

Construction Environment Management Plan

Northfleet Green Hydrogen Facility

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Revision History

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1 Introduction & Scope

1.1 Introduction

The principal objective of this document is to provide details of the proposed environmental management arrangements during the construction of the Northfleet Hydrogen Green Hydrogen Facility in accordance with Planning Condition 6 of planning consent reference 20230906.

1.2 Description of the site

The proposed scheme comprises containerised hydrogen electrolyzers. In addition, the project will incorporate hydrogen storage tanks necessary to store the hydrogen gas, a substation compound, substation buildings, and ancillary plant and infrastructure.

During the construction phase, temporary construction facilities will include a site office, welfare areas, parking and storage areas for plant and materials.

1.3 Indicative programme

Below is an indicative programme for the key project milestones.

	2025			2026												2027		
	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March
Civil works																		
Mechanical installation																		
Commissioning																		

1.4 Planning condition

Condition 6 of planning consent reference 20230906 is as follows:

Notwithstanding the details shown on the approved plans, submitted documents and application form, before any works commence, a Construction Environmental Management Plan (CEMP) shall be submitted to and approval in writing by the Local Planning Authority.

The CEMP shall make reference to BS5228 Noise Vibration and Control on Construction and Open Sites, the Control of Dust from Construction sites (BRE DTi Feb 2003) and the Institute of Air Quality Management (IAQM) 'Guidance on the Assessment of Dust from Demolition and Construction'. The construction of the development shall then be carried out in accordance with the approved methodology.

The CEMP shall include:

- *Measures to prevent the mobilization of any identified contaminants during construction.*
- *Procedures for dealing with unexpected contamination discovered during construction.*
- *Plans for managing excavation and disposal of contaminated materials in compliance with relevant waste regulations.*
- *An indicative programme for carrying out the works.*

- *Measures to minimise the production of dust on the site(s).*
- *Measures to minimise the noise (including vibration) generated by the construction process to include the careful selection of plant and machinery and use of noise mitigation barrier(s).*
- *Maximum noise levels expected 1 metre from the affected façade of any residential unit adjacent to the site(s).*
- *Design and provision of site hoardings.*
- *Management of traffic visiting the site(s) including temporary parking or holding areas.*
- *Provision of off-road parking for all site operatives.*
- *Measures to prevent the transfer of mud and extraneous material onto the public highway.*
- *Measures to manage the production of waste and to maximise the re-use of materials.*
- *Measures to minimise the potential for pollution of groundwater and surface water.*
- *The location and design of site office(s) and storage compounds.*
- *The location of temporary vehicle access points to the site(s) during the construction works.*
- *The arrangements for public consultation and liaison during the construction works.*

2 Site Management

2.1 Construction facilities

Drawing 05135-RES-ACC-DR-PE-001 in Appendix A identifies the areas proposed for temporary on-site construction facilities.

Temporary on-site construction facilities will include a self-contained office and welfare unit/security gatehouse with an area for storage of large plant and materials. As the permanent works progress, the position of these facilities may vary. Welfare facilities shall comply with Construction (Design and Management) Regulations 2015.

2.2 Off-road parking

Drawing 05135-RES-ACC-DR-PE-001 in Appendix A identifies areas proposed for construction traffic off-road parking.

Off-road parking for construction traffic will be located within the Kimberly Clark papermill site, either in areas already designated for parking, or over grassed areas.

In the event that additional parking is required, contractors' personnel will be requested to adopt alternative means of transport to minimise number of vehicles. Such alternative solutions may include lift sharing, use of a minibus, and using the carpark of a nearby business premises.

2.3 Deliveries

Heavy goods vehicles will offload within the main site or a temporary on-site construction area. The site manager will evaluate details of upcoming deliveries for each coming week and through discussions with hauliers will ensure that deliveries are spread out across each week and each day. This measure will ensure that no vehicles would have to wait on the surrounding public road network.

2.4 Traffic management

Document 05135-6055120 in Appendix B is the Transport Statement submitted as part of the Northfleet HPF planning application. This report identifies the wider access routes to site from the A2 road to the south, for regular construction traffic as well as AILs.

Drawing 05135-RES-ACC-DR-PE-001 in Appendix A identifies the proposed routes for construction traffic to reach site from public roads. The drawing also identifies the areas proposed off-road parking for construction traffic. This is a slight amendment to that included in the Transport Statement.

In the event additional parking is required during the period of works where the number of contractors will be greatest, contractors' personnel will be requested to adopt alternative means of transport to minimise number of vehicles e.g. minibus or to park at other public parking areas, or in line with any other off-site private parking arranged by the contractor e.g. nearby business premises.

Clear signage will be erected at the site entrance showing access routes and parking locations.

2.5 Site offices and storage of plant & materials

Temporary construction areas are shown in 05135-RES-ACC-DR-PE-001 in Appendix A. Site offices will be temporary prefabricated structures. Materials will be stored in fences laydown areas or containers as appropriate.

2.6 Temporary security fencing

Although the papermill site is itself secure, the hydrogen plant site will be secured using temporary fencing (a mixture of Heras or alternative fencing), which will be maintained by the main civil contractor until the permanent fencing is installed.

Statutory health and safety signage shall be displayed at the site entrance together with the contact details of the Principal Contractor. No decorative displays will be used during the construction phase and there shall be no viewing areas for the general public.

24hr CCTV monitoring will be provided via an external security company from a central control centre which will cover the site and storage areas.

2.7 Mud prevention measures

It is intended to retain much of the existing concrete ground slab present on site for use as the internal roads and hardstanding of the hydrogen facility compound, therefore there will be minimal mud.

During the works, measures shall be in place to ensure that debris is not spread onto the adjacent public highway. The public highway will be regularly inspected, and any deposited debris or mud will be dealt with immediately by means of a road sweeper.

2.8 Dust suppression

It is intended to retain much of the existing concrete ground slab present on site for use as the internal roads and hardstanding of the hydrogen facility compound. Earthworks on site will therefore be minimal.

Where necessary, a mains water supply or bowser will be made available on site and to suppress any hazardous levels of dust generated from cutting the existing concrete ground slab, or the limited quantities of fine aggregate anticipated. Dry sweeping of large areas shall be avoided.

Any stored loose bulk material (such as aggregates) shall be sheeted. Any fine material (e.g. cement) shall be stored in enclosed container and suitably controlled to prevent escape.

Detailed measures implemented during the works shall follow guidance in *Control of Dust from Construction sites* (BRE DTi Feb 2003) and the Institute of Air Quality Management (IAQM) *Guidance on the Assessment of Dust from Demolition and construction*.

2.9 Noise & vibration

Noise and vibration related to construction activities will not result in any significant effects and will be below standard required thresholds.

During the targeted commissioning window there may be short term increased levels of noise (such as vent stack testing) but these are likely to be very brief. These would be outside of antisocial hours.

Construction works are located within an operational papermill and there are no residential properties within the vicinity of the site.

Operating plant will be kept within the time periods and standards dictated for the site. Any non-compliant plant will be stopped and stood down until it can be rectified and/or removed from site.

The following mitigating measures will help to minimise potential noise and vibration effects on workers within the papermill site:

- Vehicles and machinery shall be switched off when not in use
- Correct fitting and maintenance of silencers and/or enclosures
- Avoiding excessive and unnecessary revving of engines

Any noise complaints will be immediately directed to the Site Manager. Depending on the nature of the complaint, the initial response could be to immediately cease the activity until suitable mitigation measures have been put in place and agreed with the affected party.

Detailed measures implemented during the works shall follow guidance in BS5228 *Noise Vibration and Control on Construction and Open Sites*.

The maximum noise levels expected 1 metre from the façade of any residential unit adjacent to the site is expected to be well below the applicable daytime noise limit of 65dB L_{Aeq} as defined in BS 52281:2009+A1:2014 due to the large distances of approximately 370 m and greater to neighbouring residences.

2.10 Recycling / waste disposal

It is intended to retain much of the existing concrete ground slab present on site for use as the internal roads and hardstanding of the hydrogen facility compound. This will ensure that removal of existing materials will be minimised.

Each contractor shall ensure the correct storage and disposal of all construction waste in accordance with Site Waste Management Plans. Waste shall only be removed from site by licensed carriers in possession of a current certificate of registration (Control of Pollution Act 1989). Copies of such certificates will be verified by each contractor as well as periodically checked by the Principal Contractor duty holder under Construction Design and Management Regulations 2015 (CDM).

Waste will only be transferred to a disposer licensed to receive the categories of waste involved, with the contractor undertaking spot checks to ensure this happens. Where practicable, types of waste will be streamlined/segregated for re-cycling and reuse.

Where required by the remediation strategy identified in 3.2, excavated hazardous waste will be removed from site and disposed of appropriately.

3 Environment

3.1 Pollution control

Best practice measures will be implemented to minimise pollution due to construction operations. An emergency spill kit will be available on site and site operatives will be trained in its use. On site fuel tanks will be double skinned. Refuelling will take place over drip trays with a spill kit nearby.

All chemicals will be stored within a storage container with accompanying COSHH data sheets.

Contaminated water will be attenuated and treated if required prior to discharging into existing drainage routes.

Concrete will be washed out of delivery vehicles in a designated area, with mitigation in place to eliminate the risk of this contaminating ground water.

3.2 Remediation

No contaminated land has been identified on site. If any unexpected contamination is discovered during construction, a detailed remediation scheme will be developed and submitted to the Local Planning Authority for approval.

Any undesirable material observed during excavation of the existing ground shall be screened and removed in accordance with relevant legislation. If any areas of odorous, abnormally coloured or suspected contaminated materials are encountered during development works, then operations shall cease, and the exposed materials shall be chemically tested.

The works shall not continue in the area of the contamination until an amended risk assessment and, if required, remediation and monitoring measures have been agreed.

4 Public consultation

4.1 Points of contact

A dedicated Community Liaison Officer will be provided to engage with residents throughout the construction phases of the project, and a regular point of contact assigned for the operational phase.

A dedicated project website is already available (northfleet-greenhydrogen.co.uk) and relevant points of contact will be added or amended as required.

Appendix A – Drawings

05135-RES-ACC-DR-PE-001	Proposed Access Route and Construction Support Areas	06
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Appendix B – Transport Statement

05135-6055120	Northfleet Green Hydrogen Facility Transport Statement	03
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