Hunterston Construction Yard
Construction Dust Management Plan

February 2024

CONTROL SHEET

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1 INTRODUCTION

1.1 Terms of Reference

EnviroCentre has been appointed by Arch Henderson on behalf of Clydeport Operations Ltd., to undertake a Construction Dust Assessment to assess the impacts of dust emissions to air during the upgrade of the existing into Hunterston Construction Yard into harbour facility with the large working platform for renewable industries, south of Fairlie in North Ayrshire.

1.2 Scope of Report

This CDMP has been compiled using the principles outlined in 'Guidance on the assessment of construction dust from demolition and construction' (IAQM, 2024). The CDMP has been produced following the outcomes of EnviroCentre's Construction Dust Assessment (CDA) of the development, as reported in EnviroCentre Report No. 13910.

The results of the assessment concluded that there was a **Low** risk of dust soiling impacts and a **Low** risk for human health impacts for demolition, earthworks, construction and trackout activities. The results of the assessment concluded that there was a **Medium** risk of dust soiling impacts for ecological receptors for demolition, earthworks and construction activities. The risk of impacts as determined in the CDA is summarised below in Table 1-1.

Table 1-1: Summary of Risk of Impacts from CDA

Activity	Risk			
	Demolition	Earthworks	Construction	Trackout
Dust Soiling	Low	Low	Low	Low
Human Health PM_{10}	Low	Low	Low	Low
Dust Soiling (Ecological)	Medium	Medium	Medium	N/A

The objective of this plan is to provide a framework for construction dust management to ensure that construction dust levels at sensitive receptors remain within reasonable limits throughout the works. It is the responsibility of the individual contractor to ensure the dust control measures are implemented.

This CDMP is a live document which will be reviewed on a regular basis and updated as required.

1.3 Report Usage

The information and recommendations contained within this report have been prepared in the specific context stated above and should not be utilised in any other context without prior written permission from EnviroCentre Limited.

If this report is to be submitted for regulatory approval more than 12 months following the report date, it is recommended that it is referred to EnviroCentre Limited for review to ensure that any relevant changes in data, best practice, guidance or legislation in the intervening period are integrated into an updated version of the report.

2 CONSTRUCTION DUST MANAGEMENT

2.1 Construction Dust Management Plan (CDMP)

This CDMP sets out the approach to managing construction dust impacts during site operations.

2.2 Contact Details

The contact details of the project team and roles and responsibilities are listed in Appendix B. As a live document, the contact details and roles and responsibilities will be updated as the project progresses, and individual roles are finalised.

2.3 Implementation and Organisation

This CDMP will be implemented by Clydeport Operations Ltd. through contracts with individual contractors.

The Site Manager will be responsible for ensuring that this CDMP is correctly implemented. The Site Manager will review all documentation relating to construction dust management prior to it being issued.

2.4 Lines of Communication

The Site Manager is responsible for ensuring the requirements of the CDMP are explained to all staff and contractors working on the site. The aim is to ensure they are fully aware of the environmental sensitivities and the control/mitigation measures in place to protect against adverse construction dust effects. If required, specific training will be provided for site personnel.

2.5 Monitoring and Review

The Site Manager shall ensure that the CDMP is reviewed regularly (and no less frequently than monthly) to ensure that:

- The objectives and requirements of the CDMP are still valid and are being met; and
- Forthcoming activities are reviewed and any necessary amendments to the CDMP are put in place before the relevant work begins.

2.6 Public Engagement

A key aspect of this CDMP is public engagement. A site contact for the public for the duration of the works will be appointed. Details for the site contact will be posted on exterior signage at a location visible to the public. The site contact will communicate with the local community on the following issues:

- Individual notification will be provided, and meetings offered to residential neighbours in close proximity to construction works; and

- Further information will be regularly provided to all residential neighbours with an update on the progress of the works, and the specific activities (including locations) due to be undertaken next. Updates will be provided prior to any potential dusty activities commencing on site.

2.7 Complaints

Any dust complaints that are received or issues relating to construction dust resulting from abnormal operations will be directed to the Site Manager.

The Site Manager will investigate the source of the complaint / abnormal activity and implement mitigation measures (if required) as soon as practicably possible.

The source and nature of the complaint including the mitigation measures implemented (if undertaken) will be documented in dust complaint record sheets and these records kept on site. An example of a dust complaint record sheet is provided in Appendix E. Dust complaint records must be made available to North Ayrshire Council if requested to do so.

3 PROJECT OVERVIEW

3.1 Site Location & Development

The proposed development consists of upgrade of the existing Hunterston Construction Yard into harbour facility with the large working platform for renewable industries, south of Fairlie in North Ayrshire.

The site extends out into the Firth of Clyde with Hunterston Power Stations ~1km to the south, Fairlie village ~1.9km to the northeast, the island of Great Cumbrae ~1.4 km to the northwest and the redundant Hunterston Coal Terminal ~500m to the east. See Drawing No. 176482-GIS001, Appendix A. The site is centred at Grid reference 218793 , 652942.

It is accessible from the A78 via the Hunterston Roundabout and Power Station Road leading onto Oilrig Road.

3.2 Construction Programme

A basic programme of construction is provided in Appendix C. The programme is indicative and will be continually updated as the development progresses.

3.3 Specified Working Periods

All construction works will be accommodated within the working hours described below:

- Weekday Working Periods- 07:00hrs to 18:00hrs.
- Saturday – 08:00hrs to 13:00hrs
- Sundays – no work, unless otherwise agreed in writing the Planning Authority.

4 SOURCE PATHWAY RECEPTOR

The site specific CDMP has been developed taking into account the source-pathway-receptor linkage as detailed below. The source-pathway-receptor linkage is open to continuous review as part of the CDMP.

4.1 Principle Construction Dust Sources

Site operations with the potential to generate construction dust are as follows:

- General Site Works (including site/compound layout management);
- Haul routes, construction plant and vehicle movement;
- Transportation, storage and handling of materials;
- Excavation, infilling and earthworks activities including soil strip, piling, housing platform works and cut and fill activities; and
- Cutting, grinding and sawing.

4.2 Pathways

Construction dust has the potential to migrate from the site and cause a nuisance to surrounding areas. During dry and windy weather conditions, the potential for construction dust to migrate from the site increases.

Construction dust may also be carried out from the site on the wheels of vehicles exiting the site.

4.3 Receptors

The main receptors have been identified as per EnviroCentre's Hunterston Construction Dust Assessment (EnviroCentre Report No. 13910). The human sensitive receptors comprise existing residential dwellings and commercial/office properties located on surrounding area with sensitive receptors located outside distance of 350 m from the site. Non-residential sensitive receptors identified outside 350 m of the site boundary include Hunterston Power Station; WHVDC Converter Station (Electrical Sub-station) and Peel Ports Hunterston PARC.

Two ecological receptors comprising of SSSI Sandflats are located within 50 m of the site boundary (both at the east and west).

For sensitive receptor locations refer to Drawing No. 176482-GIS002, Appendix A.

4.4 Overall Risk

Dust emissions are subject to significant variation from day-to-day and across the seasons. In Hunterston for the majority of the year the prevailing weather conditions, including high rainfall, will assist in reducing the likelihood of construction dust nuisance. However, there is potential for construction dust nuisance to be a problem on dry and windy days.

5 CONTROL MEASURES

All site works will be undertaken in such a way that best practise is followed at all times to minimise construction dust emissions, and all necessary measures will be implemented as far as reasonably possible to reduce airborne dust levels and to prevent damage, loss, injury, or nuisance caused by dust at all times during construction.

The control measures provided in Table 5-1 shall be adopted by contractors as the basis of the site-specific construction dust management plan. For each control measure the performance target is no visible construction dust passing the site boundary. The control measures provided are commensurate with the determined risk of impact (see Section 4.4) for earthworks, construction and trackout in line with the measures outlined in 'Guidance on the assessment of construction dust from demolition and construction' (IAQM, 2024).

The list of mitigation measures provided in Table 5-1 is not exhaustive and additional actions may be identified as a result of source-pathway-receptor reviews, future improvements in best practise techniques, etc.

Should the measures detailed in Table 5-1 be inadequate to control construction dust due to unforeseen circumstances on site the appointed person(s) (see Appendix B) will liaise with North Ayrshire Council to establish a suitable solution.

The party responsible for implementing each control measure is the individual contractor as outlined in Section 2.2 of this document.

Table 5-1: Dust Control Measures

Ref No.	Mitigation Measures
Communications	
1.	Develop and implement a stakeholder communications plan that includes community engagement before work commences on site.
2.	Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. This may be the environment manager/engineer or the site manager.
3.	Display the head or regional office contact information.
4.	Develop and implement a Dust Management Plan (DMP), which may include measures to control other emissions. The DMP may include monitoring of dust deposition, dust flux, real time PM10 continuous monitoring and/or visual inspections.
Site Management	
5.	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 all dust complaints on the dust complaint record log (Appendix E).
6.	Make the dust complaints log available to the local authority when asked.
7.	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 dust monitoring logbook.
8.	Hold regular liaison meeting with other high risk construction sites within 500m of the site boundary, to ensure plans are co-ordinated and dust and particulate matter emissions are minimised. Understanding interactions of the off-site transport which may use the same strategic road networks is vital.
Monitoring	

Ref No.	Mitigation Measures
9.	Undertake daily on-site and off-site inspection, to monitor dust, record inspection results, and make the dust monitoring log available to the local authority when required. This should include regular dust soiling checks of surfaces such as street furniture, cars and windowsills within 100m of site boundary, with cleaning to be provided if necessary. See example Dust Monitoring Sheet in Appendix D.
10.	Carry out regular site inspections to monitor compliance with the CDMP, record inspection results, and make an inspection log available to the local authority when asked.
11.	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.
12.	Agree dust deposition, dust flux, or real-time 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 a large site, before work on a phase commences. Further guidance is provided by IAQM on monitoring during demolition, earthworks and construction.
Preparing and Maintaining the Site	
13.	Plan site layout so that machinery and dust causing activities are located away from sensitive receptors, as far as is possible.
14.	Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site.
15.	Fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extensive period.
16.	Avoid site runoff of water or mud.
17.	Keep site fencing, barriers and scaffolding clean using wet methods.
18.	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.
19.	Cover, seed, or fence stockpiles to prevent wind whipping.
Operating Vehicle/Machinery and Sustainable Travel	
20.	Ensure all vehicles switch off engines when stationary - no idling vehicles.
21.	Avoid the use of diesel- or petrol-powered generators and use mains electricity or battery powered equipment where practicable.
22.	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, subject to the approval of the nominated undertaker and with the agreement of the local authority, where appropriate).
23.	Produce a Construction Logistics Plan to manage the sustainable delivery of goods and materials.
24.	Implement a Travel Plan that supports and encourages sustainable travel (public transport, cycling, walking, and car-sharing).
Operations	
25.	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.
26.	Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.
27.	Use enclosed chutes and conveyors and covered skips.
28.	Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.
29.	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.

Ref No.	Mitigation Measures
Waste Management	
30.	Avoid bonfires and burning of waste materials.
Earthworks	
31.	Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable.
32.	Use Hessian, mulches or trackifiers where it is not possible to re-vegetate or cover with topsoil, as soon as practicable.
33.	Only remove the cover in small areas during work and not all at once
Construction	
34.	Avoid scabbling (roughening of concrete surfaces) if possible.
35.	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.
36.	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.
37.	For smaller supplies of fine powder materials ensure bags are sealed after use and stored appropriately to prevent dust.
Trackout	
38.	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.
39.	Avoid dry sweeping of large areas.
40.	Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport.
41.	Record all inspections of haul routes and any subsequent action in a site logbook.
42.	Inspect on-site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable.
43.	Install hard surfaced haul routes, which are regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned.
44.	Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable).
45.	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.
46.	Site access gate should be located at least 10m from receptors where possible.
Demolition	
47	Soft strip inside buildings before demolition (retaining walls and windows in the rest of the building where possible to provide a screen against dust)
48	Ensure effective water suppression is used during the demolition operations. Hand held sprays are more effective than hoses attached to equipment as the water can be directed to where it is needed. In addition high volume water suppression systems, manually controlled, can produce fine water droplets that effectively bring the dust particles to ground.
49	Avoid explosive blasting, use appropriate manual or mechanical alternatives.
50	Bag and remove any biological debris or damp down such material before demolition

6 MONITORING PROCEDURE

Construction dust levels on site will be monitored on a regular basis by the contractor taking into account the guidance provided below:

- The contractor will appoint a person responsible for monitoring visual dust release throughout the duration of the works;
- Contact information for this person and/or deputy will be provided to North Ayrshire Council and displayed on site signage in advance of any works commencing;
- The appointed person will be contactable 24 hours per day, 7 days per week throughout the duration of the works;
- During normal site working hours, construction dust monitoring will consist of regular visual checks by the appointed person(s) or deputy. Details of such checks will be documented in a dust monitoring log with details such as date, time, location, weather conditions and observations recorded. The outcomes of the review will be recorded (refer to Appendix E for an example of site dust monitoring record log);
- The appointed person(s) will be supported by employees throughout the site who will report any problems with construction dust levels in their area to the appointed person(s);
- The weather forecast for the next working day will be checked by the appointed person(s) prior to the end of each working day;
- If it is deemed that construction dust is likely to arise from any particular construction works when combined with actual/forecast weather conditions, the affected area will be controlled with a suitable measure to prevent construction dust becoming airborne;
- If dry and windy weather is expected over the duration which the site is closed, then measures, dependent on the type of activity in progress will be implemented as far as reasonably possible so that these weather conditions do not lead to high levels of construction dust/debris becoming airborne until the next working day; and

Note: The above list is not exhaustive and additional actions may be identified as a result of source-pathway-receptor reviews, future improvements in best practise techniques, etc.

REFERENCES

EnviroCentre (2023). *Hunterston Construction Yard Construction Dust Assessment*. Document reference no 13910.

IAQM (2024). *Guidance on the assessment of dust from demolition and construction*. London: IAQM. v2.2

APPENDICES

A DRAWINGS

B PROJECT CONTACT DETAILS

Role	Company	Contact	Contact Numbers	Responsibility
Site Manager				
Technical Expert				
Construction Manager				
Engineer				

C CONSTRUCTION PROGRAMME

No.	Item	Date*
1.	Pre- Start Meeting	
2.	Earthworks Start	
3.	Site Infrastructure Start	
4.	Housing Start	
5.	First Unit Complete	
6.	Site Complete	

* This CDMP is a live document and the construction programme will be updated as the project progresses.

D EXAMPLE DUST VISUAL MONITORING LOG SHEET

Date	Time	Name of Inspector	Weather Conditions (i.e. dry, rain, wind speed, wind direction etc.)	Location(s) checked	Observations	Actions	Remedial Dust Mitigation Measures Applied

E EXAMPLE DUST COMPLAINT LOG SHEET

Date	Time	Complaint Number	Details of Complaint	Weather Conditions (i.e. dry, rain, wind speed, wind direction etc.)	Observations	Actions	Remedial Dust Mitigation Measures Applied