



# Guidelines to reduce the impact of offshore installations lighting on birds in the OSPAR maritime area

(OSPAR Agreement 2015-08)

(source: OIC 15/15/1, Annex 5)

## 1. Introduction

1. Under Article 2(1) of the Convention for the Protection of the Marine Environment of the North East Atlantic (OSPAR Convention), Contracting Parties have the duty to take the necessary measures to protect the OSPAR maritime area against the adverse effects of human activities so as to safeguard human health and to conserve marine ecosystems and, when practicable, restore marine areas which have been adversely affected. In fulfilling this obligation, under Annex V, Article 2(a) of the OSPAR Convention, Contracting Parties have the duty to take the necessary measures to protect and conserve the ecosystems and the biological diversity of the OSPAR maritime area. In doing so, as prescribed in Article 2(2) of the OSPAR Convention, Contracting Parties will apply the precautionary principle.

2. Migratory birds<sup>1</sup> and seabirds<sup>2</sup> are part of the biodiversity in the OSPAR maritime area and many species of migratory birds and seabirds are protected by various national, European and international laws and Conventions.

3. A significant number of birds of different species migrate across OSPAR Region II (Greater North Sea) at least twice a year or use the Greater North Sea as a feeding and resting area. The migratory behavior is an essential part of the birds' natural life cycle. Some species crossing or using the area may become attracted to offshore light sources, especially in deteriorating weather conditions which result in restricted visibility (e.g. low clouds, mist, drizzle). This attraction can be fatal and may involve large numbers of individuals of many species of birds. OSPAR Region II contains a substantial number of illuminated offshore installations and the attraction can potentially result in mortality.

4. As noted in the report of the 2012 OSPAR Workshop on research into possible effects of offshore platform lighting on specific bird populations (2012 OSPAR Workshop[1]), there is evidence that conventional lighting of some offshore installations has had an impact on a large number of birds. Evidence is, however, not sufficient to conclude whether or not there is a significant effect at a population level (E. van der Zee, 2014) [2].

5. It is unlikely that sufficient evidence will become available in the near future to clearly demonstrate whether or not any species-specific impacts of conventional lighting of offshore installations are significant at the population level. However, under the precautionary principle, limitations in the knowledge of the significance of impacts at the population level should not be a reason for not taking action using BAT to avoid or minimise impacts of conventional lighting on birds crossing or using the Greater North Sea.

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<sup>1</sup> *Migratory birds: Terrestrial and aquatic species including passerines, waders and raptors, which typically encounter offshore installations only during migration.*

<sup>2</sup> *Seabirds: Those species that spend most of their lives at sea*

## **2. Guideline Scope**

6. These guidelines provide advice for OSPAR Contracting Parties considering the course of action to take to address the potential impact of conventional lighting of offshore installations on birds.

7. The guidelines are not intended to be prescriptive. This document offers guidance based on discussions at the 2012 OSPAR Workshop aimed at reducing potential lighting impacts on migrating birds and seabirds.

8. The guidelines apply to both existing and new offshore installations. Whether a proposal is more practicable on existing or new offshore structures will need to be determined on a case by case basis, and all proposals will need to take account of compliance with national and international regulations on aviation and shipping. Furthermore, proposals must not compromise safe working practices for personnel and processes. On new installations, potential mitigation measures should be considered as part of the design process.

9. For further reading, references to various national guidance documents and other sources of information are provided in section 5. They illustrate how the guidelines have been implemented at national levels.

## **3. Guideline Proposals**

### **3.1 Assessment of light sources**

10. All lighting equipment on offshore installations potentially emitting light outside the physical boundary of an installation should be assessed to determine whether the light is essential for safety reasons and whether there is the potential for reducing external emissions. As part of this process, photographs taken in the dark from outside the offshore installations can be used to detect significant light sources emitting light to the surrounding environment.

### **3.2 Reduction of light emissions**

11. The lighting on offshore installations should be reduced to a minimum compatible with safe operations whenever and wherever possible[3], [4]. This includes minimizing the number of lights and the intensity of the lights and/or adapting the spectrum of the lights to bird-friendly lighting systems.

12. Unnecessary light sources should be removed, as far as possible.

13. In areas where lighting is not a continuous requirement, light sources should be automatically or manually controlled through the process control system. Normally unmanned platforms should have switches installed and during unmanned periods lights should be switched off apart from lighting requirement to comply with national and international regulations on aviation and shipping navigation.

14. Where the use of automatic or manual light controls is impractical, the installation of light barriers (shielding) should be considered. This could be used, for example, in areas external to living quarters in order to ensure that adequate lighting is available on external steps but there are limited emissions outside the structure.

### **3.3 Optimum alignment and light shields**

15. Light sources should, if possible and consistent with safe working practices, be positioned in places where emissions to the surrounding environment can be minimized. Additional shielding should also be installed, where practicable[3], [4].

### **3.4 Encasing the drilling tower**

16. Where practicable and consistent with safe working practices, encasing open drilling towers should be considered as a possible option to reduce light emissions.

#### 4. Guideline Evaluation

17. These non-prescriptive guidelines should be evaluated in 2018 in the light of practical experience and any relevant information obtained by Contracting Parties.

#### 5. References

1. *Report of the OSPAR Workshop on research into possible effects of regular platform lighting on specific bird populations.* 2012. (OSPAR 2012/568).
2. E. van der Zee, L.W Bruinzel *Systematic data collection on the effects of platform illumination on migratory birds. A&W rapport nr 1987, Altenburg & Wynmenga ecologisch onderzoek, Feanwâlden 2014 (OIC 14/10/2)*
3. Miles, W., et al., *Effects of artificial lights and moonlight on petrels at St Kilda.* Bird Study, 2010. 57(2): p. 244-251. <http://www.tandfonline.com/doi/pdf/10.1080/00063651003605064>
4. Reed, J.R., J.L. Sincock, and J.P. Hailman, *Light attraction in endangered procellariiform birds: reduction by shielding upward radiation.* The Auk, 1985: p. 377-383. <https://sora.unm.edu/sites/default/files/journals/auk/v102n02/p0377-p0383.pdf>