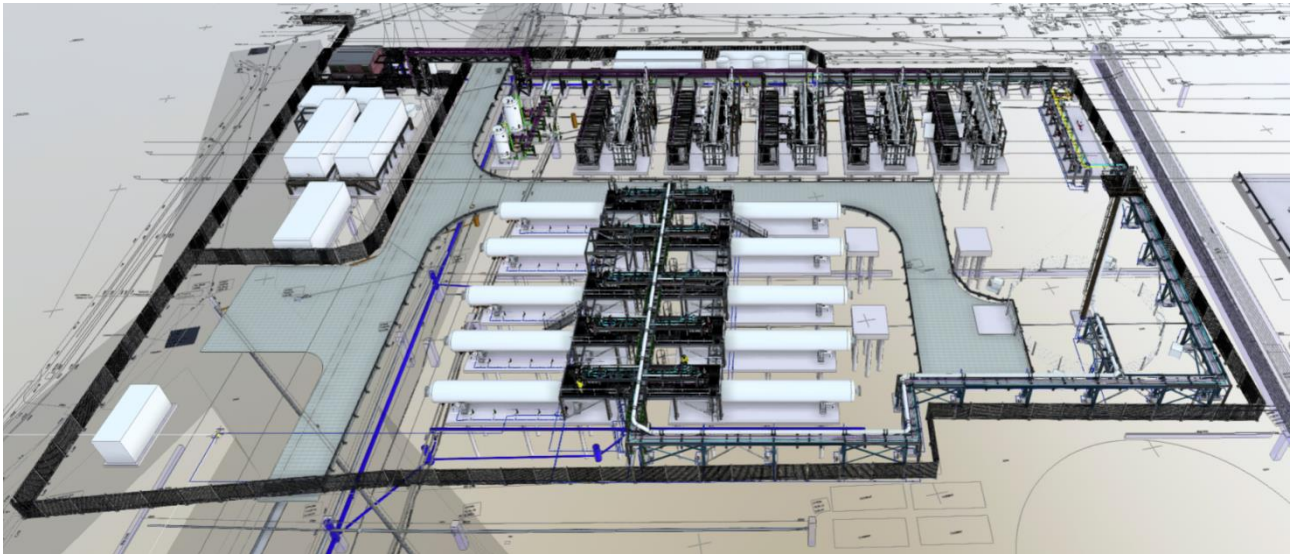




Northfleet GreenHydrogen Production Facility

HYRO05135-NIR-C12-02-HSE-C-006-Unexploded Ordnance (UXO) Risk Management Plan

Octopus Energy Generation
Date: 17 December 2025

Rev.no.	Date	Description	Prepared by	Verified by	Approved by
P01	11/12/2025	1 st Issue	KHLL	DHOO	ROSU
P02	17/12/25	Updated with RES commentary	ROSU	KHLL	ROSU

Notes for the reader:

- To be filled in by site health and safety manager or equivalent competent person.
- The template below is designed to be completed by the client or a representative of the client who is responsible for the management or health and safety of a project site.
- It is designed to be site specific and once completed, it acts as an Unexploded Ordnance (UXO) Risk Management Plan to stay on site for the duration of the project.
- The template takes the user through the recommended steps and considerations that should be taken into account or actioned in order to effectively deal with potential UXO risk during a construction project.
- This template should be completed with reference to UXO Risk Management Guidelines Sections 1-6.
- The steps within this plan are considered to be a minimum (but not limited) 'best practice' set of considerations for the management of UXO risk, but may not apply to every site and every situation.

Project/Site Information	
Client Name	Octopus Energy Generation (via Kimberly Clark Corporation)
Contractor Name	NIRAS Group UK Ltd
Project Name	Northfleet Green Hydrogen Production Facility
Project Reference (if applicable)	
Site Address	Kimberly Clark Mill, Northfleet, Kent, DA11 9AD
Name of Client Representative completing UXO Plan	
Site Opening Hours	07:00 – 19:00
Approx. max number of people on site	TBC
What is the nature of the proposed development/works	Construction of a Green Hydrogen Production Facility, including civils works, foundations, piling, trenching, installation of underground hydrogen pipeline, installation of electrolyser units and associated mechanical, electrical, and process infrastructures.

Section 1 – UXO Risk Assessment				
Has a UXO Risk Assessment been undertaken for this project?		Yes	X	No
<i>If 'No', it is recommended that an assessment is undertaken before continuing. In certain circumstances, this may not be essential (such as where UXO has already been encountered on a site, or where there is empirical evidence of UXO risk). However, even in these cases, it is recommended that the risk to works be assessed by a UXO specialist.</i>				
Who undertook UXO Risk Assessment		1st Line Defence Ltd		
What risk from UXO was assessed? <i>Generally, UXO risk assessments will rate the risk on site low, low-medium, medium, medium-high, high or very high (or a combination of these if the site is 'zoned' into different risk areas). If a risk map has been created, add this as an attachment to this plan and reference the report.</i> <i>List the nature of the threat identified – German bombs, British land service ammunition (grenades, mortars, mines etc.) anti-aircraft projectiles.</i>		The assessment considered the potential presence of German World War II air-delivered high-explosive bombs (UXBs) and other ordnance types that may remain as unexploded items within the site boundary. The assessed overall risk classification for the site is: Low–Medium UXO Risk This risk rating reflects the site's location in an area subjected to significant WWII bombing activity, combined with varying levels of post-war redevelopment and intrusive works that may or may not have fully mitigated deeper UXO hazards.		
Outline the key points of the risk assessment/summary of findings <i>Summarise the main points of the assessment – history of the site (especially any military history) whether it is bombed, bomb damage, frequency of access, ground cover etc.</i>		The Northfleet site lies within an area of historically intense WWII bombing, associated with the industrial infrastructure along the River Thames and surrounding manufacturing facilities. Although no confirmed UXB strikes are recorded <i>within</i> the development footprint, several confirmed bomb strikes were recorded immediately adjacent to the site, including within the former Bowater Paper Mill. Historical mapping indicates the site has undergone post-war redevelopment, which reduces shallow UXO risk in reworked areas; however, deep UXO risk remains possible where ground has not been fully penetrated or disturbed. The site contains significant made ground up to 4.5m deep, overlying chalk, which is capable of allowing deeper penetration of German aerial bombs. No UXO has been previously recorded on the site, and none was identified during the 2025 ground investigation; however, GI coverage is limited and cannot eliminate the possibility of UXO between exploratory locations. Based on available historical evidence, ground conditions, and proposed intrusive works (including piling, trenching and pad excavation), the UXO specialist assesses the site as presenting a Low–Medium risk from buried unexploded German aerial bombs.		

Section 2 – UXO Risk Mitigation Measures

What UXO risk mitigation measures have been or will be put in place? (please outline)

A UXO Specialist can recommend and provide various types of risk mitigation measures, both proactive and reactive which can be undertaken to reduce the risk from UXO to as low as reasonably practicable (ALARP)

A number of proactive and reactive mitigation measures have been or will be implemented to ensure the risk from UXO is reduced to as low as reasonably practicable (ALARP). These measures follow the recommendations of the Detailed UXO Risk Assessment undertaken by 1st Line Defence and industry best practice (CIRIA C681).

1. Implementation of a UXO Risk Management Plan

This document sets out the procedures, responsibilities, communication lines and emergency measures for managing UXO risk during the project. It will be reviewed and updated as the design and site information develops.

2. UXO Awareness Briefings

Prior to the commencement of any intrusive works, a UXO Awareness Briefing will be delivered to all personnel involved in excavation, trenching, piling or ground disturbance. This briefing may be delivered by the Principal Contractor (Site Manager / H&S Manager) using the information contained within the 1st Line Defence UXO Risk Assessment and UXO guidelines.

The briefing will include:

- Examples of UXO types relevant to the site (German HE bombs, AA projectiles)
- How to recognise indicators of buried UXO
- Stop-work procedures
- Evacuation requirements
- Communication and reporting arrangements

If the Client requests or if the risk level warrants it, a formal UXO Specialist briefing (1st Line Defence) will be arranged prior to mobilisation.

3. Inclusion of UXO Controls in Site Induction & Toolbox Talks

UXO hazard information, emergency actions and coordinator contact details will be incorporated into:

- Site induction (pre-construction version to be updated before mobilisation)
- Task-specific toolbox talks for groundworkers and machine operators

4. Appointment of UXO Coordinators

A Primary On-Site UXO Coordinator and a Secondary (Off-Site) UXO Coordinator will be nominated to manage UXO procedures, stop-work authority, communications and liaison with the UXO Specialist. This ensures a clear chain of command in the event of a suspected UXO discovery.

	5. Emergency “Actions on Discovery” Procedure A clear UXO Emergency Action Procedure will be developed and finalised prior to commencement of intrusive works. This procedure will set out: • How work will be stopped immediately • How the area will be evacuated and cordoned off • Who must be informed (Primary/Secondary UXO Coordinator, 1st Line Defence, Emergency Services) • How the site will be secured until assessment is complete Once the site is established, this procedure will be: • Included in the CPP • Communicated during induction • Displayed on site • Briefed to all personnel involved in excavation, piling, or ground disturbance 6. Monitoring and Vigilance During Intrusive Works Supervisors and plant operators will remain vigilant for anomalies, buried metallic items or suspicious objects during groundworks. Any such items will trigger immediate stop-work and implementation of the emergency UXO procedure. 7. Contact Arrangements with UXO Specialist 1st Line Defence can provide technical advice, remote assessment, and emergency call-out if required. 8. Integration of UXO Controls into RAMS and the CPP All contractors will be required to include appropriate UXO control measures in their RAMS. The Construction Phase Plan (CPP) will incorporate UXO roles, procedures and communication arrangements. 9. Evacuation & Muster Arrangements Evacuation will follow the Principal Contractor’s Emergency Plan. A site-specific evacuation drawing will be added when the construction layout is confirmed.			
Name of UXO Consultant	1 st Line Defence			
Contact Details of UXO Consultant	3 Maple Park, Essex Road, Hoddesdon, EN11 0EX, 01992 245 020			
Verification report provided following on-site support?	Yes	X	No	

Verification that UXO risk mitigation measures have been undertaken, including details of the methodology used, should be attached with this plan. This can be provided by the UXO specialist who undertook the support. This is often only provided following Intrusive or Non-intrusive UXO Survey.

Has UXO been encountered on site?	No UXO has been encountered on site to date.
(provide details)	During the 2025 Ground Investigation works carried out by Erda Associates — including trial pits (up to 2.9m depth), window sample boreholes (to 5m), and cable percussive boreholes (to 10m) — no items consistent with unexploded ordnance were identified or reported in any exploratory locations. The 1st Line Defence Detailed UXO Risk Assessment also notes no recorded historical UXO finds within the site boundary, although several confirmed WWII bomb strikes were recorded in the immediate surrounding area. The absence of UXO finds does not eliminate the possibility of deeper UXO, due to the limited footprint of ground investigation works and the residual Low–Medium UXO risk rating for the site. UXO controls therefore remain in place during all intrusive construction activities.

Section 3 - Site UXO Coordinator(s)				
Has a site UXO Coordinator(s) been identified and trained?	Yes	X	No	
<i>In the event that a UXO Specialist is not present on site or is unavailable, a suitable person (or ideally multiple nominated persons) should be identified to act as a "UXO Coordinator". This will often be the person(s) responsible for management or health & safety of the site. If a suspect item is encountered, the UXO Coordinator should be informed.</i>				
Primary UXO Coordinator	Name	Niras CDM Safety Manager – Name TBC		
	Primary Contact No.	TBC		
	Secondary Contact No.	TBC		
	Email address	TBC		
Secondary UXO Coordinator	Name	Kate Hall		
	Primary Contact No.	07590778660		
	Secondary Contact No.	07974302351		
	Email address	khll@niras.com		

Section 4 - Worker/Visitor/Sub-contractor UXO Awareness				
Is UXO Awareness incorporated into site visitor induction?	Yes		No	X – but will be
"Actions on Discovery of Suspect Item" poster displayed on-site?	Yes		No	X – but will be
Do ground workers receive a UXO safety and awareness briefing?	Yes		No	NO – Briefing will be delivered prior to intrusive works.
<i>If the answer to any of the above is 'no', it is recommended that these points be reviewed and actioned where possible.</i>				

Section 5 – Lines of Communication

Communications Protocol

Summarise the means of communicating/raising alarm in the event that a suspect item is encountered – mobile phone, radio, PA system, runners etc.

Communications Protocol

In the event that a suspected UXO item is encountered, the following communication and alarm-raising methods will be used:

- **Verbal warning** to immediately stop works and alert nearby workers
- **Two-way radio communication** (where available) to notify the CDM Safety Manager / Primary UXO Coordinator
- **Mobile phone** communication to escalate to:
 - Primary UXO Coordinator
 - Secondary UXO Coordinator (H&S Manager)
 - UXO Specialist (1st Line Defence)
 - Emergency Services (999 – Police) if required
- **Runner/messenger system** (if communication equipment is unavailable or inoperative)
- **Site alarm / PA system** (to be used once the construction phase site compound is installed)

Until the site is formally established, the primary means of raising the alarm will be verbal warning and mobile phone contact with the Primary UXO Coordinator.

A clear internal communication chain will be briefed to all site personnel prior to the start of intrusive works.

Local Emergency Contact Details

Police Station No.

In event of emergency, always dial 999

Hospital No.

01322 428100

Hospital Address

Darenth Wood Road, Dartford, Kent, DA2 8DA

1st Line Defence

01992 245020

Site Manager No.

TBC

Client Contact No.

TBC

Site emergency/out of hours contact number

07590778660

Section 6 – Evacuation Planning				
Is there a plan for evacuating the site in place – e.g. in the event of fire?	Yes		No	X site not yet established – plan to be developed prior to mobilisation
<i>If 'Yes', attach evacuation plan and evacuation routes to this document. The plan should show emergency muster points off site e. Ideally, plan should also show location of site office, welfare units, toilets, fuel dumps etc. If 'No', develop a plan for evacuating the site showing alternative exit routes.</i>				
Are workers/visitors/sub-contractors made aware of evacuation plan?	Yes		No	X site not yet established – plan to be developed prior to mobilisation
How are visitors made aware of evacuation plan?	Visitors will be briefed during signing-in at the site office and will receive a summary of the evacuation procedure, including muster point locations and alarm signals.			
Summarise means of raising alarm on site/evacuation plan	Once the site is established, the following methods will be used to raise the alarm: • Verbal alarm – immediate stop-work and warning shout • Two-way radios – to alert Site Manager / UXO Coordinator • Mobile phone communication – escalation route to emergency services and management • Site alarm / PA system – to be installed as part of the temporary works / site setup • Runner/messenger system – if radios or alarms are unavailable Until the site compound is installed, the primary means of raising an alarm will be verbal alert followed by mobile phone escalation.			
Detail arrangements for checking off and accounting for all workers/visitors	Once the site becomes operational, the following procedures will apply: • Sign-in register / digital access control will be used to maintain an accurate record of everyone on site. • During an evacuation, the CDM Safety Manager will collect the sign-in sheet and proceed to the muster point to carry out a roll call. • Supervisors will confirm the presence of their teams. • Visitors will be accompanied by their host and checked off against the visitors' log. • Any missing persons will be immediately reported to the Site Manager, and emergency services will be informed as required.			

	A full accounting procedure will be finalised and briefed to all personnel prior to mobilisation.
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