Decommissioning of disused offshore oil and gas installations in the North-East Atlantic



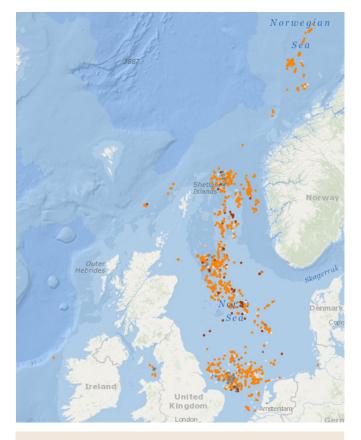
Key Message: OSPAR monitors the development of offshore installations and maintains an up-to-date inventory of all offshore oil and gas installations in the OSPAR Maritime Area. This fact sheet looks at decommissioning, the final phase of an oil and gas field when a field production cycle comes to an end, which involves activities such as the plugging of wells and removal of infrastructure. The dumping, and leaving wholly or partly in place, of disused offshore installations within the OSPAR Maritime Area is prohibited under OSPAR Decision 98/3 on the Disposal of Disused Offshore Installations. Decision 98/3 aims to ensure that derogations from the dumping prohibition remains exceptional.

Background

Offshore oil and gas activities have developed in the North-East Atlantic, also referred to as the OSPAR Maritime Area, over the past 50 years. OSPAR monitors the development of offshore installations and maintains an up-to-date inventory of all offshore oil and gas installations in the OSPAR Maritime Area. OSPAR Contracting Parties with oil and gas industry offshore installations are: Denmark, Germany, Ireland, the Netherlands, Norway, Spain and the United Kingdom.

Decommissioning, the final phase of an oil and gas field when a field production cycle comes to an end, involves activities such as the plugging of wells and removal of infrastructure. During the decommissioning phase, several impacts on the marine environment can occur.

- Physical impacts on the seabed and associated ecosystems, either by decommissioning activities itself (e.g. removal of pipelines or installations) or by leaving structures in-situ. These physical impacts include sediment disturbances;
- Possible releases of oil and chemicals during decommissioning activities or from disturbance of historic cutting piles;
- · Generation of underwater noise.



Offshore installations in the OSPAR Maritime Area (2019)

What has OSPAR done?

Re-emphasising its commitment to prevent the sea being used as a dumping ground for waste, whether from sea or from land based activities, the 1998 OSPAR Ministerial Meeting in Sintra, Portugal, adopted OSPAR Decision 98/3 on the Disposal of Disused Offshore Installations. Decision 98/3 prohibits dumping, and the leaving wholly or partly in place, of disused offshore installations within the OSPAR Maritime Area.

Only for certain categories, and subject to an assessment in accordance with Annex 2 of Decision 98/3, the competent authority of the relevant OSPAR Contracting Party may issue a derogation permit to leave installations or parts of installations in place. Categories in Annex 1 of Decision 98/3 include, for example, steel installations weighing more than ten thousand tonnes in air or gravity based concrete installations.

In order to improve advancement of decommissioning technology, at OSPAR's Offshore Industry Committe meeting in 2020, Contracting Parties and Observer Organisations agreed that they would give an annual update on progress made on decommissioning technology developments that would help reduce the number of derogation categories that fall under Annex 1 of Decision 98/3.

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Did it work?

Contracting Parties have fully implemented the ban on the dumping or leaving in place of disused offshore installations. In the OSPAR Maritime Area, more than 1300 offshore installations are operational. Since OSPAR Decision 98/3 was adopted, approximately 170 of these installations have been decommissioned.

10 derogations have been issued by Contracting Parties for structures to be left in place (5 concrete substructures and the footings of 5 large steel structures). In addition, the Piper Alpha installation was abandoned in-situ following the accident in 1988.

There are currently 59 steel installations weighing more than ten thousand tonnes and 22 gravity-based concrete installations, for which derogations from the dumping ban may yet be considered.

A review of experience and technical developments relating to the decommissioning of platforms was undertaken in 2013 and 2018. The review showed that the number of projects involving concrete structures and substantial steel footings has been very low and there have been no significant developments in the technical capabilities of the industry which would support a reduction in the categories eligible for derogation.

The majority of installations are removed at the time of decommissioning. As older installations reach their end-of-life, it is anticipated that a number of installations will be decommissioned in the coming decade. As a result of the 2018 review, Contracting Parties and Observer organisations agreed to proactively promote areas of research and scientific understanding so as to provide a wider scope for the upcoming review of derogation categories in Annex 1 of Decision 98/3 in 2023.

During 2019-2020, a consultation process under OSPAR Decision 98/3 on the United Kingdom's intention to issue a derogation permit for leaving in-situ the footings of the Brent Alpha Steel Jacket and Brent Bravo, Brent Charlie and Brent Delta gravity-based concrete installations structures was undertaken. A Special Consultative Meeting to discuss the objection raised to the derogation proposal was held in London in October 2019 and in view of the upcoming decommissioning projects, the process was considered as an opportunity in agreeing on common OSPAR-standards for comparable challenging decommissioning cases.



References

OSPAR Inventory of Offshore Installations

OSPAR Decision 98/3 on the Disposal of Disused Offshore Installations, Adopted in Sintra in 1998

OSPAR's Offshore Industry Committee

OSPAR's Offshore Industry Committee meets in Dublin

Special consultative meeting: 18 October 2019

Comparative Evaluation of Decommissioning Options in support of Derogation Proposals meeting: 10 - 11 December 2019

Offshore Industry Committee 2020

Offshore Industry Committee 2021