



Environmental Impact Assessment Report (EIAR)

Volume 6 of 6: Appendices

(Appendix A12.1) Dust Mitigation Measures

Document no: 32105801/EIARA12.1

Version: Final

December 2025

PAGE LEFT INTENTIONALLY BLANK

Contents

1. Dust Mitigation Measures	1
1.1 Introduction.....	1
1.2 Communications	1
1.3 Site Management	1
1.4 Monitoring.....	2
1.5 Demolition	2
1.6 Preparing and Maintaining the Site.....	3
1.7 Operating Vehicles and Machinery, and Sustainable Travel	3
1.8 Operations.....	4
1.9 Waste Management	4
1.10 Measures Specific to Earthworks.....	4
1.11 Measures Specific to Construction.....	5
1.12 Measures Specific to Trackout.....	5
1.13 Measures Specific to Construction Compounds	6

Acronyms and Abbreviations

Acronym	Meaning
DMP	Dust Management Plan
kph	Kilometres per hour
IAQM	Institute of Air Quality Management
NO ₂	Nitrogen Dioxide
PM ₁₀	Particular matter of an aerodynamic diameter of equal or less than 10 micrometres
PM _{2.5}	Particular matter of an aerodynamic diameter of equal or less than 2.5 micrometres

1. Dust Mitigation Measures

1.1 Introduction

1. The full list of recommended dust mitigation measures for high risk sites are detailed below as per the Institute of Air Quality Management (IAQM) Guidance on the Assessment of Dust from Demolition and Construction (IAQM 2024). The appointed Contractor(s) will prepare Site Specific Dust Management Plans (DMPs) which will deal specifically with onsite activities to remove or reduce dust emissions associated with the construction works. The Site Specific DMPs will specify the dust monitoring requirements and reporting that will be carried out so that all potential sensitive receptors are included in the monitoring programme and will be based on the DMP in Annex E of Appendix A5.1 (Construction Environmental Management Plan) as a minimum. The DMP will be reviewed at regular intervals during the Construction Phase to monitor the procedures in place and to maintain the goal of reducing dust, as far as practicable, through the use of good practice mitigation measures. The following sections detail the applicable measures for various activities.

1.2 Communications

- Develop and implement a stakeholder communications plan that includes community engagement before work commences on site
- Display the name and contact details of the person accountable for air quality and dust issues on the site boundary
- Display the head or regional office contact information
- Develop and implement Site Specific DMPs, which may include measures to control other emissions, approved by the local authority. The level of detail will depend on the risk and will include as a minimum the recommended measures in this document. The Site Specific DMPs will include monitoring of dust deposition, dust flux, real-time PM₁₀ continuous monitoring and/or visual inspections, where appropriate.

1.3 Site Management

- Regular inspections of the site and boundary will be carried out to monitor dust. Records and notes on these inspections will be logged
- 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-site or off-site, and the action taken to resolve the situation in the log book
- Plan site layout. Machinery and dust causing activities will be located away from receptors where feasible
- Site access points have been designed to reduce queuing traffic adjacent to access and egress points as far as practicable
- Erect solid screens or barriers around dust activities or the site boundary that are, at least, as high as any stockpiles on site
- Stockpiles and mounds will be kept away from sensitive receptors, watercourses and surface drains, and sited to take into account the predominant wind direction relative to sensitive receptors, where reasonably practicable
- Fully enclose the site or specific operations where there is a high potential for dust production and the site is active for an extensive period
- Avoid site runoff of water or mud

- The number of handling operations for materials will be kept as low as reasonably practicable
- Keep site fencing, barriers and scaffolding clean using wet methods
- Remove materials from site as soon as feasible
- Cover, seed or fence stockpiles to prevent wind whipping
- Carry out regular dust soiling checks of buildings within 100m of the site boundary and cleaning to be provided if necessary
- Provide showers and enforce a change of shoes and clothes for site staff before going off-site to reduce transport of dust
- Where feasible, commence baseline monitoring at least three months before the Construction Phase or site specific activities begin
- Put in place real-time dust and air quality pollutant monitors across the site in locations chosen after consultation with local authorities and check these regularly.

1.4 Monitoring

- 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 will include regular dust soiling checks of surfaces such as street furniture, cars and window sills within 100m of site boundary, with cleaning to be provided if necessary
- Carry out regular site inspections to monitor compliance with the Site Specific DMPs, 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 PM₁₀ continuous monitoring locations with the local authority. Where feasible, 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 the IAQM guidelines on monitoring during demolition, earthworks and construction
- Inspection and maintenance schedules for construction vehicles, plant and machinery shall be kept up to date
- Where there are potentially dust-emitting activities on site, as a minimum, a daily visual inspection will be made, and a yes/no record kept of whether there is a risk of dust emissions that day
- There will be a nominated person on each site who will investigate, as quickly as reasonably practicable, activities on site that cause exceedances of limit values recorded by the real time monitoring for dust to ascertain if any visible dust is emanating from the site or if any activities are occurring on site that are not in line with the dust control measures
- Any identified causes of limit value exceedances will be rectified where practicable and actions recorded in the site log book
- If the source of the incident cannot be identified as originating from the site operations, operations of other nearby construction sites and other activities will be investigated for potential causes of exceedances.

1.5 Demolition

- Building appraisal and demolition plan: prior to carrying out any building demolition, a detailed pre-demolition and building appraisal by means of surveys, including for asbestos, and appropriate assessments will be required. This will include the surveys listed in the following point. Based on the findings of these surveys, a demolition plan and report will be prepared

- Building survey: this will cover items such as existing building construction materials and fabric, existing and past use, presence of wastewater and hazardous materials, potential dangerous areas, adjoining areas and site conditions, drainage conditions, any shared facilities with adjoining buildings, hoarding and covered walkway requirements, adjoining pedestrian and vehicular conditions, available space for sorting debris, local sensitive receptors with respect to noise, dust, vibration and traffic impact, and street furniture
- Reducing drop heights from conveyors, hoppers etc, as far as practicable, and use fine water sprays on equipment when appropriate
- Rubble chutes will be shielded or enclosed or use of water to suppress dust emissions from such equipment
- All cutting, grinding or sawing equipment on site shall be fitted with or used in conjunction with dust suppression techniques e.g. water sprays or local extraction
- Prior to demolition of any properties, they will be soft stripped inside the buildings (retaining walls and windows in the rest of the building where feasible, to provide a screen against dust)
- During the demolition process, explosive blasting shall be avoided, and water suppression will be used, preferably with a hand held spray.

1.6 Preparing and Maintaining the Site

- Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is practicable
- Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site
- Fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extensive period
- Avoid site runoff of water or mud
- Keep site fencing, barriers and scaffolding clean using wet methods
- Remove materials that have a potential to produce dust from site as soon as practicable, unless being re-used on site. If they are being re-used on-site, cover, seed or fence stockpiles to prevent wind whipping
- Cover, seed or fence stockpiles to prevent wind whipping.

1.7 Operating Vehicles and Machinery, and Sustainable Travel

- Install hard surfaced Construction Roads, which are regularly damped down with fixed or mobile sprinkler systems and regularly cleaned
- All vehicles shall 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
- Impose and signpost a maximum-speed-limit of 20kph on Construction Roads and work areas (if long Construction Road routes are required these speeds may be increased with suitable additional control measures provided, subject to the approval of the nominated undertaker and with the agreement of the local authority, where appropriate)
- Produce a Construction Logistics Plan to manage the sustainable delivery of goods and materials
- Implement a Travel Plan that supports and encourages sustainable travel (public transport, cycling, walking, and car-sharing)
- Measures will be implemented to limit emissions from construction plant and vehicles, which will include the following, as appropriate:

- Operation of construction plant in accordance with the manufacturer's written recommendations
- Construction vehicles to conform to the current EU emissions standards and where reasonably practicable, their emissions will meet upcoming standards prior to the legal requirement date for the new standard
- Vehicle and construction plant exhausts to be directed away from the ground and positioned at a height to facilitate appropriate dispersal of exhaust emissions
- Devices such as dust extractors, filters and collectors on drilling rigs and silos will be used
- Movement of construction traffic around the site will be kept as low as reasonably required for the effective and efficient operation of the site and construction of the project
- Use of tower cranes to reduce vehicle movements (if feasible)
- The use of diesel or petrol-powered generators will be reduced by using mains electricity or battery-powered equipment where reasonably practicable
- Sustainably sourced HVO (Hydrotreated Vegetable Oil) will be used in construction plant and equipment as a 100% replacement of fossil fuels, where available
- Cutting and grinding operations will be conducted using equipment and techniques that reduce emissions and incorporate appropriate dust suppression measures
- Damping down of dust-generating equipment and vehicles within the site and the provision of dust suppression in all areas of the site that are likely to generate dust
- Vehicle, plant and equipment maintenance records will be kept on site and reviewed regularly.

1.8 Operations

- Only use cutting, grinding or sawing equipment fitted with, or in conjunction with, suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems
- There shall be an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where practicable and appropriate
- Use enclosed chutes and conveyors and covered skips
- Mixing of grout or cement-based materials will be undertaken using appropriate techniques/mitigation suitable for the prevention of dust emissions
- Reduce drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment as far as practicable and use fine water sprays on such equipment wherever appropriate
- Equipment shall be 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.

1.9 Waste Management

- No bonfires and burning of waste materials
- Skips will be covered and secured
- Aim for just in time delivery
- Avoid the prolonged storage of waste materials on site.

1.10 Measures Specific to Earthworks

- Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable

- Use Hessian, mulches or tackifiers where it is not feasible to re-vegetate or cover with topsoil, as soon as practicable
- Only remove the cover in small areas during work and not all at once
- Materials will be compacted after deposition, with the exception of topsoil and subsoil on land to be restored for agriculture, forestry, landscaping and wildlife habitats
- All dusty activities will be damped down, especially during dry weather
- Drop heights from excavators to vehicles involved in the transport of excavated material will be kept as low as reasonably practicable
- Topsoil will be stripped as close as reasonably practicable to the period of excavation or other earthworks activities to avoid risks associated with runoff or dust generation
- During dry and windy periods, and when there is a likelihood of dust nuisance, a bowser will operate so that moisture content is high enough to increase the stability of the soil and thus suppress dust.

1.11 Measures Specific to Construction

- Avoid scabbling (roughening of concrete surfaces) if feasible
- Sand and other aggregates shall be stored in bunded areas and not allowed to dry out, unless this is required for a particular process, in which appropriate additional control measures shall be put in place
- Bulk cement and other fine powder materials shall be delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery
- Concrete batching plants will have dust collectors fitted and properly maintained. The plants will also install burst bag detectors, which are connected to the automatic silo overfill protection circuit to stop the flow of cement if a filter bag bursts, in all batching plants
- Concrete batching plants will be maintained on a regular and documented schedule by a competent individual
- The mixing of grout or cement-based materials will be undertaken using a process suitable for the prevention, as far as reasonably practicable, of dust emissions
- For smaller supplies of fine power materials bags shall be sealed after use and stored appropriately to prevent dust.

1.12 Measures Specific to Trackout

2. Site roads (particularly unpaved) can be a significant source of fugitive dust from construction sites if control measures are not in place. The most effective means of suppressing dust emissions from unpaved roads is to apply speed restrictions. Studies show that these measures can have a control efficiency ranging from 25% to 80%.
3. Additional measure specific to trackout are:
 - Use water-assisted dust sweeper(s) on the access points and local roads, to remove, as necessary, any material tracked out of the site. This may require the sweeper(s) being continuously in use
 - Avoid dry sweeping of large areas
 - Use water-assisted dust sweeper(s) or ideally a suction device for road cleaning. Suction devices can access spaces around cars and other street furniture more effectively than traditional dust sweepers, on the access points and local roads, to remove, as necessary, any material tracked out of the site. This may require the sweeper being continuously in use

- Vehicles entering and leaving sites shall be covered to prevent escape of materials during transport
- Inspect on-site roads and paving 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
- Install hard surfaced Construction 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)
- An adequate area of hard surfaced road shall be provided 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 feasible.

1.13 Measures Specific to Construction Compounds

4. In addition to the general dust mitigation measures proposed as part of the Proposed Project, there are also specific measures proposed at Peamount and Drummond Compounds.
5. At Peamount Compound, the mitigation measures put in place to control construction dust will also be considered as mitigation measures with respect to aspergillus as they will reduce the potential for spread of the fungal spores.
6. In relation to aspergillus specifically, survey and prevention works will take place before construction commences by a competent contractor in proximity to any sensitive buildings and in particular in proximity to Peamount Hospital.
7. The prevention works will involve advising that the windows on the façades of the hospital that are in closest proximity to the works are sealed where feasible to limit dust entering the hospital through windows (in line with the National Guidelines for the Prevention of Nosocomial Aspergillosis).
8. An Aspergillus Prevention Plan will be developed by a suitably qualified specialist prior to commencement of works on the site to prevent Aspergillus spores spreading.
9. The National Guidelines for the Prevention of Nosocomial Invasive Aspergillosis will be taken into consideration by the competent contractor as a source for the Aspergillus Prevention Plan.
10. With regard to Drummond Compound, the following measures are proposed to mitigate impacts on sensitive receptors around the compound.
11. The general construction dust mitigation measures will be applicable to the activities associated with the pipeline construction activities up to 500m to the east and west of the Compound location.
12. Bound surface construction roads will be installed alongside the boundary between the Proposed Project, Drummond Compound and the adjoining horticultural business (Monaghan Mushrooms). These will be regularly damped down with fixed or mobile sprinkler systems and regularly cleaned.
 - The Drummond Compound area will be hard surfaced (using tarmac) to reduce dust emissions to the adjoining horticultural business. This will be regularly damped down with fixed or mobile sprinkler systems and regularly cleaned
 - Any grassed areas on site will be kept mown short to prevent flies (which are a disease vector for the adjoining highly sensitive horticultural operations). A mowing schedule will be implemented by the contractor which will include for weekly mowing of grassed areas on site during the growing season (spring/summer). The frequency of mowing will be reviewed by the contractor at regular intervals (minimum monthly) and tailored as necessary.

13. Additional real-time particulate matter monitoring of fine particulate matter (PM₁₀ and PM_{2.5}) will be undertaken at 1 no. location along the northern boundary of the site. This will give the ability to respond to short-term dust events.
14. Should any unplanned events, accidents, or spillages of potentially dusty material occur, they will be dealt with as soon as possible, taking into consideration the mitigation measures in Appendix A12.1.
15. The name and contact details of a person to contact regarding air quality and dust issues will be displayed on the wayleave or Construction Compound boundaries; this noticeboard will also include head/regional office contact details. Community engagement before works commence on-site will be put in place, including a communications plan. All dust and air quality complaints will be recorded and causes identified, along with the measures taken to reduce emissions. This complaints log will be available for viewing by the Local Authority, if requested. Daily on and off site inspections will occur for nuisance dust and to check compliance with the Dust Management Plan.