

Usage Case: Rail Depot Contamination

Client: Southern based rail operator

Programme of Works: December 2018 – February 2019

Cost of Project: £1,200,000

Asbestos Consultancy Role: Full asbestos consultancy and project management



Background

A specialist contractor was instructed to extend the platforms at a railway depot in the South of England to accommodate new longer train stock that was introduced in 2020. As part of the construction works the existing platforms were dug out to allow for the laying of new longer foundations. Following the first stage of works one of the train operator employees identified a suspect material on the floor of the depot, in line with the sites asbestos management procedures an asbestos consultancy were contacted and attended site within hours to collect and analyse the material.

Temporary Closure of the Depot

Upon arrival at site to collect the sample of the potentially asbestos containing material the surveyor identified that additional suspect material was spread across the entirety of the site. Having identified potentially widespread asbestos contamination the site was closed down to prevent further spread. All trains were held, operatives sent home and all access prohibited until the level of contamination was fully understood. The first samples taken were confirmed as being Asbestos Insulation Board (AIB).

Widespread Contamination

In the following 48 hours further sampling and a site wide survey identified that phase one of the works had unknowingly disturbed the AIB. During Phase One the contractor had damaged the AIB whilst digging out the existing platforms, surveys had previously been completed but not identified the asbestos within the platforms as they were assumed to be solid concrete where in actual fact AIB had been used as both packers and shuttering.

The asbestos consultancy were then requested to develop an asbestos removals specification and to take on the role of principal designer in compliance with CDM 2015 regulations and Control of Asbestos Regulations 2012. Following the client's approval to proceed, three approved and audited licensed asbestos removal contractors (LARC's) were invited tender for the asbestos remediation. Site visits were completed with each LARC both on an individual and collective basis; this enabled cohesive discussions and the collaborative review of potential resolutions to some of the challenging elements of asbestos removal.

The Complexities of the Project

Although the asbestos was contained to within the platforms prior to phase one of the works the unplanned nature of the asbestos release meant the asbestos had spread across large areas within the depot. There were three tracks contained within the depot known as roads 18, 19 and 20 the platforms ran parallel and as such asbestos had spread across each road. Unfortunately at the time of exposure road rail vehicles (RRV's) were present on road 20; this meant the environmental cleaning of not only the roads but also the RRV's.

Scaffolding was erected individually around each road with the enclosures being worked upon sequentially due to access restrictions. Due to the nature of the site, upon completion of each road the enclosure needed to successfully pass a 4 stage clearance and be dismantled to allow access to the next. The process on each road was to remove all visually identifiable AIB debris, expose and raise the concrete planks which made up the platform to remove any remaining AIB, excavate to the required level to enable the foundations to be laid and then complete an environmental clean.

Analytical Attendance

The project required analytical attendance 7 days per week for 24 hours per day. Analysts worked 8 hour shifts in a 3 analyst rotation, all forms of air monitoring were undertaken and this included but was not limited to 4 stage clearances, minor works, perimeter and personal monitoring.

How would the ALERT Pro1000 have benefitted the client?

Health & Safety

The early identification of airborne asbestos would have prevented widespread contamination. Had the airborne asbestos been identified when first unknowingly disturbed the asbestos could have been contained reducing the likelihood of exposure.

It is unknown as to how many people were exposed to the asbestos once airborne. The Pro1000 offers the ability through its timestamped data to identify the time asbestos was exposed and in turn the specific activity that lead to the exposure.

Commercial

The total cost of the project was increased by in excess of £1,200,000. The majority of this cost was based on the enforced management of widespread, uncontrolled contamination. Had the asbestos been contained, the cost would have been drastically reduced. It is estimated that the planned, controlled removals of the asbestos prior to disturbance would have cost £250,000. This does not take into account the additional costs to the client including the closure of the depot and lack of access to the RRV's.