

MONA OFFSHORE WIND PROJECT

Outline Dust Management Plan

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Image of an offshore wind farm

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Acronyms

Acronym	Description
CCBC	Conwy County Borough Council
CoCP	Code of Construction Practice
DCC	Denbighshire County Council
MHWS	Mean High Water Springs
MLWS	Mean Low Water Springs

Units

Unit	Description
m	Metres

1 Outline Dust Management Plan

1.1 Introduction

1.1.1 Background

1.1.1.1 This Outline Dust Management Plan is provided as an appendix to the Outline Code of Construction Practice (CoCP) It sets out the key management measures that will be implemented during the construction phase of the Mona Offshore Wind Project.

1.1.1.2 The Outline Dust Management Plan seeks to manage potential impacts that occur from the construction of the onshore and intertidal elements of the Mona Offshore Wind Project. These elements occur landward of Mean Low Water Springs (MLWS) and comprise:

- Landfall
- Onshore Cable Corridor
- Onshore Substation
- 400kV Grid Connection Cable Corridor.

1.1.1.3 In addition to these elements, the Outline Dust Management Plan also considers the temporary construction compounds, storage areas, accesses and mitigation areas required to support the construction of the Mona Offshore Wind Project.

1.1.1.4 The relevant planning authority for the landfall and the western section of the Onshore Cable Corridor (i.e. west of Bodelwyddan) is Conwy County Borough Council (CCBC); the relevant planning authority for the eastern section of the Onshore Cable Corridor, the Onshore Substation and the 400kV Grid Connection Cable Corridor is Denbighshire County Council (DCC).

1.1.2 Purpose of the Outline Dust Management Plan

1.1.2.1 The draft Development Consent Order (DCO) (Document Reference C1) includes a requirement for the preparation of a final CoCP. The final CoCP will be supported by a series of management plans including a Dust Management Plan (as part of the final CoCP), which must be submitted to and approved by the relevant planning authority prior to the commencement of onshore works.

1.1.2.2 The purpose of this Outline Dust Management Plan is to set out the key construction dust control measures that will be required during construction of the onshore and intertidal elements of the Mona Offshore Wind Project.

1.1.2.3 This is an outline document based on the design set out in Volume 1, Chapter 3: Project Description of the Environmental Statement and includes measures that have been identified as part of the EIA process.

1.1.2.4 The Outline Dust Management Plan should be read in conjunction with the Outline CoCP (Document reference J26) and its supporting appendices. Management measures relating to air emissions from construction vehicles are described in the Outline Travel Plan within the Outline Construction Traffic Management Plan (Document reference J26.13).

1.2 Scope of the Outline Dust Management Plan

- 1.2.1.1 The scope of this Outline Dust Management Plan applies to the onshore site preparation works and construction activities of the Mona Offshore Wind Project located landward of MLWS. The Plan does not apply to activities associated with offshore works, (i.e. seaward of MLWS).
- 1.2.1.2 Onshore site preparation works will be undertaken prior to the commencement of construction. These works will be undertaken in line with this Outline Dust Management Plan, which as certified through the DCO.
- 1.2.1.3 The final Dust Management Plan will be in general accordance with the principles established in the Outline Dust Management Plan and will be agreed with the relevant authority prior to commencing construction of the relevant stage of the onshore and intertidal works (above MLWS). For the purpose of this Plan, the term 'construction' includes all related engineering, construction and restoration activities as authorised by the DCO within the Order Limits.

1.3 Roles and responsibilities

1.3.1 Overview

- 1.3.1.1 The key roles and associated responsibilities with regard to this Outline Dust Management Plan are set out below. The Construction (Design and Management) Regulations 2015 also identify the legal duties, responsibilities and obligations of all the major roles within the construction team.
- 1.3.1.2 The responsibilities of each role will be refined as necessary in the final Dust Management Plan.

Applicant

- 1.3.1.3 The Applicant will be responsible for the following:
- Ensuring that the Dust Management Plan is implemented effectively
 - Giving necessary direction to contractors (for example, setting contractual obligations)
 - Reviewing, revising and refining the Dust Management Plan (where necessary) in conjunction with the Principal Contractor.

Principal Contractor

- 1.3.1.4 The Principal Contractor will be appointed by the Applicant and has the overall responsibility for:
- Updating and delivering the final Dust Management Plan on behalf of the Applicant
 - Ensuring all procedures in the Dust Management Plan are followed
 - Ensuring all contractors are suitably qualified and experienced in implementing the measures within the Dust Management Plan
 - Maintaining records relevant to the Dust Management Plan.

Contractors/Sub contractors

1.3.1.5 Contractors and sub-contractors will be required to understand their responsibilities and implement the measures within the Dust Management Plan (e.g. task-based lighting will be switched off after use and at the end of the working shift).

1.3.2 Training and competence

1.3.2.1 All construction staff will receive training as part of the site induction on the importance of managing dust from the construction works areas. Training will include the control measures within the Dust Management Plan and the reporting procedures for dust incidents. Specific training (e.g. toolbox talks) will be given for those staff involved in dust-generating construction activities and for those staff undertaking dust monitoring. All staff will be made aware of any changes to the Dust Management Plan.

1.3.2.2 Staff responsible for the operation, maintenance or repair of dust suppression systems will be trained and competent (as documented using training records).

1.3.2.3 Any sub-contractors working on site will be made aware of the Outline Dust Management Plan and will be expected to comply with it at all times.

1.3.2.4 A list of approved repair contractors will be kept in the site office and relevant site operatives will be made aware of the existence and the location of the list. Where appropriate, essential spare parts will be kept on site.

1.4 Process description

1.4.1.1 The following types of activities during construction of the Mona Offshore Wind Project could result in fugitive dust emissions:

- Earthworks
- Handling and disposal of spoil
- Wind-blown particulate material from stockpiles
- Handling of loose construction materials
- Movement of vehicles, both on and off site (trackout).

1.4.1.2 The level and distribution of construction dust emissions will vary according to factors, such as the type of dust, duration and location of dust-generating activity, weather conditions and the effectiveness of dust suppression methods.

1.4.1.3 The main effect of any dust emissions, if not mitigated, could be annoyance due to soiling of surfaces, particularly windows, cars and laundry. However, it is normally possible, following the implementation of proper control and good practice methods (i.e. the methods described in this plan), to ensure that dust deposition does not give rise to significant adverse effects, although short-term events may occur (e.g. due to technical failure or exceptional weather conditions).

1.5 Sensitive receptors where impacts could occur

1.5.1.1 The locations of sensitive receptors where impacts could occur are identified in Volume 3, Chapter 10: Air Quality of the Environmental Statement and includes all receptors within 350 m of the construction activities.

1.6 Routine construction phase mitigation measures

1.6.1 Overview

1.6.1.1 The mitigation measures outlined in this document are based on the highly recommended measures for sites with medium dust risk as detailed in the Institute of Air Quality Management (IAQM) guidance on the assessment of dust from demolition and construction (IAQM 2023).

1.6.1.2 Site-specific mitigation measures are divided into the following general measures applicable to all sites, measures specific to earthworks, construction and the movement of dust and dirt from a construction site onto the public road network (referred to as trackout).

1.6.2 Preparing and maintaining the site

1.6.2.1 The following site preparation and maintenance measures will be adhered to throughout the construction phase:

- Plan site layout (layout of the works taking place on site) so that machinery and dust causing activities are located away from receptors, as far as is possible
- Solid screens or barriers should be erected around dust activities and fully enclose where there is high potential for the production of dust
- Keep site fencing, barriers and scaffolding clean using wet methods
- 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 as described below
- Where soil is to be stored for over 6 months, it will be covered to minimise erosion or allowed to re-vegetate naturally
- Cover, seed or fence stockpiles to prevent wind whipping where practicable. Seeding of topsoil and subsoil bunds. Avoid site runoff of water or mud.

1.6.3 Site Management

1.6.3.1 The following site management measures will be adhered to throughout the construction phase:

- 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
- Record any exceptional incidents that cause dust and/or air emissions, either on- or off-site and the action taken to resolve the situation in the log book
- Make the complaints log available to CCBC and DCC when asked.
- 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 and particulate matter emissions are minimised. This will include understanding the interactions of the off-site transport/deliveries which may use the same strategic road network routes.

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1.6.4 Communications

1.6.4.1 The following communications measures will be adhered to throughout the construction phase:

- Display the Project Hotline number on the site boundary.
- Display the Public Liaison Officer contact information on the site boundary
- Display the head or regional office contact information.
- Communications with local stakeholders will be undertaken prior to and during construction work commences as outlined in the Outline Communications Plan (Document reference J26.4) and contact details will be displayed on the site boundary for reporting air quality and dust issues.

1.6.5 Monitoring

1.6.5.1 The following monitoring measures will be adhered to throughout the construction phase:

- Undertake daily on-site and off-site inspection, 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 window sills within 100 m of site boundary, with cleaning to be provided if necessary
- Carry out regular site inspections to monitor compliance with the Dust Management Plan, record inspection results and make an inspection log available to CCBC and DCC 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 PM₁₀ continuous monitoring locations with CCBC and DCC.

1.6.6 Operations (Construction Phase)

1.6.6.1 The following operations measures will be adhered to throughout the construction phase:

- 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
- Use enclosed chutes and conveyors and covered skips
- Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate
- Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and 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

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- Ensure that enclosed chutes and conveyors and covered skips are used during the construction phase.

1.6.7 Waste management

1.6.7.1 The following waste management measures will be adhered to throughout the construction phase:

- No bonfires or burning of waste material.

1.6.8 Operating vehicle/machinery and sustainable travel

1.6.8.1 The following measures will be adopting regarding operating machinery and travel:

- Ensure all vehicles switch off engines when stationary - no idling vehicles
- Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where practicable
- Ensure the vehicle fleet for construction activities are of low emission category where possible
- Produce a construction logistics plan to manage the sustainable delivery of goods and materials
- Impose and signpost a maximum-speed-limit of 15 mph on surfaced and 10 mph on unsurfaced haul roads and work areas (if long haul routes are required these speeds may be increased with suitable additional control measures provided, in accordance with the Construction Method Statement)
- Implement a travel plan that supports and encourages sustainable travel.

1.6.9 Measures specific to construction

1.6.9.1 Measures that will be implemented that are specific to construction are the following:

- Avoid scabbling (roughening of concrete surfaces) if 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. For smaller supplies of fine powder materials ensure bags are sealed after use and stored appropriately to prevent dust.

1.6.10 Measures specific to trackout

1.6.10.1 Measures that will be implemented that are specific to trackout are the following:

- 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

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- Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport
- Inspect on-site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable
- Record all inspections of haul routes and any subsequent action in a site log book
- Haul routes to be 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 10 m from residential properties/schools and healthcare facilities where possible.

1.7 Decommissioning phase mitigation

- 1.7.1.1 Prior to the commencement of the decommissioning phase, a decommissioning plan will be submitted to CCBC and DCC and applied where necessary.
- 1.7.1.2 The most probable measures that will be undertaken to mitigate air quality and dust issues are the same as during the construction phase.

1.8 Additional mitigation/control measures

- 1.8.1.1 Trigger levels have been defined to reduce nuisance dust effects at the nearest receptors during high-risk conditions.
- 1.8.1.2 The trigger levels established for the site include any of the following occurring, singly or in combination:
- Winds that are or are forecast to be, above a moderate breeze (Beaufort scale 4 – described as conditions under which dust and loose paper are raised, small branches begin to move) on days when there has been no rainfall for the last three days or more
 - Routine checks/inspections/surveys on site have identified evidence of dust off-site
 - A dust complaint is received
 - A failure in equipment or control is identified or an abnormal/unintentional situation occurs, e.g. a spillage.
- 1.8.1.3 The additional controls to be employed if a trigger level is exceeded are set out below:
- Increase frequency of use of the road sweeper, both on-site and on local roads
 - Temporary cessation of the activities responsible for causing the dust impact until the trigger level is no longer exceeded
 - Use of additional dust suppression measures such as dampening of specific surfaces
 - Relocation of activities so that the distance between the source of emissions and the receptors is increased.

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1.8.1.4 The additional control measures listed in paragraph 1.8.1.3 will be implemented (either singly or in combination) as necessary to effectively control dust emissions, as evidenced by the visual and monitoring checks described in the section 1.9.

1.8.1.5 The site manager will be responsible for implementing these risk management measures in accordance with procedures.

1.9 Procedures to check the dust controls/mitigation are effective

1.9.1 Monitoring

1.9.1.1 The results of the inspections will be recorded in a site log. The prevailing weather conditions and the activities undertaken at the time of the inspection will also be recorded in the site log.

1.9.1.2 If any of the trigger levels in section 1.8 are exceeded and additional measures are employed, the frequency of the visual site boundary inspection will increase to twice a day until such time as no dust is visible leaving the construction works area boundary. If after two days, the results of such monitoring indicate that the additional control measures are not effective, the site manager will instruct all site operatives that the operations will cease until the issue can be resolved.

1.9.1.3 An example daily dust inspection sheet has been provide in Table 1.1.

Table 1.1: Daily dust inspection sheet

Dust Inspections sheet			Date		
Time of test					
Location of test e.g. street name etc					
Weather conditions (dry, rain, fog, snow etc):					
Temperature (very warm, warm, mild, cold or degrees if known)					
Wind strength (none, light, steady, strong, gusting) Use Beaufort scale if known					
Wind direction (e.g. from NE)					
Duration (of test)					
Constant or intermittent in this period or persistence					
Receptor sensitivity (see below)					
Is the source evident?					

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Dust Inspections sheet			Date		
Any other comments or observations					

1.9.2 Monitoring dust complaints

1.9.2.1 Complaints received during the construction process will be recorded in accordance with the principles in section 1.10. Complaints are an important indicator of community dissatisfaction and provide a useful form of monitoring. However, it is important to bear in mind that complaints are only a symptom of annoyance or nuisance; there are various reasons why complaint records are not an exact indicator of dust annoyance or nuisance itself. Nevertheless, the collection, maintenance and analysis of complaints records is an important method of indicating the effectiveness or otherwise of measures implemented to reduce nuisance due to dust.

1.9.2.2 The site manager will implement a system of complaints monitoring and analysis. Complaints will be collected, registered and validated as described in section 1.10 of the Dust Management Plan. The record of complaints received at the end of each calendar quarter will be reviewed to identify:

- Trends, in terms of the subject, cause or origin of complaints
- Aspects experienced at one location that could apply to other locations.

1.9.2.3 Any action deemed necessary because of the analysis shall be identified and discussed in order to programme a course of corrective actions.

1.10 Complaints action procedure

1.10.1 Receipt of a complaint

1.10.1.1 If any complaint is made by a member of the public about any matter associated with the construction works area, the site manager/responsible person will give notice in writing to CCBC or DCC no later than the next working day after the complaint is received. This written notification will normally be in the form of an email. The notification will include a description of the complaint, the name and address of the person making the complaint (if available) and the action proposed as a result. Depending on the nature of the complaint, it will not always be possible to resolve the matter within this short timescale. In such cases an indication will be given that further investigations are necessary.

1.10.1.2 Once a complaint has been received, the complaint details will be registered.

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1.10.2 Complaint registration

- 1.10.2.1 A record of all complaints received will be maintained. In the event that a complaint is received alleging potential dust nuisance from the construction site:
- The complaint will be fed into a registration system
 - Complaints data should be recorded in a systematic way, enabling comparison with standard dust descriptors, with wind direction and with site work activities.
- 1.10.2.2 A standardised form will be used for recording this information and entering it into the registration system, shown in Table 1.2.

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Table 1.2: Form for the recording of dust-related complaint

Dust Complaint Report Form		Sheet No	
Date:		Time:	
Name and address of complaint:			
Tel no. of complaint:			
Time and date of complaint:			
Date, time and duration of offending dust:			
Location of dust, if not at above address:			
Weather conditions (i.e., dry, rain, fog, snow):			
Wind strength (light, steady, strong, gusting) or use Beaufort scale:			
Wind direction:			
Complainant's description of dust (e.g. colour, particle size):			
Has complaint any other comments about the dust?			
Are there any other complaints relating to the installation or to that location? (either previously or relating to the same exposure)			
Any other relevant information:			
On-site activities at time the dust occurred:			
Operating condition at time nuisance dust occurred/identified.			
Actions taken:			
Form completed by		Signed	

1.10.3 Responding to a complaint

- 1.10.3.1 For answerphone messages and complaints submitted by email or by letter, an acknowledgement and initial response will be given by telephone or by email within 48 hours, provided that telephone or email contact details have been given by the complainant. The site manager will respond as rapidly as possible to the complaint to maximize the opportunity for identifying the source of the nuisance dust. Where possible, the site manager or an appropriate representative of the site manager, will inspect the nuisance dust location referred to in the complaint.
- 1.10.3.2 Where complaints cannot be resolved on initial contact and further investigations are required, a written response will be made within 10 working days of submission of the complaint. The complaint will be told if this is the case and how long it will take to give a response.
- 1.10.3.3 The primary reasons for further investigation of complaints are to assess potential nuisance and identify the likely cause and source of the dust so that nuisance can be reduced or stopped. In the case of further investigations, the site manager will communicate to the complainant the course of actions likely to be taken. In summary, the response will include:
- The reason for the nuisance dust event
 - The likely duration of the nuisance dust event
 - What plan is in place to end the nuisance dust event
 - What preventative plan will be implemented to prevent a re-occurrence
 - What grievance procedure the aggrieved party can take.

1.10.4 Investigation of dust complaints

- 1.10.4.1 The site manager will investigate the complaint and will provide a response. The response will be by letter or email or, if preferred, a telephone call.
- 1.10.4.2 The investigation will aim to capture evidence to establish whether the nuisance dust identified is attributable to the construction activities. If the source of the nuisance dust is deemed to be the construction activities, the information recorded will be used to identify if there has been a failure in the existing mitigation/control measures or the need for a new mitigation/control measure. If a new mitigation/control measure is required, the site manager will update the Dust Management Plan.

1.11 References

IAQM (2023) Guidance on the assessment of dust from demolition and construction. Available at: <https://iaqm.co.uk/guidance/>. Accessed: October 2023.