



Asbestos Risk Management Method Statement

Polygon Street, Manchester

April 2023

GGC Polygon Manchester Ltd

Reference: 230705.001

1. Background

On 14th July 2014, REL were commissioned to produce a Phase II Geo-Environmental Site Investigation and Risk Assessment for the site at Polygon Street, Manchester, M12 6AP (**the property**) (Grid Reference: 385280, 397030).

The assessment was required to determine with greater certainty the presence, or otherwise, of contamination within soils and groundwaters underlying the site.

Following completion of the investigation, a report (Reference: 140716.R.002), dated: November 2014), was issued to the Local Authority for regulatory review.

Following completion of this review, REL understand that the Local Authority determined that during redevelopment works, a watching brief would be required to allow for the early identification of potential unforeseen contamination, including asbestos containing/deleterious materials and thereby allow for appropriate measures to address associated risks to be implemented.

REL understand that the site has since been redeveloped and the contractor which undertook the earthworks aspect of the project has since gone into administration and has provided no evidence that any such watching brief has been undertaken. As such, when considering the site has now been developed, it is not possible to confirm if any deleterious materials had been identified during groundworks and what, if any, measures were adopted to mitigate any risk.

Therefore, it is considered necessary, as a precaution, to assume the presence of potentially deleterious materials beneath the site to allow for the worst-case scenario to be used during the production of site risk assessments.

Following completion of the above-referenced report, the only contaminant of concern identified related to potential asbestos containing materials, with soil samples found to contain Chrysotile and Amosite asbestos fibres.

As such, REL has now been commissioned by Paul Butler Associates on behalf of GGC Polygon Manchester Ltd (**the client**) on 6 July 2023 to produce this *Asbestos Risk Management Method Statement*, which has been written to provide precautionary guidance to address residual uncertainties regarding the potential presence of asbestos/other deleterious materials in soils beneath the site, following redevelopment of the site.

The works for which this document have been written exclude licenced asbestos works. Should licenced asbestos works be required, advice should be sought from a suitably qualified asbestos consultant, although when considering the site status, it is considered unlikely any such works would apply.

2. Contaminants of Concern Identified (Asbestos)

Asbestos is a natural, carcinogenic mineral and is the single greatest cause of work-related deaths in the UK (Health and Safety Executive)

Asbestos can be divided into three most commonly used types, these being:-

- Chrysotile.
- Crocidolite.
- Amosite.

Chrysotile is a type of asbestos within the serpentine fibre form, whilst Crocidolite and Amosite fall within the amphibole fibre form.

Serpentine asbestos fibres can be described as wavy or curly, hence its name. Amphibole asbestos comprise straight, stiff, needle-like fibres which are considered to make these fibres more dangerous than serpentine fibres, as the fibres are easier to inhale.

Chrysotile is typically more frequently encountered as it was used more commonly in the UK, and due to the nature of the fibre type, it tends to be considered less hazardous.

Amosite is considered more hazardous due to its fibre type, although tended to be used less frequently.

As well as the fibre type, the risk from asbestos is heavily influenced by the material in which the asbestos is contained. Asbestos fibres which are loosely bound i.e. asbestos pipe lagging, are far more easily released into the air, whereas asbestos fibres which are contained within a matrix i.e. cement, are less likely to become airborne.

Please refer to the following link for further details relating to the types of material that can contain asbestos: <https://www.hse.gov.uk/asbestos/common-materials.htm>.

Additionally, the risk is also dependent upon the ease by which asbestos containing materials can be disturbed. For example, loose asbestos fibres, buried at a depth of 2m, may represent a lower risk than asbestos fibres bound within a cement matrix if they are present at the surface, as people are more likely to come into contact with asbestos at the surface during normal activities than when buried at depth.

As such, the risk is also determined by the nature of any proposed development, and how those works may increase the likelihood that asbestos is exposed and fibres become airborne.

When asbestos fibres become airborne, they are more easily inhaled and inhaling asbestos can cause the following fatal and serious diseases:

- Mesothelioma – a cancer which affects the lining of the lungs (pleura) and the lining surrounding the lower digestive tract (peritoneum).
- Asbestos-related lung cancer.
- Asbestosis.
- Pleural thickening.

3. Principal Pollutant Pathway

With the above in mind, the risks associated with the potential contaminant of concern (asbestos), relate to the following principal pollutant pathway:-

- Soil disturbance, resulting in the generation of airborne asbestos fibres, followed by inhalation.

The above information has been taken into consideration when identifying potential risks in the following sections.

4. Principal Receptors and Risk Driver

The following section provides details of the principal receptors pertinent to this method statement.

Current Site Users

The subject site comprises a residential apartment property with associated areas of external hardstanding. The site has a central management system requiring structural/maintenance works to be approved prior to commencement.

When considering the nature of the site, including the extensive coverage of hardstanding and the absence of evidence to suggest the presence of significant volatile organic impact, a viable pollutant linkage has not been identified for normal site use as the ability of asbestos fibres to become airborne is restricted by hardstanding cover.

A localised and limited risk to site users may arise should groundworks be required which have the potential to cause the generation of airborne asbestos fibres, although it is considered that any such risk would be negligible and could be adequately addressed by measures proposed in the following sections.

Groundworks/Maintenance Workers

As REL are unable to consider all future potential works, we have provided a general discussion on the means by which risk during typical groundworks may be negated.

However, as detailed within Section 2, workers who excavate into the ground may be exposed more directly to the soils containing contamination which in turn could result in the generation of airborne asbestos fibres which could then be inhaled.

As such, REL have outlined measures in Section 5 below which could be adopted by groundworks contractors during the planning and operational phases of any future project to reduce risks to acceptable levels.

5. Risk Mitigation

As detailed previously, the risks associated with asbestos fibres relate to the Inhalation of airborne asbestos fibres. Therefore, REL consider the following risk control actions are appropriate during groundworks to mitigate against the risk of this exposure pathway.

Communicating Risk

At the pre-commencement stage of any future works which involve the breaking out of hardstanding and/or excavations, information pertaining to the potential contaminants which may be encountered, their exposure characteristics, and locations at which any such contaminants of concern may be present must be made available for review.

The information provided to contractors can then be used to develop a suitable and sufficient risk assessment and to identify what mitigatory measures may be required.

As such, the REL Phase II Geo-Environmental Site Investigation and Risk Assessment report (Reference: 140716.R.002, dated: November 2014), this Asbestos Risk Management Method Statement report, and any other pertinent information must be held on file at the subject site and be provided to potential contractors during the planning stage of any works.

Contractors must then ensure their workforce or sub-contractors are made aware of the potential asbestos contamination. This may require formal site inductions to be completed and/or site awareness briefings.

REL would recommend evidence of any communication relating to such works is collected and held on file for further reference.

Training and Supervision

Workers involved in groundworks should be provided with training and supervision appropriate to the specific task and risks identified.

It is considered that all groundworkers would benefit from asbestos awareness training as a minimum to allow workers to identify potential asbestos containing materials at an early stage, thereby allowing measures to be adopted to protect human health and comply with legal requirements.

Pre-commencement Soil Analysis

Prior to groundworks commencing, in order to better determine the presence or otherwise of asbestos contamination within site soils, a specialist contaminated land consultancy could be appointed to obtain soil samples in the proposed work area to a depth consistent with the groundworks proposed.

The soil samples collected would be submitted to a laboratory for asbestos screening with the results used to identify project specific risk management measures. The requirement for such sampling would depend on the level of potential exposure workers may encounter during works.

Exposure Management

The risks from asbestos arise primarily when asbestos fibres are released into the air allowing them to be inhaled.

Therefore, in order to control the risk, it would be necessary to either:-

- Prevent asbestos becoming airborne.
- Prevent Inhalation.

Prevent Asbestos Becoming Airborne

In order to prevent asbestos becoming airborne, ground disturbance should be kept to a minimum and/or avoided where possible.

Works could be undertaken during periods of low winds or during periods of rainfall or after a period of prolonged rainfall during which soil moisture content may have increased as wet soils tend to hold onto asbestos fibres more firmly than dry soils.

Where this is not possible, a water spray could be used during groundworks to suppress fibre release from soils.

Where soils would need to be left exposed at the surface or within excavations for a period of time. The continued spraying of the exposed soils and/or the use of impermeable membranes to cover the soil may be required.

During any future groundworks, it would be advisable that a watching brief is maintained by the contractor undertaking the works to allow for the identification of potential asbestos containing/deleterious materials.

The watching brief should be undertaken by a person who has undertaken asbestos awareness training as a minimum and it is advisable that all individuals who undertake groundworks are also provided with asbestos awareness training.

In the event evidence of potential asbestos/deleterious materials is noted, works should cease and advice be sought from a suitably qualified consultant.

Prevent Inhalation

Where the generation of airborne fibres cannot be completely discounted, workers must be provided with and make use of appropriate PPE.

Depending on the nature of works and degree of contact that individual workers may experience with site soils, differing levels of PPE may be required.

➤ Respirators/Face Masks

For individuals supervising works but not directly involved in groundworks, the use of a personal respirator may be appropriate. Any respirator must be FFP3 rated.

For short periods of work, a disposable mask to standards EN 149 (type FFP3) or EN 1827 (type FMP3) may be appropriate, or for longer periods or where greater exposure may occur, a more robust option would be a re-usable half mask respirator (to standard EN 140) could be used.

The effectiveness of face masks depends on the closeness of the seal with the skin. As such, anything which compromises the seal, such as facial hair, must be considered. Full hood respirators may be an option for individuals with beards.

The user may need to undergo a face fit test to ensure the mask provides the necessary level of protection. Contact the supplier for further details. Should works extend over a longer period of time, consideration must also be given to changes in face shape i.e., due to weight gain/loss.

Any face mask and/or the associated filters, must be replaced as needed. The frequency that any mask or filter must be replaced will depend heavily on the specific task and the degree by which the mask becomes soiled. As a minimum it masks should be replaced after 40 hours

of use, but when working with soils, the likelihood of the mask becoming soiled increases, which in turn can impact on usability. Therefore, a greater frequency may be appropriate.

When handling any face mask, care must be taken to prevent the inner surface becoming contaminated with dirt or fibres when fitting, removing or storing. Re-usable face masks should be cleaned before and after each use.

The user of any face mask must be physically fit enough to use them, as they can restrict breathing.

REL advise that in order to ensure the most recent guidance and standards are utilised in the selection of PPE for specific tasks, reference should be made to the following HSE guidance <https://www.hse.gov.uk/pubns/guidance/em6.pdf>.

➤ Barriers

For workers who may become into direct contact with soils during groundworks, disposable overalls should be used to prevent personal clothing becoming contaminated by asbestos fibres. Should overalls not be used, any asbestos fibres which attach themselves to clothing could be transferred into vehicles, offices and/or homes thereby exposing others to asbestos fibres.

Disposable overalls – Type 5 (BS EN ISO 13982-1+A1) are suitable. You may need waterproof overalls for outdoor work.

Wear one size too big to help to prevent ripping at the seams. If the cuffs are loose, seal them with tape. Avoid wearing a long-sleeved shirt – these are difficult to cover properly.

Overalls should be worn over boots rather than being tucked in. Where overalls are not used and where lace-less boots cannot be used (Laces can trap asbestos fibres), shoe coverings could be used. However, lace-less boots are preferred to avoid a slip risk when using shoe coverings.

If you wear protective gloves, use single-use disposable gloves. If you must use latex gloves, use only 'low-protein powder-free' gloves.

Weather conditions must be taken into consideration where the use of overalls is proposed. During periods of extreme temperatures, the use of overalls may cause overheating.

Face masks should be kept on until other PPE has been removed to prevent inhalation of fibres released during the removal of overalls etc.

Reference should be made to the following HSE guidance <https://www.hse.gov.uk/pubns/guidance/em6.pdf> for most recent guidance.

➤ Fibre Monitoring

Should larger scale groundworks be proposed and/or significant dust/fibre generation be possible, in addition to the use of spray equipment, it may be prudent to commission the services of a specialist asbestos consultancy to undertake air monitoring during works to ensure no significant airborne fibre generation occurs and /or to allow for further mitigatory measures to be implemented as necessary.

Such monitoring would provide reassurance and protection to groundworkers, site workers and occupants/users of adjacent properties by ensuring potential fibre transmission is identified and prevented.

Any monitoring should be undertaken with reference to HSE publication: HSG248, Asbestos, The Analysts Guide which at the time of writing was at the Second Edition stage and published in May 2021 - <https://www.hse.gov.uk/pubns/books/hsg248.htm>.

➤ Encapsulation

On completion of groundworks, site surfacing would need to be reinstated to prevent future exposure.

➤ Waste Disposal

Waste soil generated during works would need to be removed from site and disposed of by a licenced waste contractor to an approved waste management facility. Waste Classification and Waste Acceptance Criteria Testing would aid with the identification of suitable waste disposal sites.

PPE used during works would need to be double bagged and disposed of as asbestos waste.

Where large volumes of waste is generated, a covered, secured skip may need to be used and waste would need to be clearly labelled as asbestos waste.

By removing waste and/or covering waste prior to removal, the potential for airborne asbestos fibre generation at the site is reduced.

6. Health and Safety Executive Guidance

As information and guidance is subject to change over time as new scientific data becomes available, when planning for any specific works on site which may involve the disturbance of site surfacing or ground, it would be advisable to review guidance provided on the HSE website to ensure best practice is adopted and works are undertaken in accordance with the most recent guidance. The link to the HSE website is provided below:-

<https://www.hse.gov.uk/asbestos/index.htm>

Should links in this document no longer work as the source has been removed or altered, direct consultation with the HSE or a suitably qualified consultant is advised.

We trust the information we have provided to you is to your satisfaction. However, if you require any further information or clarification, please do not hesitate to contact us.

Yours Sincerely,



Andrew Cuthbert BSc (Hons) MSc CEnv MIEMA NEBOSH (Gen Cert H&S)

CL:AIRE Qualified Person (QP475)

Principal Consultant and Lead Engineer

For and on behalf of Roberts Environmental Ltd

Tel: 0191 230 4521

Mobile: 0771 735 5224

Email: andrew@robertsenvironmental.co.uk

Date: 18/07/23