

Hornsea Project Three
Offshore Wind Farm



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Statutory Nuisance Statement
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Offshore Wind Farm

Orsted

Additional Application Information

Statutory Nuisance Statement

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This report is also downloadable from the Hornsea Project Three offshore wind farm website at:
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Glossary

Term	Definition
Code of Construction Practice (CoCP) ^a	A document detailing the overarching principles of construction, contractor protocols, construction-related environmental management measures, pollution prevention measures, the selection of appropriate construction techniques and monitoring processes with three sections covering the offshore, intertidal and onshore environments.
Development Consent Order (DCO) as made	An order made under the Planning Act 2008 granting development consent for one or more Nationally Significant Infrastructure Projects (NSIP).
Draft Development Consent Order (DCO) as submitted with the application	A draft order made under the Planning Act 2008 granting development consent for one or more Nationally Significant Infrastructure Projects (NSIP) as submitted with the application.
Environmental Impact Assessment (EIA)	A statutory process by which certain planned projects must be assessed before a formal decision to proceed can be made. It involves the collection and consideration of environmental information, which fulfils the assessment requirements of the EIA Directive and EIA Regulations, including the publication of an Environmental Impact Assessment (EIA) Report.
EIA Directive	European Union Directive 85/337/EEC, as amended by Directives 97/11/EC, 2003/35/EC and 2009/31/EC and then codified by Directive 2011/92/EU of 13 December 2011 (as amended in 2014 by Directive 2014/52/EU).
EIA Regulations	The Infrastructure Planning (Environmental Impact Assessment) Regulations 2009.
Hornsea Project Three offshore wind farm	The third offshore wind farm project within the former Hornsea Zone. It includes offshore and onshore infrastructure to connect to the existing National Grid substation located at Norwich Main, Norfolk. Referred to as Hornsea Three throughout this document.
Impact	Change that is caused by an action; for example, land clearing (action) during construction which results in habitat loss (impact).
Nationally Significant Infrastructure Project (NSIP)	Large scale development including power generating stations which requires development consent under the Planning Act 2008. An offshore wind farm project with a capacity of more than 100 MW constitutes an NSIP.
Norwich Main National Grid Substation	The existing National Grid Norwich Main substation which Hornsea Project Three will ultimately connect to.
Orsted Hornsea Project Three (UK) Ltd	The company promoting the development of the Hornsea Project Three offshore wind farm. Orsted Hornsea Project Three (UK) Ltd which is owned by Orsted Power (UK) Limited, which is owned by Ørsted Vind A/S, which is owned by Ørsted VE A/S, which is owned by Ørsted Wind Power A/S, which is owned by Ørsted Wind Power Holding A/S, and which is owned by Ørsted A/S.
Planning Act 2008	The key legislation providing for national policy guidance to assist in the delivery of Nationally Significant Infrastructure Projects (NSIPs). The 2008 Act led to the development of National Policy Statements (NPSs) to guide the decision making processes for NSIPs.
Receptor	A component of the natural or man-made environment that is affected by an impact, including people.

Term	Definition
Significance	The significance of an effect combines the evaluation of the magnitude of an impact and the sensitivity of the receptor.
a	Note documents at the time of application will be outline only, meaning further details will be added between application and construction.

Acronyms

Acronym	Description
CoCP	Code of Construction Practice
CoW	Clerk of Works
DCO	Development Consent Order
DMMP	Dust Management and Monitoring Plan
EIA	Environmental Impact Assessment
EHO	Environmental Health Officer
EPA	Environmental Protection Act 1990
HVAC	High Voltage Alternating Current
HVDC	High Voltage Direct Current
IAQM	Institute of Air Quality Management
NMP	Noise Management Plan

Units

Unit	Description
dB	Decibels
GW	Gigawatt (power)

1. Introduction

1.1 The development

- 1.1.1.1 This Statutory Nuisance Statement is provided by Orsted Hornsea Project Three (UK) Ltd. on behalf of Orsted Power (UK) Ltd., in relation to the Hornsea Project Three Offshore Wind Farm (hereafter referred to as 'Hornsea Three'). It forms part of a suite of application documents and should be read alongside the other documents. This statement refers to the following documents in particular, a draft Development Consent Order (DCO) (A3.1), an Environmental Statement (A6) and an Outline Code of Construction Practice (CoCP) (A8.5).
- 1.1.1.2 Hornsea Three is a proposed offshore wind farm located in the southern North Sea. Hornsea Three is a project that will consist of an offshore generating station(s) with a capacity of greater than 100 MW and therefore is a Nationally Significant Infrastructure Project (NSIP), as defined by Section 15(3) of the Planning Act 2008, as amended. As such, there is a requirement to submit an application for a DCO to the Planning Inspectorate (PINS) to be decided by the Secretary of State for Business, Energy and Industrial Strategy.
- 1.1.1.3 Hornsea Three will comprise of turbines and all infrastructure required to transmit the power generated by the turbines to the existing Norwich Main National Grid substation, which is located south of Norwich. It will also comprise of offshore infrastructure required to operate and maintain the wind farm. The onshore infrastructure will include onshore export cables buried in up to six trenches. It may also include an onshore HVAC booster station and it will include an onshore HVDC converter/HVAC substation, depending on the transmission system, to allow the power to be transferred to the National Grid via the existing Norwich Main National Grid substation.
- 1.1.1.4 Further details of the project is provided in the Environmental Statement, volume 1, chapter 3: Project Description (A6.1.3) that accompanies this application for Development Consent.

1.2 The purpose of this document

- 1.2.1.1 Regulation 5(2)(f) of the Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009 states that any application for an order granting development consent should be accompanied by a statement setting out whether the proposal could cause a statutory nuisance, as defined in the Environmental Protection Act 1990 (EPA). If such a nuisance could occur, the statement must set out how the applicant proposes to mitigate or limit the effects. Therefore this document identifies the matters set out in Section 79(1) of the EPA in respect of statutory nuisance and demonstrates that with the proposed mitigation in place, it is not expected that there would be a breach of Section 79(1) of the EPA during construction, operation and maintenance or decommissioning activities.

- 1.2.1.2 Whilst it is not expected that the construction or operation and maintenance or decommissioning of Hornsea Three would cause a statutory nuisance (as set out in the following sections), the draft DCO accompanying the application contains a provision that would provide a defence to proceedings for statutory nuisance should they be initiated against Orsted Hornsea Project Three (UK) Ltd. or any future operators of the development.
- 1.2.1.3 The Environmental Statement which forms part of the DCO application addresses the likelihood of significant effects arising from matters which could constitute a statutory nuisance, and where any matters may potentially arise, sets out proposals for mitigation. Therefore, although the statutory test in the EIA Regulations (finding of significance) is different to the statutory nuisance test in the EPA (outlined in 2.2.1.3); a summary of the findings of the Environmental Statement for those matters which could constitute a statutory nuisance are reported where relevant within this Statutory Nuisance Statement.

2. Legislative Framework

2.1 Statutory context

- 2.1.1.1 Section 79(1) of the Environmental Protection Act (EPA) identifies the matters which are considered to be a statutory nuisance. To justify the inclusion of a provision within the DCO which provides a defence against claims of statutory nuisance, a statement must be produced which considers what may give rise to nuisance in the absence of mitigation measures implemented in the construction, or operation and maintenance, or decommissioning of the development.
- 2.1.1.2 Section 79(1) of the EPA (as it applies in England) provides that the following matters constitute statutory nuisances:
- (a) any premises in such a state as to be prejudicial to health or a nuisance;
 - (b) smoke emitted from premises so as to be prejudicial to health or a nuisance;
 - (c) fumes or gases emitted from premises so as to be prejudicial to health or a nuisance;
 - (d) any dust, steam, smell or other effluvia arising on industrial, trade or business premises and being prejudicial to health or a nuisance;
 - (e) any accumulation or deposit which is prejudicial to health or a nuisance;
 - (f) any animal kept in such a place or manner as to be prejudicial to health or a nuisance;
 - (fa) any insects emanating from relevant industrial, trade or business premises and being prejudicial to health or a nuisance;
 - (fb) artificial light emitted from premises so as to be prejudicial to health or a nuisance;
 - (g) noise emitted from premises so as to be prejudicial to health or a nuisance;
 - (ga) noise that is prejudicial to health or a nuisance and is emitted from or caused by a vehicle, machinery or equipment in a street; and
 - (h) any other matter declared by any enactment to be a statutory nuisance.
- 2.1.1.3 As set out above, paragraph (h) of Section 79(1) incorporates any statutory nuisances contained in other legislation. No such legislation is relevant to Hornsea Three.
- 2.1.1.4 Section 79 contains other exceptions and definitions in respect of statutory nuisance. The particular exceptions of relevance to the proposals and as such are not engaged in relation to the proposals are:
- Subsection 79(1)(c) (fumes or gases emitted from premises) does not apply in relation to premises other than private dwellings (s.79(4)); and
 - Subsection (1)(ga) above does not apply to noise made...by traffic (s.79(6A)(a)).

2.1.1.5 Definitions are set out in section 79(7), and include the following relevant terms:

- “Dust” does not include dust emitted from a chimney as an ingredient of smoke;
- “Fumes” means any airborne solid matter smaller than dust;
- “Gas” includes vapour and moisture precipitated from vapour;
- “Industrial, trade or business premises” means premises used for any industrial, trade or business purposes or premises not so used on which matter is burnt in connection with any industrial, trade or business process, and premises are used for industrial purposes where they are used for the purposes of any treatment or process as well as where they are used for the purposes of manufacturing;
- “Noise” includes vibration;
- “Prejudicial to health” means injurious, or likely to cause injury, to health;
- “Premises” includes land and ...any vessel”;
- “Private dwelling” means any building, or part of a building, used or intended to be used, as a dwelling;
- “Street” means a highway and any other road, footway, square or court that is for the time being open to the public.

3. Assessment of Statutory Nuisance

3.1 Potential breaches of section 79(1) of the Environmental Protection Act 1990

3.1.1.1 This section considers the types of impacts associated with Hornsea Three that could potentially engage one or more of the matters set out in Section 79(1) of the EPA.

3.1.1.2 The provisions of section 79(1) of EPA that could potentially be engaged are:

(d) Any dust, steam, smell or other effluvia arising on industrial, trade or business premises and being prejudicial to health or a nuisance;

(e) Any accumulation or deposit which is prejudicial to health or a nuisance;

(fba) Artificial light emitted from premises so as to be prejudicial to health or a nuisance;

(g) Noise emitted from premises so as to be prejudicial to health or a nuisance; and

(ga) Noise that is prejudicial to health or a nuisance and is emitted from or caused by a vehicle, machinery or equipment in a street.

3.1.1.3 In the following sections, this statement deals with those matters which could potentially become a statutory nuisance in the absence of mitigation, and then describes the proposed mitigation which relates to these topics.

3.1.2 **Any dust, steam, smell or other effluvia arising on industrial, trade or business premises; any accumulation or deposit**

Construction

3.1.2.1 Volume 3, Chapter 9: Air Quality of the Environmental Statement (A6.3.9) describes the potential impacts and likely effects of dust and other emissions (including construction vehicle emissions) arising as a result of construction of the proposals. It concludes that, with mitigation measures, effects will not be significant in EIA terms. The methodologies for assessing the potential impacts are detailed in Volume 3, Chapter 9: Air Quality of the Environmental Statement (A6.3.9).

3.1.2.2 Mitigation measures in relation to dust and emissions during the construction of Hornsea Three are detailed in both Volume 3, Chapter 9: Air Quality of the Environmental Statement (A6.3.9) and the Outline CoCP (A8.5). Additionally, dust guidance control measures will be implemented where possible from the Institute of Air Quality Management (IAQM) *Guidance on the assessment of dust from demolition and construction* (IAQM, 2014). The objectives of the measures are to minimise the generation of dusts near sensitive receptors during construction and to facilitate a proactive approach to dust management. The measures which Hornsea Three have committed to include:

- Develop and implement a Dust Management and Monitoring Plan (DMMP), approved by the Local Authority to document dust controls and prevention measures;
- Hold regular liaison meetings with other high risk construction sites within 500 m of the site boundary, to ensure plans are co-ordinated and dust is minimised;
- Undertake daily on-site and off-site inspection, where receptors are nearby, to monitor dust to verify effective control of dust;
- Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible;
- Erect solid screens or barriers around dusty activities or the site boundary and fully enclose site or specific operations where there is a high potential for dust production;
- Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used on-site cover;
- Use water sprays to keep barriers, scaffolding and fences clean;
- Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays;
- Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary,
- Any material tracked out of the site; and
- Engage community and display the contact details of person(s) accountable for air quality and dust issues on the site boundary and record complaints to proactively approach potential complaints.

3.1.2.3 With the mitigation measures, as described above and secured through the CoCP (which itself is secured by a DCO requirement), in place, dust and other emissions during construction would be controlled, would not accumulate and would not give rise to any nuisance, nor would they be prejudicial to health under sections 79(1)(d) and 79(1)(e) of the EPA.

Operation and maintenance

3.1.2.4 The operation of Hornsea Three is not expected to generate any discernable air emissions, including dust, during normal operational and occasional maintenance activities. As such, a statutory nuisance will not be caused for 79(1)(d) or 79(1)(e) of the EPA in the operation and maintenance phase because activities which would cause dust, fumes, gases or accumulation prejudicial to health are not anticipated.

Decommissioning

- 3.1.2.5 A decommissioning plan will be submitted to and approved by the Secretary of State for Business, Energy and Industrial Strategy (BEIS), a draft of which would be submitted prior to the construction of Hornsea Three. The decommissioning plan will be updated during Hornsea Three's lifespan to take account of changing best practice and new technologies.
- 3.1.2.6 In practice, impacts from decommissioning are likely to be less than during construction. Therefore, assessing impacts during decommissioning on the same basis as impacts during the construction phase represents worst case. In this regard, it is anticipated that mitigation measures relevant to dust, fumes, gases or accumulation prejudicial to health, will be similar to those identified during the construction phase (where relevant), see section 3.2.1. As such, with mitigation in place, dust and other emissions during decommissioning would be controlled, would not accumulate and would not give rise to any nuisance, nor would they be prejudicial to health under sections 79(1)(d) and 79(1)(e) of the EPA.

3.1.3 Artificial light emitted from premises

Construction

- 3.1.3.1 The majority of construction work in relation to Hornsea Three will be undertaken during daylight hours as described in the Outline CoCP (A8.5). During those working hours there will be no need for artificial lighting of construction areas. Activities outside of the standard working hours will be agreed with the relevant local authority Environmental Health Officer (EHO) in consultation with relevant stakeholders (e.g. third party asset owner) as required. Mitigation measures, designed to avoid or reduce the effects during construction of artificial lighting, are set out within the Outline CoCP (A8.5).
- 3.1.3.2 Measures include that external lighting of the construction site will be designed and positioned to:
- Minimise light spillage or pollution; and
 - Avoid disturbance to adjoining residents and occupiers.
- 3.1.3.3 In this regard, lighting during construction will take into account the requirements set out in British Standard (BS) EB 12464-2:2014 (BSI, 21014) and guidance from the Institute of Lighting Professionals (Institute of Lighting Professionals, 2011 'Guidance Notes for the Reduction of Obtrusive Light').
- 3.1.3.4 As such, the impacts of lighting during construction would not generate a nuisance, nor would it be prejudicial to health under section 79(1)(fb) of the EPA 1990.

Operation and maintenance

- 3.1.3.5 Operational lighting will be designed in accordance with Institute of Lighting Professionals Guidance Notes for the Reduction of Obtrusive Light GN01:2011. Where possible, site lighting will only operate when required and will be directional to avoid unnecessary illumination.
- 3.1.3.6 As such, the impacts of lighting during operation and maintenance would not generate a nuisance, nor would it be prejudicial to health under section 79(1)(fb) of the EPA 1990.

Decommissioning

- 3.1.3.7 In respect to decommissioning, a decommissioning plan will be submitted to and approved by the Secretary of State for BEIS, a draft of which would be submitted prior to the construction of Hornsea Three. The decommissioning plan will be updated during Hornsea Three's lifespan to take account of changing best practice and new technologies.
- 3.1.3.8 In practice, impacts from decommissioning are likely to be less than during construction. Therefore, assessing impacts during decommissioning on the same basis as impacts during the construction phase represents worst case. In this regard, it is anticipated that mitigation measures relevant to artificial light will be similar to those identified for during the construction phase (where relevant), see Section 3.3.1. As such, with mitigation in place, artificial light during decommissioning would not generate a nuisance, nor would it be prejudicial to health under section 79(1)(fb) of the EPA 1990.

**3.1.4 Noise emitted from or caused by a vehicle, machinery or equipment in a street;
Noise emitted from premises and/or from vehicles, machinery and equipment
in a street**

Construction

- 3.1.4.1 Volume 3, Chapter 8: Noise and Vibration of the Environmental Statement (A6.3.8) describes the potential impacts and likely effects of noise arising as a result of construction of the proposals. It concludes that, with mitigation measures, effects will not be significant in EIA terms. The methodologies for assessing the potential impacts are detailed in Volume 3, Chapter 8: Noise and Vibration of the Environmental Statement.

3.1.4.2 Mitigation measures in relation to noise during the construction of Hornsea Three are detailed in Volume 3, Chapter 8: Noise and Vibration of the Environmental Statement (A6.3.8) and the Outline CoCP (A8.5). The objective of the measures are to control and limit noise and vibration levels, so far as is reasonably practicable, to minimise disturbance to sensitive receptors. The measures which Hornsea Three have committed to include:

- Undertake construction works in accordance with the best practicable means (as defined in Section 72 of the Control of Pollution Act 1974), to minimise noise and vibration effects. Noise control measures will be consistent with the recommendations of the current version of BS 5228 'Code of Practice for Noise and Vibration Control on Construction and Open Sites' - Part 1: Noise and Part 2: Vibration' (BS 5228-1:2009+A1:2014 and 2009);
- Engage with EHOs prior to and during construction;
- Inform site personnel about the need to minimise noise, training will include advice relating to the proper use and maintenance of tools and equipment, the positioning of machinery on site to reduce noise emissions to neighbouring residents, and the avoidance of unnecessary noise when carrying out manual operations and when operating plant and equipment;
- Use plant conforming with the relevant legislation relating to noise and vibration;
- Ensure plant machinery is turned off when not in use;
- Ensure no music or radios should be played on site;
- Inform sensitive receptors where localised construction activity may give rise to greater noise levels at nearby properties and the likely period during when the work will take place; and
- Monitor noise mitigation measures by an appointed Clerk of Works (CoW). If non-conformity with the mitigation measures is identified, it will be recorded during a site audit and appropriate remedial actions will be implemented.

3.1.4.3 With the mitigation measures, as described above and secured through the CoCP (which itself is secured by a DCO requirement), in place, noise impacts during construction of the proposals are not expected to generate a nuisance, nor would they be prejudicial to health under section 79(1)(g) or (ga) of the EPA.

Operation and maintenance

3.1.4.4 Volume 3, chapter 8: Noise and Vibration of the Environmental Statement (A6.3.8) describes the potential impacts and likely effects of noise arising as a result of the operational phase of the proposals. It concludes that, with mitigation measures, effects will not be significant in EIA terms. The methodologies for assessing the potential impacts are detailed in Volume 3, Chapter 8: Noise and Vibration of the Environmental Statement (A6.3.8).

- 3.1.4.5 Mitigation measures in relation to noise during the operational phase of Hornsea Three are detailed in volume 3, chapter 8: Noise and Vibration of the Environmental Statement (A6.3.8). The objective of the measures are to control and limit noise levels, so far as is reasonably practicable, to minimise disturbance to sensitive receptors. The measures which Hornsea Three have committed to include the preparation of an operational Noise Management Plan (NMP) for the onshore HVAC booster station and onshore HVDC converter/HVAC substation, to be agreed with the relevant local planning authority, prior to the start of noise generating works.
- 3.1.4.6 Hornsea Three has also committed to developing acoustic mitigation during the detailed design stage for the onshore HVDC converter/HVAC substation. Given the location of the HVAC booster station relevant to the nearest residential receptor, and the commitment of Hornsea Three to internalise the noisiest equipment, similar acoustic mitigation is not required for the HVAC booster station.
- 3.1.4.7 With these mitigation measures in place, noise impacts during the operational phase of Hornsea Three are not expected to generate a nuisance, nor would they be prejudicial to health under section 79(1)(g) or (ga) of the EPA.

Decommissioning

- 3.1.4.8 In respect to decommissioning, a decommissioning plan will be submitted to and approved by the Secretary of State for Business, Energy and Industrial Strategy, a draft of which would be submitted prior to the construction of Hornsea Three. The decommissioning plan will be updated during Hornsea Three's lifespan to take account of changing best practice and new technologies.
- 3.1.4.9 In practice, impacts from decommissioning are likely to be less than during construction. Therefore, assessing impacts during decommissioning on the same basis as impacts during the construction phase represents worst case. In this regard, it is anticipated that mitigation measures relevant to noise will be similar to those identified during the construction phase (where relevant), see Section 3.4.1. As such, with mitigation in place, noise during decommissioning would not generate a nuisance, nor would it be prejudicial to health under section 79(1)(fb) of the EPA 1990.

4. Conclusion

- 4.1.1.1 This Statutory Nuisance Statement identifies the matters set out in Section 79(1) of the Environmental Protection Act 1990 in respect of statutory nuisance and considers whether Hornsea Three could cause a statutory nuisance.
- 4.1.1.2 With the proposed mitigation in place, as described above, it is not expected that there would be a breach of Section 79(1) of the EPA 1990 during construction, operation and maintenance or decommissioning activities associated with Hornsea Three.
- 4.1.1.3 Notwithstanding the above conclusion, the draft DCO that accompanies the application contains a provision that would provide a defence to proceedings for statutory nuisance should they be initiated against the undertaker Orsted Hornsea Project Three (UK) Limited or its successors as undertakers under the terms of the DCO.

5. References

IAQM (2014) Guidance on the assessment of dust from demolition and construction. London, IAQM.