Outer Dowsing Offshore Wind

Outline Documents

8.1.2 Outline Air Quality Management Plan

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1 Contents

Table of Tables

Acronyms & Terminology

Abbreviations / Acronyms

Abbreviation / Acronym	Description
AQMP	Air Quality Management Plan
CoCP	Code of Construction Practice
CTMP	Construction Traffic Management Plan
DCO	Development Consent Order
DPF	Diesel Particulate Filter
HGV	Heavy Goods Vehicle
IAQM	Institute of Air Quality Management
mph	Miles per hour
NRMM	Non-Road Mobile Machinery
NSIP	Nationally Significant Infrastructure Project
ODOW	Outer Dowsing Offshore Wind
PM_{10}	Particulate matter with a diameter of less than 10 micrometres
POWRA	Point of Work Risk Assessment
RAMS	Risk Assessment Method Statement
SMP	Soil Management Plan

Terminology

Term	Definition
Baseline	The status of the environment at the time of assessment without the development in place.
Development Consent Order (DCO)	An order made under the Planning Act 2008 granting development consent for a Nationally Significant Infrastructure Project (NSIP)
Effect	Term used to express the consequence of an impact. The significance of an effect is determined by correlating the magnitude of the impact with the sensitivity of the receptor, in accordance with defined significance criteria.
Haul Road	The track within the onshore ECC which the construction traffic would use to facilitate construction.
Impact	An impact to the receiving environment is defined as any change to its baseline condition, either adverse or beneficial.
Mitigation	Mitigation measures are commitments made by the Project to reduce and/or eliminate the potential for significant effects to arise as a result of the Project. Mitigation measures can be embedded (part of the project design) or secondarily added to reduce impacts in the case of potentially significant effects.
Order Limits	The area subject to the application for development consent, the limits shown on the works plans within which the Project may be carried out.
The Project	Outer Dowsing Offshore Wind, an offshore wind generating station together with associated onshore and offshore infrastructure.
Receptor	A distinct part of the environment on which effects could occur and can be the subject of specific assessments. Examples of receptors include species (or groups) of animals or plants, people (often categorised further such as 'residential' or those using areas for amenity or recreation), watercourses etc.

Reference Documentation

Document Number	Title
6.1.19	Onshore Air Quality
6.3.19.2	Non-Road Mobile Machinery Emissions Assessment
8.1.3	Outline Soil Management Plan
8.15	Outline Construction Traffic Management Plan
8.16	Outline Travel Plan

1 Introduction

1. This Outline Air Quality Management Plan (AQMP), is provided as part of the Outline Code of Construction Practice (CoCP) submitted with the Development Consent Order (DCO) application.
2. The outline AQMP outlines the overarching strategies for managing air quality during the construction of all onshore elements of the Project. It details control measures for construction dust and Non-Road Mobile Machinery (NRMM) emissions, based on the assessment outcomes presented in Chapter 19 Onshore Air Quality (6.1.19).

1.1 Future Commitments

3. Following consent, construction activities along the onshore Export Cable Corridor (ECC) will be divided into sections, with different Principal Contractors appointed based on activity type and expertise. The Outline CoCP and its supporting management plans (including this Outline AQMP) will be developed into Final CoCPs and AQMPs for each transmission section, tailored to specific activities and sensitivities.
4. This is secured within Requirement 18 of the draft DCO, which states:

"(1) No stage of the onshore transmission works may commence until a code of construction practice (which must accord with the outline code of construction practice) for that stage has been submitted to and approved by the relevant planning authority following consultation, as appropriate, with

(a) Lincolnshire County Council;

(b) the Environment Agency;

(c) relevant statutory nature conservation body;

(d) in respect of the surface water drainage strategy referred to in sub-paragraph (2)(b), Anglian Water Services Limited;

(e) if applicable, the MMO; and

(f) if applicable, the Defence Infrastructure Organisation in respect of works comprising Work No. 12 and 13.

(2) The code of construction must include—

(a) an air quality management plan (which accords with the outline air quality management plan);

[…]

(3) Any code of construction practice submitted under sub-paragraph (1) may cover one or more of the stages of the onshore transmission works.

(4) All construction works for each stage must be undertaken in accordance with the relevant approved code of construction practice."

5. To support the Final AQMPs, the control measures for construction dust and NRMM emissions outlined in this Outline AQMP will be refined to reflect the specific requirements of each transmission section.
6. The construction dust assessment, which informs the mitigation measures in Table 2.1, currently considers all onshore elements of the Project. For each Final AQMP, this assessment will be revised to focus on each transmission section. It will be updated to incorporate detailed construction data once the Principal Contractor is appointed, enhancing the accuracy of mitigation strategies. The updated assessment will also consider advancements in techniques and best practices that may emerge before construction begins (expected in 2027). These refinements will define the final suite of controls.
7. NRMM measures in Section 3 are standard best-practice controls that do not rely on site-specific assessments. These measures are expected to remain relevant but will be reviewed when preparing the Final AQMPs with reference to advancements in techniques and best practices.
8. By committing to the Final AQMP as part of the Final CoCP for each transmission section, the strategies can be refined at a more appropriate time once further details become available. Requirement 18 of the draft DCO ensures that the Final AQMP will align with the overarching principles established in this Outline AQMP, providing a clear foundation for future refinements.
9. This approach allows flexibility to incorporate detailed information while establishing the overarching commitments. It is a standard approach for Nationally Significant Infrastructure Projects.

2 Construction Dust Mitigation Measures

10. Following the outcomes of the construction dust assessment presented within Volume 1, Chapter 19: Onshore Air Quality (document reference 6.1.19, version 3), a number of management and mitigation measures in relation to the release of dust and other emissions during construction works have been identified. In line with IAQM guidance the measures are grouped into those which are 'highly recommended' necessary to mitigate the above affects throughout the construction phase, and those which are 'desirable'; to be implemented as required.
11. Table 2.1 Construction Dust Mitigation Measures describes the mitigation measures associated with the Project, required to prevent, avoid, or reduce and mitigate impacts associated with construction dust. These measures derive from the Institute of Air Quality Management (IAQM) guidance but are adapted and refined according to the proposed construction activities, logistics, and feasibility, to make them site-specific. In accordance with the IAQM guidance and assuming the effective application of measures, residual effects associated with construction dust are considered to be **not significant**.

Table 2.1 Construction Dust Mitigation Measures

Application / Activity	Mitigation Measures
Highly Recommended	
Communications	Develop and implement a Stakeholder Communications Plan that includes community engagement before work commences on site.
	Display the name and contact details of person(s) accountable for air quality and dust issues on the Order Limits. This may be the environment manager/engineer or the site manager.
	Display the head or regional office contact information.
	Develop and implement a final AQMP as part of the final CoCP; which includes measures to control other emissions, and will be approved as a requirement of the DCO.
Construction	Avoid scabbling (roughening of concrete surfaces), over excavation, , and on-site batching where possible.
	Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.
	Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery.
	Ensure the correct placement and management of materials, also the suitability of materials for their proposed use i.e. temporary or permanent.

Application / Activity	Mitigation Measures
Earthworks	Cover or seed exposed areas and soil stockpiles (where soil is to be stored for over 6 months) to stabilise surfaces as soon as practicable and prevent fugitive dust emissions.
	Strip soils in sections ensuring placement and management in accordance with a soil management plan. An Outline Soil Management Plan (SMP) (document reference 8.1.3) has been prepared to support the DCO application.
	During earthworks, traffic management methods and measures will be implemented to manage air quality, including those within the Construction Traffic Management Plan (CTMP). This considers vehicle speeds and axle type. An Outline CTMP (document 8.15) has been prepared in support of the DCO application and will be finalised by the appointed Principal Contractor(s).
Monitoring	Undertake daily on-site and off-site inspections where receptors (including roads) are nearby, to monitor dust, record inspection results, and make the log available to the local authority when asked. This should include regular dust soiling checks of surfaces such as street furniture, cars and windowsills within 100m of Order Limits, with cleaning to be provided if necessary. This monitoring should also take account of wind-swept particles from adjacent operations and land, e.g. pollen, to appropriately inform observations and investigations.
	Carry out regular site inspections to monitor compliance with the AQMP measures, record inspection results, and make an inspection log available to the local authority when asked.
	Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.
	Agree dust deposition, dust flux, or real-time particulate matter with a diameter of less than 10 micrometres (PM_{10}) continuous monitoring locations with the Local Authority. Where possible commence baseline monitoring at least three months before work commences on site or, if it is a large site, before work on a phase commences. Further guidance is provided by IAQM on monitoring during demolition, earthworks and construction.
	Conduct dust deposition monitoring at sensitive ecological designations, where relevant. The locations will be agreed in consultation with Natural England.
Operating Vehicle / Machinery and Sustainable Travel	Ensure the correct selection of vehicle and axle type to suit the required works, work area, and terrain.
	Ensure all vehicle operators switch off engines when stationary - no idling vehicles.

Application / Activity	Mitigation Measures
	Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where practicable.
	For all construction vehicles, impose and signpost a maximum-speed-limit of 20mph on haul roads and work areas.
	Adhere to the CTMP to manage potential impacts of construction traffic. An Outline CTMP (document 8.15) has been prepared in support of the DCO application and will be finalised by the appointed Principal Contractor(s).
	Adhere to the Travel Plan that supports and encourages sustainable travel (public transport, cycling, walking, and car-sharing). An Outline Travel Plan (document 8.16) has been prepared in support of the DCO application and will be finalised by the appointed Principal Contractor(s).
Operations	Prior to undertaking any operations, staff will have undertaken the correct training and have been correctly briefed. The site supervisor will undertake a Point of Work Risk Assessment (POWRA) prior to the start of any activity and good practices will be adopted where practicable.
	Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems.
	Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water if possible and appropriate to the land type.
	Use enclosed chutes and conveyors and covered skips.
	Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use water to dampen such equipment wherever appropriate.
	Ensure equipment is readily available on site to clean any dry spillages, and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.
	Minimise the extent of works and the working area wherever practicable to reduce potential impacts from particulates.
Preparing and Maintaining the Site	Plan site layout so that machinery and dust causing activities are located away from receptors, as far as reasonably possible.
	Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any material stockpile on site.
	Enclose site areas or specific operations where practicable and there is a high potential for dust production and/or the site is active for an extensive period.
	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, they will be managed appropriately.
	Cover, or seed stockpiles to prevent wind whipping.
Site Management	Adhere to the management procedures and processes at all times e.g. those set out within the CoCP and Risk Assessment Method Statement (RAMS).

Application / Activity	Mitigation Measures
	Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.
	Make the complaints log available to the Local Authority when asked.
	Record any exceptional incidents that cause dust and/or air emissions, either on- or offsite, and the action taken to resolve the situation in the log book.
	Hold regular liaison meetings with other high risk construction sites and/or land operations (e.g. farming) within 500m of the Order Limits, to ensure plans are co-ordinated and dust and particulate matter emissions are minimised. It is important to understand the interactions of the off-site transport deliveries which might be using the same strategic road network routes.
Trackout/Construction Access Points/ Haul Road Crossings	Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the site. This may require the sweeper being continuously in use.
	Avoid dry sweeping of large areas.
	Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport.
	Inspect construction access points and haul road crossings~~on-site haul roads~~ for integrity and instigate necessary repairs to the surface as soon as reasonably practicable.
	Record all inspections of construction access points and haul road crossings~~haul roads~~ and any subsequent action in a site log book.
	Install hard surfaced construction access points and haul road crossings (as identified in 2.9 Access to Works Plan), ~~haul roads~~, which are regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned.
	Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable).
	Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever site size and layout permits.
	Access gates to be located at least 10m from receptors where possible.
Haul Roads	Avoid dry sweeping of large areas.
	Inspect on-site haul roads for integrity and instigate necessary repairs to the surface as soon as reasonably practicable.
	Record all inspections of haul roads and any subsequent action in a site log book.
	All haul roads are to be regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers, and regularly cleaned.
	In addition to aggregate haul roads, other options such as bog-matting, trackway, geotextiles will also be considered and employed where

Application / Activity	Mitigation Measures
	required. The sensitivity of receptors, including sensitive commercial farmland, will be considered within any assessment.
Waste Management	Avoid bonfires and burning of waste materials. Any burning of waste deemed strictly necessary should be undertaken in accordance with the relevant waste management exemption issued by the Environment Agency, and consideration should be given to the timing of such burning, and the prevailing weather conditions to impact emissions to air and nuisance to offsite receptors.
	Implement working practices that minimise smoke and vapour from chemicals and certain activities e.g. welding.
	Ensure the storage of waste in line with site waste management procedures, to prevent the release of odour and wind-swept materials (e.g. microplastics).
Desirable	
Construction	For smaller supplies of fine power materials ensure bags are sealed after use and stored appropriately to prevent dust.

3 Measures Specific to Non-Road Mobile Machinery (NRMM)

12. In accordance with the NRMM emissions assessment presented in Volume 3, Appendix 19.2: NRMM Emissions Assessment (document reference 6.3.19.2), a number of management and mitigation measures in relation to NRMM emissions have been identified. These include:
    - Plan site layout so that machinery is located away from receptors, as far as is practicable;
    - Ensure all vehicle operators switch off engines when stationary – no idling vehicles. This applies to idle construction equipment, and trucks waiting to access the site and those being loaded/unloaded;
    - NRMM equipment to be properly maintained and regularly checked to support efficient fuel consumption;
    - Avoid the use of diesel or petrol-powered generators and use mains electricity or battery powered equipment where practicable;
    - Adhere to the CTMP to manage potential impacts of construction traffic. Document 8.15 has been prepared in support of the DCO application and will be finalised by the appointed Principal Contractor(s);
    - Where feasible and commercially available, ensure equipment complies with the latest (Stage V) emission standards;
    - Where feasible, ensure further abatement plant is installed on NRMM equipment, e.g. Diesel Particulate Filters (DPFs); and
    - Impose and signpost a maximum-speed-limit of 15mph on haul roads and within work areas.
13. The range of measures identified are in compliance with industry guidance to effectively control NRMM emissions.