



1ST LINE DEFENCE

Unexploded Ordnance (UXO) Disposal Services

What is UXO Disposal?

1st Line Defence offers the expertise and technology to meet a range of UXO Disposal needs, both on land and in water. We have the capacity to rapidly deploy UXO Specialists wherever required, from remote areas in high-risk conflict zones – to local construction sites for commercial purposes.

The final removal/disposal of an item of explosive ordnance is the most critical part of the UXO risk mitigation process. Any item of UXO, be it live or inert, should always be disposed of safely and with the minimum amount of disruption to all parties involved.

1st Line Defence can coordinate the entire disposal process, from the installation of protective works to supplying specialist equipment and explosives. We employ highly trained/specialised EOD Engineers who undertake the operation with meticulous planning and careful consideration of safety at all times.

UXO Disposal Scenarios

If a high explosive German bomb is found (50kg or more) and it cannot be confirmed as inert, our UXO operatives will liaise directly with military bomb disposal teams. The disposal operation will then be taken over by the authorities, who will attend site and make plans to either render safe and remove the bomb – or where this is not possible – to dispose of the item in situ.

When other items of UXO are encountered such as grenades, mortars and projectiles – disposal by the MoD/police may still be possible, and our EOD Engineers would contact the appropriate authorities. There are occasions when the military will not attend site, and advise that a commercial UXO contractor (such as 1st Line Defence) dispose of the item(s).

This is often the case where multiple items are being found on a regular basis. In these scenarios, 1st Line Defence can provide on-site UXO Disposal solutions for most types of explosive ordnance.

Where items need to be stored prior to disposal, we work with local police forces to obtain the correct explosives licences and provide specialised storage magazines. We employ both 'high order' and 'low order' disposal techniques, depending on the nature of the item of UXO and the results of the Hazard Assessment.



Providing end-to-end UXO risk mitigation solutions

Once a potential item of explosive ordnance has been found on a site, our UXO operatives will examine the object, identify what it is and what hazard it poses.

If it is found to be inert – containing no explosive or hazardous content – then we can safely remove the item from site and arrange for it to be properly disposed of. For example, the device may be a practice or 'drill' round, it may be unfuzed or found to be empty or burned out.

If the suspicious item cannot be identified and confirmed as inert, the item is treated as live and dangerous – and a hazard assessment is undertaken. The assessment will take into account factors such as the nature and condition of the explosive device, and its location and depth.

At this stage, an assessment will also be made of how the item can be safely disposed of.

UXO Disposal Services

High order

This disposal technique utilises plastic explosives and a remote firing system to produce a controlled detonation and explosion.

This generally occurs in a specially constructed demolitions area, and with appropriate protective works and safety distances/cordons – to protect infrastructure in the surrounding area and for the safety of personnel working on-site.

- The traditional method for disposing of UXO is to place a counter charge next to the explosive and detonate it – known as 'high order' disposal – which is used when items of UXO may be unstable making them unsuitable to be safely moved.

Low order

This disposal technique causes the explosive inside the device to burn out without detonating.

A common method used by 1st Line Defence is to deploy a thermite lance, which is a focused flame with a temperature of more than 2000oC that burns through the targeted ordnance – igniting the explosives within and allowing them to deflagrate.

- Low order also offers other benefits over high order, including lower unit costs and the ability to carry out multiple disposals simultaneously.

