Method Statement for Working on Contaminated Land.

1.0 SCOPE

This procedure applies to all intrusive investigation activities where potentially harmful substances are suspected or known to be present on site. The aim of this method statement is to safeguard the person carrying out the activities, the environment, other persons on the site and what procedures will be followed if contamination is encountered.

2.0 INTRODUCTION

All soils contain a variety of substances which, depending on their concentration, could be harmful. Such substances may be naturally occurring chemical compounds (e.g. derivatives of lead, arsenic etc.), radiological, bacteria, fungal spores and the like, but there is also the likelihood of contamination due to human activity such as oil residues, chemical wastes etc.

Historical information of the site may offer clues as to what can be expected and it is then usual to classify the site as either Green, Yellow or Red. This classification can then be used to determine the necessary precautions.

Various legislation (eg COSHH, Health and Safety at Work Act etc) puts the onus on the Employer/Contractor to undertake work in such a manner that personnel, third parties and the environment are properly protected.

Risks to staff will depend on the nature of the materials present, but typical risks that arise will be one or more of the following:

- Inhalation of noxious fumes/gases
- Burns or skin irritations caused by contact with substances
- Ingestion of toxic materials

The following procedure is intended to safeguard personnel against these risks.

3.0 DEFINITIONS

The site will be classified as Green, Yellow or Red according to the British Drilling Association (BDA) Guidance.

GREEN sites are those which have not been disturbed and will not contain any contamination.

YELLOW sites are those which contain substances that are not sufficiently harmful to potentially cause death, injury or impairment of health that nevertheless require precautions to be taken.

If significant contamination is encountered or suspected from the results of a desk study certain parts of the site may need to be classified as Red. If this is the case separate method statements and working procedures will need to be implemented.

RED sites are those which contain or potentially contain substances that could subject persons, animals or the environment to risk of death, injury or impairment. Typical substances that would classify sites as RED include toxic metal and organic compounds, pharmaceutical and veterinary wastes, phenols, medical products, asbestos, cyanides, hydrocarbons, flammable and explosive materials.
4.0 RESPONSIBILITIES

It is the responsibility of the Project Manager to ensure that suitable and sufficient controls are in place to mitigate the potentially detrimental effects of contaminated land and to prepare and implement measures to prevent any additional or further contamination of land on or adjacent to Dunelm work activities.

It is the responsibility of the Site Engineer to ensure the following procedures and the planned control measures are implemented on site and in particular to re-assess the position when unexpected circumstances are encountered.

5.0 PROCEDURES

5.1 Planning

All locations are deemed to be potentially contaminated until Dunelm receive information detailing otherwise.

Other information may be collated from desk study information or pre-site health and safety information supplied by the client.

5.2 PPE / RPE

Unless otherwise demonstrated by risk assessment the PPE & RPE for Red sites will consist of the following in addition to PPE dictated in the relevant drilling method statement:

- Disposable coverall (eg Tyvek or Microguard)
- Impervious gloves (such as Marigold Industrial Latex or Nitrile)
- Half face mask to be on site if required for Red Zone working areas following an assessment for the EHIP (3M 7500 fitted with ABEK chemical filter and FFP3 particulate filter)
- Eye protection

In exceptional cases where the nature of the contaminant liable to be encountered is excessively aggressive more specialised PPE & RPE (eg full chemical suit, full face mask etc) will be required as detailed in the desk study and separate detailed method statements will be necessary.

5.3 Sampling

All field staff should be informed of the likely contaminants and their harmful properties such that they can carry out their duties in a manner which minimises their exposure. The sampling/ monitoring technique should minimise direct contact with the contaminants.

In addition precautions must be taken to ensure that the sampling process does not lead to the contamination being dispersed or otherwise spread to environmentally sensitive receptors (eg purged water which is contaminated needs to be contained and properly disposed of).

To minimise the potential spread of contaminated material over the site the following procedures will be undertaken:

- Stop work
- Seek advice from Environmental/Ecological specialists
- Implement suitable control measures

5.4 Sample Labelling Transport and Storage

Should contamination be encountered special consideration will be given to sample handling.
5.5 Notification to the Laboratory

Any contaminated samples sent to geotechnical laboratories should be accompanied with the relevant sample despatch sheets and the Laboratory Manager informed well in advance as to the likely nature of the contamination and any suggested precautions (if specific chemical test results are not already available). Geotechnical tests should not be carried out until the chemical analyses have been completed and the risks further evaluated.

All Geotechnical Laboratories should have mechanisms in place to identify and separately store red samples prior to testing and/or disposal.

5.6 Welfare and Other Site Safety Requirements

In the event that contamination is encountered and work must still carry on, this will be separately assessed and in addition to PPE and RPE, the need for the following should also be considered:

- ropes, cones & barriers for the contaminated work area(s)
- wind direction indicator
- gas monitoring equipment
- rigs to be fitted with spark arrestors
- safety/warning signs
- clean water supply
- emergency eye wash equipment
- changing rooms/washing facilities/decontamination facility

5.7 Ongoing Assessment

Sites or parts of large sites should be reclassified during an investigation if on-site observations / measurements or any laboratory test results that become available indicate this to be appropriate. This may result in the need to amend control measures accordingly.