127	93 032	44 682
France	0	0	0	NI	NA	NA	NA
Germany	0	0	3 104	634	4 100	1 458	1 400
Ireland	NI	NI	NI	NI	0	0	651
NL	9 592	NI	64 041	77 473	42 716	35 123	6 179
Norway	733 970	796 810	331 000	211 490	62 270	18 661	13 900
Spain	0	NA	0	0	0	0	0
UK	2 247 435	1 328 207	1 547 258	1 734 676	1 889 783	1577219	660 055
<b>Total</b>	<b>3 191 841</b>	<b>2 291 404</b>	<b>2 108 639</b>	<b>2 148 002</b>	<b>2 104 996</b>	<b>1 725 493</b>	<b>726 867</b>

## Part B: Cumulative Report

**Table 7: The use and discharge of offshore chemicals**

Year: 2001-2007

**Table 7g: Quantity of offshore chemicals used and discharged in kg/year, in substances which meet two of three PBT-criteria\***

Country	Quantity of chemicals used (kg)						
	2001	2002	2003	2004	2005	2006	2007
Denmark	1 695 332	1 353 975	1 341 775	1 494 033	1 322 226	1 066 200	575 771
France	0	0	0	NA	NA	NA	NA
Germany	18500	20 337	1 132 505	652 623	2 631 107	878 855	879 156
Ireland	NI	NI	NI	26	0	13 241	604 258
NL	919 017	NI	3 918 807	2 097 535	8 972 101	5 291 265	2 533 475
Norway	NI	NI	4 023 000	4 069 000	3 428 700	2 761 900	2 363 000
Spain	0	NA	0	0	0	0	0
UK	6 339 638	9 323 127	9 836 007	8 014 175	4 630 943	1 505 806	6 056 927
<b>Total</b>	<b>8 972 487</b>	<b>10 697 439</b>	<b>20 252 094</b>	<b>16 327 392</b>	<b>20 985 077</b>	<b>11 517 267</b>	<b>13 012 587</b>

Country	Quantity of chemicals discharged (kg)						
	2001	2002	2003	2004	2005	2006	2007
Denmark	347 438	332 519	206 293	301 211	319 223	195 040	76 655
France	0	0	0	NA	NA	NA	NA
Germany	175	183	1 372	9 429	9 316	50	50
Ireland	NI	NI	NI	1	0	4 364	880
NL	5 703	NI	11 368	39 107	16 560	13 811	10 182
Norway	327 472	210 150	293 000	81 900	33 985	23 450	9 900
Spain	0	NA	0	0	0	0	0
UK	895 102	1 051 622	1 318 525	4 062 814	1 399 510	631 877	1 234 498
<b>Total</b>	<b>1 575 890</b>	<b>1 594 474</b>	<b>1 830 558</b>	<b>4 494 462</b>	<b>1 778 594</b>	<b>868 592</b>	<b>1 332 165</b>

\* The criteria are as follows:

- I. (biodegradation in 28 days less than 70% (OECD 301A, 301E) or less than 60% (OECD 301B, 301C, 301F, 306);
- II. bioaccumulation log Pow > 3 or BCF > 100 and considering molecular weight;
- III. toxicity LC50 < 10mg/l or EC50 < 10mg/l.

## Part B: Cumulative Report

**Table 8: Total discharges and spillage of dispersed oil, in tonnes, 1984-2007**

Country	1984	1990	1992	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Denmark	763	543	81	178	196	172	173	185	201	679	305	322	377
Germany	0	NI	NI	NI	NI	NI	0	0	0	3	0	0	0
Ireland	0	NI	NI	NI	NI	NI	0	1	0,042	0,245	0	0	NI
Netherlands	1 153	546	285	275	232	288	284	205	169	190	256	149	114
Norway	3 900	1 096	1 491	1 064	1 519	1 813	2 440	2 648	2 887	3 081	3 210	2 921	3 321
Spain	0	0	0	0	0	0	0	0	0	0	0	0	0
United Kingdom <sup>1</sup>	21 360	15 499	12 335	9 371	9 835	9 876	13 856	10 832	10 387	5 473	6 010	5 817	5 345
<b>Total</b>	<b>27 176</b>	<b>17 684</b>	<b>14 192</b>	<b>10 888</b>	<b>11 783</b>	<b>12 150</b>	<b>16 752</b>	<b>13 872</b>	<b>13 643</b>	<b>9 426</b>	<b>9 782</b>	<b>9 209</b>	<b>9 157</b>

Country	2004	2005	2006	2007
Denmark	487	452	389	418
Germany	0	0	0	0
Ireland	0	0	0	0
Netherlands	121	108	114	147
Norway	2 718	3 149	2 484	5 441
Spain	0	0	0	0
United Kingdom <sup>1</sup>	5 355	5 047	4 420	3 019
<b>Total</b>	<b>8 681</b>	<b>8 756</b>	<b>7 407</b>	<b>9 025</b>

Notes :Spillages are not taken into account for 1990.

From 1997-1999, UK data include OPF.

<sup>1</sup> Revised data for 2001: Pipeline leak investigated in 2001 resulted in operator being fined for a discharge of 450 tonnes of crude oil

These data are taken from Table 2a Part A, Table 2b Part A and Table 5a of Part A



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