

RECEIVED

By NCC PLACE at 12:23 pm, Aug 17, 2017

AECOM

Asbestos Management Plan and Method Statement

IGas Energy Plc

Project Reference: Springs Road
Project Number: 60472297

August 2017

Quality information

Prepared by

Victor Ojambati
Environmental Engineer

Checked by

David Evans
Associate Director

Approved by

Ian Campbell
Project Manager

Prepared for:

IGas Energy Plc

Prepared by:

Victor Ojambati
Environmental Engineer
E: victor.ojambati@aecom.com

AECOM Infrastructure & Environment UK Limited
Royal Court
Basil Close
Derbyshire
Chesterfield
S41 7SL
UK

T: +44 (1246) 209221
aecom.com

© 2017 AECOM Infrastructure & Environment UK Limited. All Rights Reserved.

This document has been prepared by AECOM Infrastructure & Environment UK Limited ("AECOM") for sole use of our client (the "Client") in accordance with generally accepted consultancy principles, the budget for fees and the terms of reference agreed between AECOM and the Client. Any information provided by third parties and referred to herein has not been checked or verified by AECOM, unless otherwise expressly stated in the document. No third party may rely upon this document without the prior and express written agreement of AECOM.

Table of Contents

1.	Introduction	5
1.1	Context	5
1.2	Phase 1 (Construction).....	5
1.3	Purpose of the Asbestos Management Plan and Method Statement.....	5
1.4	Reference and Guidance Documents	5
2.	Responsibilities	7
3.	Asbestos Identification and Risk Assessment	8
4.	Asbestos Work Procedures for the Wellsite Construction	11
4.1	General	11
4.2	Plan of Work	11
4.3	Asbestos Management Procedures	11
4.3.1	Asbestos Containing Materials at the Surface	12
4.3.2	Pre-Sampling Prior to Excavation.....	12
4.3.3	Asbestos Containing Materials in Excavated Ground	12
4.4	Transportation and Disposal of Asbestos Waste	13

1. Introduction

1.1 Context

This document relates to the proposed exploratory drilling at land off Springs Road, Misson, DN10 6ET.

Planning Permission ref. 1/15/01498/CDM was granted by Nottinghamshire County Council on 24 May 2017 to develop a hydrocarbon wellsite and drill up to two exploratory hydrocarbon wells by use of a drilling rig and ancillary works.

This document sets out the proposed procedures and practices to be implemented throughout the life of the development to ensure that risks from possible asbestos during excavations are understood and managed, as required by Condition 32 of Planning Permission 1/15/01498/CDM.

Planning condition 32 attached to the planning permission states:

32. No development shall take place until an asbestos method statement has been submitted to, and approved in writing by, the MPA. The method statement shall include details of how all areas of excavation (well cellar and surface water storage tank) will be cleared for the presence of asbestos prior to and during excavation. The development shall be undertaken in accordance with the approved method statement.

This Asbestos Method Statement sets out the procedures for the management of asbestos containing materials that may be encountered during the proposed earthworks associated with the Phase 1 (Construction) works at the site.

1.2 Phase 1 (Construction)

The construction of the wellsite will include excavation works for a well cellar and surface water tank which will involve removal of both Made Ground and underlying natural materials.

1.3 Purpose of the Asbestos Management Plan and Method Statement

This purpose of this document is to set out the following:

- Appraisal of the identified and likely locations of Asbestos Containing Materials (ACM);
- Methods of excavation for the storage tank, cellar and other holes in Made Ground as well as a watching brief for ACM identification;
- Protocol for inspecting arisings, initial visual identification of ACM, follow up verification testing;
- Stockpiling of arisings: protocol, coverage and safeguarding; and
- Protocol for ACM removal where necessary.

1.4 Reference and Guidance Documents

This document has been prepared in accordance with the provisions of the Control of Asbestos Regulations (CAR) 2012 and the guidance provided in the CL:AIRE (2016), *Control of Asbestos Regulations 2012 - Interpretation for Managing and Working with Asbestos in Soil and Construction and Demolition Materials: Industry guidance*. Other documents consulted are listed below

- Construction Design Management Regulations 2007.
- Control of Hazardous Waste Regulations 2009.
- Duty of Care Regulations 1991.
- Environmental Protection Act 1990.
- Health and Safety at Work Act 1974.
- HSE (2012), Asbestos Essentials – Advice on non-licensed work with asbestos.

- HSE (2012), Asbestos: The licensed Contractors' guide HSG247.
- HSE (2013) Managing and working with asbestos. Control of Asbestos Regulations 2012 – Approved code of practice and guidance.
- HSE (2017) Asbestos health and safety. www.hse.gov.uk/asbestos/index.htm (last assessed on 03/08/2017).
- Island Gas Limited (2015), Planning Application to Develop a Hydrocarbon Well site and Drill up to Two Exploratory Wells for a Temporary Period of up to Three Years. Springs Road, Misson, DN10 6ET. Volume 3 Environmental Statement: Main Text and Appendices.
- The Hazardous Waste (England and Wales) Regulations 2005.

2. Responsibilities

The duty to manage asbestos is contained in Regulation 4 of the Control of Asbestos Regulations (CAR) 2012. The dutyholder is regarded as the owner of the non-domestic premises or the person or organisation that has clear responsibility for the maintenance or repair of non-domestic premises.

The dutyholder is responsible for ensuring that appropriate preventive and control measures are implemented and maintained. Employees and workers must also be committed to working in accordance with the policies and measures provided by the dutyholder.

The CAR 2012 requires the dutyholder to:

- take reasonable steps to find out if there are materials containing asbestos in non-domestic premises, and if so, its amount, where it is and what condition it is in
- presume materials contain asbestos unless there is strong evidence that they do not
- make, and keep up-to-date, a record of the location and condition of the asbestos- containing materials - or materials which are presumed to contain asbestos
- assess the risk of anyone being exposed to fibres from the materials identified
- prepare a plan that sets out in detail how the risks from these materials will be managed
- take the necessary steps to put the plan into action
- periodically review and monitor the plan and the arrangements to act on it so that the plan remains relevant and up-to-date
- provide information on the location and condition of the materials to anyone who is liable to work on or disturb them

All site workers and personnel have responsibility to:

- take reasonable care for their own health and safety;
- take reasonable care that their acts or omissions do not adversely affect the health and safety of other persons;
- comply with instructions given for their own safety and health and that of others generally;
- comply with all work procedures and instructions related to asbestos;
- co-operate with supervisors and managers in their fulfilment of legislative obligations;
- report immediately to their supervisor any perceived safety or health risk;
- wear and maintain in good order all protective clothing and apparatus provided by the manager or supervisor for personal protection and maintain same in good order; and
- ensure all equipment is in good working order.

Visitors at the site have a responsibility in relation to asbestos to:

- comply with instructions given for their own safety and health and that of others generally;
- comply with all work procedures and instructions related to asbestos;
- co-operate with the dutyholder or Site Manager in their fulfilment of legislative obligations;
- take care of their safety and health and that of others; and
- report immediately to the Site Manager any perceived safety or health risk.

3. Asbestos Identification and Risk Assessment

The risk to human health from asbestos is related to the inhalation of asbestos fibres. Therefore, any asbestos cement fragments or friable material present a negligible risk if buried and undisturbed. Friable asbestos may generate elevated airborne fibre levels if lying on the surface or disturbed and cement fragments may also do so if they are broken up and pulverised such as may occur during planned excavation works of Made Ground at the site.

A site inspection of the site undertaken by an AECOM Field Engineer in 2015 (details in the Technical Appendix H of the ES) identified a pile of cement pipes outside the western boundary of the wellsite, but within the application boundary. White 'fibres' were visible in the broken end of the pipes, suspected to potentially be asbestos-containing material. No sample was obtained from the pipe for asbestos identification and quantification.

An intrusive investigation was also undertaken at the site in 2015 (details in Appendix H), with samples obtained from trial pits for laboratory analysis. Of the trial pits which encountered Made Ground one (TP-E5, 0.3m bgl) returned Asbestos (chrysotile [white asbestos] fibres) from the sample of Made Ground.

TP-E5 is located circa 30m from the location of the cement pipes identified during the site inspection. The concentration of asbestos in the Made Ground at this location is unknown as no quantification was undertaken. No asbestos was identified in samples from other Trial Pits where similar Made Ground was encountered, suggesting that the distribution of asbestos is unlikely to be widespread.

Based on the available information from the ground investigation, it is considered that the works to be undertaken at the site is considered 'non-licensed' work. However, the type and quantity of ACM identified during the works will confirm if the works will be notifiable.

The CL:AIRE (2016) guidance document provides guidance to help with decision making as to whether the a license is required and if the works is notifiable. This is summarised in the HSE Decision Flow Chart shown in Chart 1.

All excavation works into Made Ground at the site will be covered by Control of Asbestos Regulations (CAR) 2012 relevant Health and Safety guidance. In addition, workers involved with excavation and clearing must be trained and competent, and appropriate measures must be used to eliminate asbestos exposure or reduce it to as low as is reasonably practicable. Mitigation measures include:

- construction/maintenance workers to wear EN149 type FFP3 disposable Respiratory Protective Equipment (RPE);
- manual/localised dust suppression measures are implemented; and,
- localised and basic decontamination facilities are provided.

The HSE guidance document 'Asbestos Essentials – Advice on non-licensed work with asbestos' and the CL:AIRE (2016) Industry Guidance document provide guidance to help with decision making as to whether the a license is required or if the work is notifiable. This is summarised in the CL:AIRE (2016) Decision Flow Chart shown in Chart 1.

Based on the available information from the ground investigation, it is considered that the works to be undertaken at the site is considered 'non-licensed' work.

The Joint Industry Working Group (JIWG) 'Asbestos in Soil and Construction & Demolition Materials' has developed a Decision Support Tool (DST) for CAR 2012 Work Categories. AECOM has used the DST for the two scenarios anticipated at the site. The first scenario relates to the pipes encountered during the site walkover in 2015 and their removal. The second scenario relates to the asbestos encountered in Made Ground at one location in 2015. The work sheets for these two scenarios are presented in Appendix B. Where site data is not available a conservative assumption has been used.

The results of the DST are as follows for each scenario:

Scenario	Hazard	Exposure	Combined hazard and exposure
Scenario 1	Low (8)	Low (10)	Low (18)
Scenario 2	Medium (11)	Low (9)	Low (20)

Table 1: Decision Support Tool Ranking

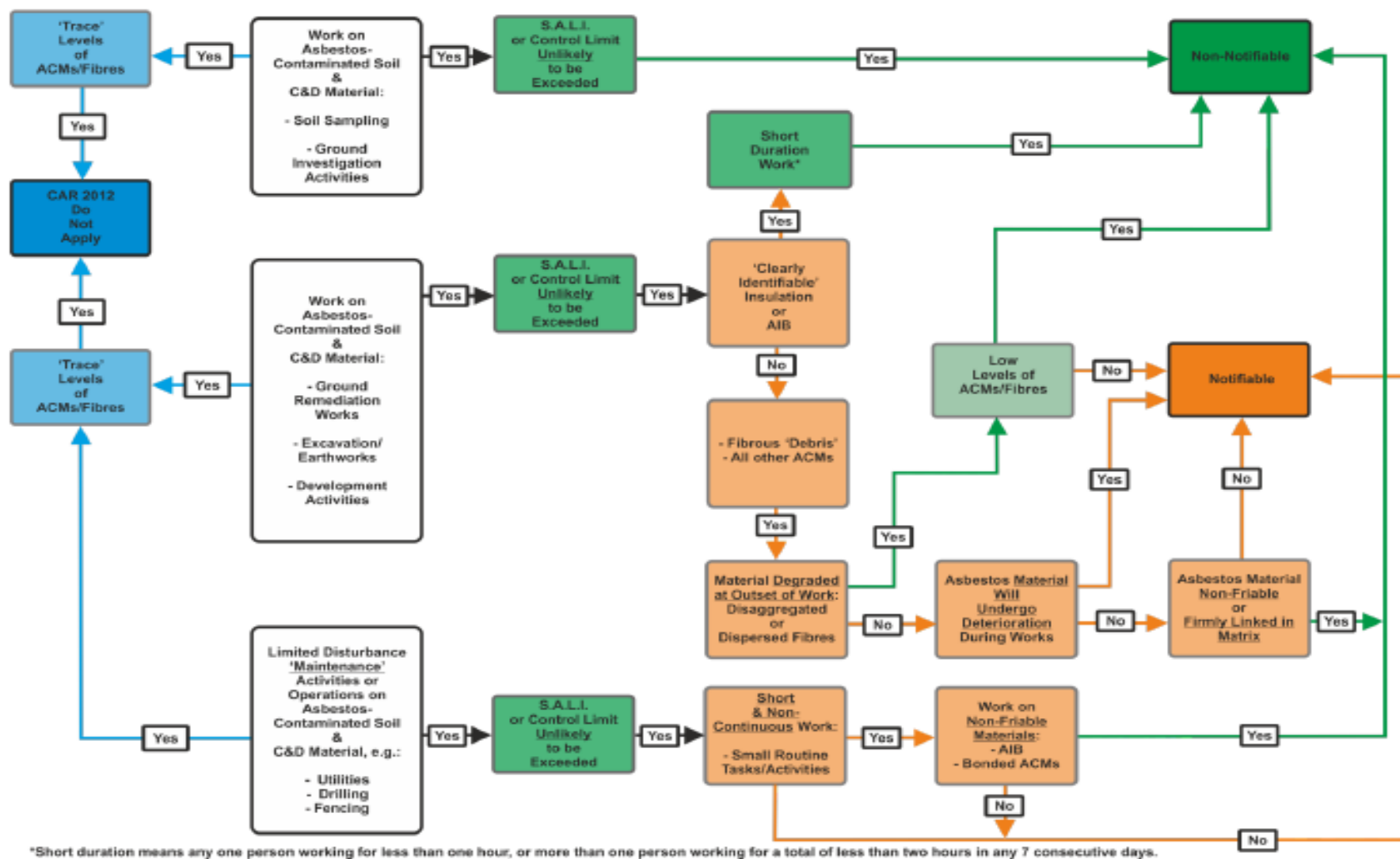
For both scenarios the risk assessment output is as follows:

Probable Licensing Statues	Non-licensed Work
Respiratory Protective Equipment	EN149 FFP3 Disposable
Dust Suppression	Manual/localised dust suppression
Hygiene/Decontamination	Localised and basic personal decontamination facilities

Table 2: Risk Assessment Output

It is noted that although the work is non-licensed it is still covered by the Control of Asbestos Regulations (CAR) 2012 and HSE guidance. In addition, workers must be trained and competent, and appropriate measures must be used to eliminate asbestos exposure or reduce it to as low as is reasonably practicable.

Chart 1: Non-Licensed Works Decision Flowchart



Source: CL:AIRE (2016) Control of Asbestos Regulations 2012 - Interpretation for Managing and Working with Asbestos in Soil and Construction and Demolition Materials:

4. Asbestos Work Procedures for the Wellsite Construction

4.1 General

This section has been prepared in accordance to the CAR 2012 and it describes the procedures and possible methodologies to be used by contractors and construction workers during the excavation, handling and disposal or placement of potential asbestos containing materials identified during the Phase 1 works at the wellsite.

Although the planned works is considered not to require asbestos licence, precautions should be taken during the works to prevent health impacts should ACMs be encountered during the works. The contractor must be informed of the potential for ACM to be present and must develop their own Site-specific Risk Assessment and Method Statement in addition to this Management Plan, which must be adhered to by all site personnel.

Through the site induction process, all site personnel are to be educated regarding the potential risks associated with asbestos containing materials which may be encountered on the surface or in excavated Made Ground. The information to be provided during the induction sessions should include identification of friable and non-friable asbestos (examples to be provided), awareness of hazard associated with asbestos, emergency procedures and proper storage and disposal of asbestos material.

All site personnel are to be made aware of the procedures (see Chart 2) that should be adhered to should suspected asbestos containing materials be identified at the site.

4.2 Plan of Work

Regulation 7 of the CAR 2012 requires that a written Plan of Work be prepared prior to the commencement of works at the site. The Plan of Work should contain the information regarding:

- the nature and probable duration of the work;
- the number of people involved in the work;
- the work address, location and site layout with a description of where and nature of ACM that may be encountered.
- the methods to be used to prevent or reduce exposure to asbestos, e.g. prevention and control measures and arrangements for the handling and disposal of asbestos waste;
- the type of equipment, including PPE and RPE, used for:
 - protecting and decontaminating those carrying out the work;
 - protecting other people present at or near the worksite.

4.3 Asbestos Management Procedures

Regulation 24 of the CAR 2012 requires that any detected raw asbestos and asbestos waste is properly packaged, labelled, stored and transported.

Prior to the commencement of excavation of Made Ground, the Made Ground should be damped down using water to prevent the release of potentially contaminated air-borne dust. During excavation and loading activities, dust emissions from the excavation face and trucks being loaded are to be suppressed at all times using water spray or other suitable dust suppression technique.

Excavator operator and truck drivers are to work in an enclosed cabin with movements outside of the cabin to be reduced to a minimum. All site personnel in the work area are to wear appropriate personal protective equipment (PPE)).

4.3.1 Asbestos Containing Materials at the Surface

Where limited amount of ACMs (i.e. asbestos fragments / sheets or any fibrous asbestos) are identified or suspected at the surface of the site, precautions to prevent fibre release should be taken. The ACMs should be securely sealed and double-bagged in suitable, labelled bags or wrapping. The bags used must be designed to ensure that no asbestos fibres can be released during handling and transport. Stronger packages will be required if the waste contains sharp metal fragments or materials that could puncture the bags.

It is recommended that large items of rigid ACM such as sheets of asbestos cement should not be broken up or cut down for disposal in bags. The intact rigid waste should be double wrapped in suitable polythene sheeting (1000 gauge) or other suitable material and labelled accordingly.

If the asbestos waste is not disposed of immediately, the sealed bags or wrapped packages (for large rigid ACMs) should be locked in a suitable and clearly marked storage area, i.e. a lockable skip or freight container.

4.3.2 Pre-Sampling Prior to Excavation

Where possible, prior to excavation, representative samples from areas of planned excavation works within Made Ground during Phase 1 (construction) shall be collected. The representative samples of the Made Ground should be obtained by a competent person and sent to the laboratory for asbestos identification and quantification. For Made Ground a representative sample is one per 100 m³ of excavated material (or a minimum of 3 from any one source area).

In the unlikely event of there being large volumes of excavated waste contaminated by asbestos, it may not be practicable to place material into plastic bags or bulk packaging. Consideration may be given to the placement of material directly into an appropriate pre-lined bulk container such as a haulage vehicle or a roll-on, roll-off skip. Procedures should be in place to minimise the spread of asbestos during the loading operation and to prevent spread from the load while it is being transported on the road. Consideration should also be given to how unlined bulk containers are cleaned to ensure that the spread of asbestos is minimised.

4.3.3 Asbestos Containing Materials in Excavated Ground

Excavation works within Made Ground during Phase 1 (construction) where pre-sampling has not occurred shall be undertaken under a watching brief and supervision of a suitably 'competent person' to visually check for the presence of potential ACM. A competent person should possess adequate qualifications, such as suitable training and sufficient knowledge, experience and skill for the safe performance of the proposed works.

Made Ground encountered during the excavation should be quarantined at first and stored with suitable sheets or geofabric covering pending asbestos assessments. Representative samples of the Made Ground should be obtained by a competent person and sent to the laboratory for asbestos identification and quantification (if asbestos is identified). For Made Ground a representative sample is one per 100 m³ of excavated material (or a minimum of 3 samples from any one source area).

The procedure to be followed in the event of asbestos being detected in the Made Ground is shown in Chart 2. The primary response should be to avoid any further disturbance of the material and prevent access to the stockpile area by the placement of barricades. If the material appears friable or there is a risk of further disturbance from the weather such as high winds the material may be dampened down and covered with heavy gauge polythene or geo-fabric either of which should then be properly secured. Warning signs should be put in place and the discovery should be included in any daily toolbox talks.

In the unlikely event of there being large volumes of excavated waste contaminated by asbestos, it may not be practicable to place material into plastic bags or bulk packaging. Consideration may be given to the placement of material directly into an appropriate pre-lined bulk container such as a haulage vehicle or a roll-on, roll-off skip. Procedures should be in place to minimise the spread of asbestos during the loading operation and to prevent spread from the load while it is being transported on the road. Consideration should also be given to how unlined bulk containers are cleaned to ensure that the spread of asbestos is minimised.

4.4 Transportation and Disposal of Asbestos Waste

The strategy for the contained transport of waste material to landfill should be considered based on the type and volume of waste and agreed with relevant stakeholders, including the client, the regulator (for waste) and the landfill operator. Transportation and disposal will be undertaken by specialist registered contractor in accordance with the specific requirements of the Hazardous Waste (England and Wales) Regulations 2005.

Bags, wrapping or packaging containing asbestos waste should be appropriately labelled and transported directly to a suitably permitted disposal site. Wherever possible and practical, asbestos-contaminated waste should be transported in an enclosed vehicle, skip or freight container. In all circumstances, a suitable receptacle should be used to transport bagged or wrapped asbestos waste to make sure that the bags and packaging cannot become damaged or open up and release asbestos material or asbestos fibres during transit. Similarly, bulk containers into which bulk excavated waste materials are loaded should be capable of being transported in a manner that eliminates the spread of asbestos.

All incidents concerning the uncovering of suspected ACM are to be dealt with and recorded in accordance with the HSE regulations. The record should include:

- Date and time of detection;
- Nature and description of the ACM; and
- Response action taken and date of action.

Once the material has been confirmed as containing asbestos the material may be removed by an Asbestos Removal Contractor or the signs taken down if it is confirmed as non-asbestos

Chart 2: Procedure for Uncovering Suspected Asbestos Materials and Emergencies