

# NNLW ASBESTOS GUIDANCE NOTES



### INTRODUCTION

The National Federation of Demolition Contractors (NFDC) is represented on the British Standards subcommittee which prepares the code of practice for demolition (BS6187) and is, along with the Institute of Demolition Engineers (IDE), the voice of the UK demolition industry.

Founded in 1941 to help spearhead London's post-Blitz clean-up campaign, the NFDC's members are responsible for more than 90% of all demolition that takes place in the UK.

Today, the NFDC is committed to establishing safe working practices for its members and to represent their interests in areas such as training, safety, the environment, waste management, industry guidance, legislative changes and codes of practice.

However, in researching and preparing the information contained within this document the NFDC cannot be held responsible for its subsequent use, nor for any errors or omissions it may contain.

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### 1 SCOPE OF GUIDANCE

#### 1.1 Scope of Guidance

In response to recent changes to the control of asbestos regulations and to explain the additional administrative requirements for NNLW, (notifiable non-licensed work) the NFDC has produced this guide in order to ensure industry best practice by clarifying and where necessary, highlighting generic methods of operation.

In using this guide, it should be recognised that all methods of working with asbestos are subject to a site survey and should be adapted to suit the site in question by preparation of a method statement and risk assessment.

The information contained within this guidance is for work with non-licensed asbestos materials only. Work with licensable asbestos materials is to be carried out by an HSE licensed asbestos removal contractor. For all such work HSE publications L143 and HSG247 should be consulted.

www.hse.gov.uk/pubns/books/l143.htm www.hse.gov.uk/pubns/books/hsg247.htm

A list of licenced asbestos removal contractors can be found here:https://webcommunities.hse.gov.uk/connect.ti/asbestos.licensing/view?objectId=8516

#### 1.1.1 Nature, Applicability and Status Of Guidance

This guide has been prepared by an NFDC working group operating under the direction of the NFDC President. The information contained within this guidance is gathered and compiled from the working experiences of a number of NFDC members whose methodologies and practices are considered to be best practice and common practice in dealing with non-licensed asbestos wastes within normal demolition or refurbishment site environments. No responsibility for any inaccuracies or omissions within this guidance will be accepted by the authors or the NFDC.

This guide document has no legal status although users of this guide can take assurance that the practices and principles of operation, detailed within, do not contravene any statutory regulation or approved Code of Practice as issued by the Health and Safety Executive from time to time.

#### 1.1.2 Limitations of Good Practice Guidance

Clients, consultants and contractors using this guidance must apply a risk based approach to implementing any work practice that may be considered as good or common practice. Standard operating procedures on any site would be expected to follow the recommendations and statutory duties laid down by the workplace regulations, Codes of Practice and the individual organisations' own policies and site rules. The limitations in applying this and any guidance may be determined by a number of facets and constraints, not least: site conditions, site wide elements, local environment, weather, access and egress and topography etc. It is for the person or persons removing, handling and/or disposing of the asbestos waste to ensure that the application of this guidance on their site is both relevant and workable.

#### 1.2 Objectives of the Guidance

The principal objective of this guide is to promote safety and best practice for all persons involved or affected by the works to remove non licensed asbestos products by detailing industry best practice. The information contained within this guide document is unique to the demolition and refurbishment sector and may not have relevance if applied to other industry sectors where operating principles may differ or the types of equipment in use are incompatible or not fit for purpose.



#### 1.3 Responsibilities

This guidance has been prepared to assist specifiers and principal/main contractors in selecting and implementing best practice and safe working methods and to provide them with an understanding of the many variables faced when removing non-licensed asbestos products.

The project client has a fundamental responsibility to ensure that the chosen contractor has all relevant information required to carry out the works in a safe and environmentally responsible manner.

Information to be provided includes:

- Demolition & Refurbishment Asbestos survey carried out by a competent surveyor (UKAS accreditation recommended)
- Hazardous materials survey.
- · Appointment of a Principle Designer
- Planning permission.
- Environmental impact assessment (EIA)
- · Services status, i.e. disconnection/termination or presence of 'live' services etc
- Site wide elements and local environment
- · Relevant statutory and local regulation and legislation as applicable
- · Health & Safety file

The respective roles of the various parties should be clearly understood and the responsibilities and liabilities of all stakeholders should be defined and recorded in the relevant site specific documentation. This guide does not extend or affect any such responsibilities and or liabilities.

#### 1.4 Health & Safety Legislation

- Construction (Design & Management) Regulations 2015 (CDM)
- Control of Asbestos Regulations 2012 (CAR)
- Medical testing
- · Exposure records
- Background monitoring
- Current British Standards
- Health and Safety Procedures

Health and Safety at Work etc Act 1974, CDM, CAR as well as current British Standard Codes of Practice, apply to all aspects of construction and demolition works. CDM aims to improve the management of health and safety throughout construction and demolition projects and place duties upon clients, principle designers and principle contractors.

There is a statutory requirement under the Management of Health & Safety at Work Regulations, in all work places, for risk assessments to be carried out. In addition, CAR requires risk assessments for employees who may be exposed to asbestos. These risk assessments should be read and understood by all persons who are required to carry out work on site. The risk assessment should identify the presence of any significant hazard that may be encountered whilst removing non- licensed asbestos products.

The CAR Regulations 2012 have been prepared in response to an EU instruction requiring changes to the UK implementation of an EU directive.

In practice the changes are fairly limited. They mean that some types of non-licensed work with asbestos now have additional requirements – notification of work, medical surveillance and record keeping. See Section 4 for more information on the changes.

If the work is exempt from the need for a licence, you then need to determine if it is notifiable non-licensed work or non-licensed work. Section 2.3 provides more information.

It must be emphasised that the control measures required for all non-licensed work have not changed.

All operatives undertaking NNLW will be required to undertake a medical examination before April 2015, which will be subject to renewal on a three yearly basis, for as long as the worker continues to do NNLW work. Medical certificates issued by an HSE appointed doctor or medical practitioner must be kept safe for a minimum period of 40 years.

#### 1.5 Background Re-Assurance Monitoring and Personal Monitoring

Reassurance air monitoring may be carried out during the non-licensed works and records maintained on site for the period of the contract works and any extended period where occupation by other trades requires assurance of an evidential nature. Records of all monitoring must be kept safe for a minimum period of 5 years.

#### + NOTES

 Historical and or generic evidence as to likelihood of fibre presence or likely concentrations may be used as a substitute to air monitoring where such evidence is relevant and comparable to the work being carried out and the environment to which it is applied.

Background monitoring is required to establish an indicative level of the type of asbestos, use, condition and method of work in question and the operatives involved. The result can be used both to reassure clients, the public and aid preparation for future similar work. Any high readings can be investigated and the method of work and equipment used reviewed.

Personal monitoring should be undertaken from time to time, in order for the employer and operative undertaking removal works, to fully understand the level of exposure to asbestos fibres and the requirement for adequate control measures to be put into place and maintained.

Exposure records will be required for all operatives undertaking NNLW involving asbestos. These records are to be maintained on file for a period of 40 years.

#### + NOTES

 Employers must ensure that these records are made available to the enforcing authorities and Insurers where there is a claim for personal injury or litigation regarding any project or person arising from direct employment or works undertaken for third parties

Work should be carried out in accordance with BS6187:2011, BS8520:2009 parts 1-3 and L143 Work with materials containing asbestos. Further guidance, i.e. HSG210: Asbestos Essentials should be consulted.

Recommended procedures for Health and Safety are detailed in Section 2.



# 2 MANAGEMENT PROCEDURES

#### 2.1 Training

All non-licensed work must be carried out with a view to eliminating and or reducing airborne asbestos fibres to a level as low as is practically possible. This will entail the use of appropriate control measures both engineered and personal. To enable all operatives to fully understand how, where and when to apply these controls, adequate training must be given by a competent person or persons in the identification, use and maintenance of all relevant equipment and materials. The National Demolition Training Group, together with other recognised training providers, i.e. the Asbestos Removal Contractors Association (ARCA), the United Kingdom Asbestos Training Association (UKATA), the Independent Asbestos Training Providers (IATP) etc carry out such training requirements on behalf of NFDC, NDTG members and non member organisations.

All workers who may be exposed to asbestos should have asbestos awareness training, this includes demolition workers, supervisors, managers, designers and other professionals. The training includes:

- Recognition of asbestos materials, uses, types and locations
- · Health effects, latency periods and contributing factors, i.e. smoking
- Emergency procedures
- How to avoid the risks from asbestos

It is essential that all persons removing, working, handling or accessing asbestos materials undertake training for non-licensable work prior to any related work with asbestos. In addition to asbestos awareness training the course must include detailed information on:

- Statutory Regulations, Codes of Practice and Guidance, the law and you
- Personal protective equipment and respiratory protective equipment
- Plant and equipment
- · Work methods including decontamination, exclusion zones and controlled entry
- Control measures, air monitoring, survey's and record keeping
- · Emergency procedures
- Waste handling and disposal
- · Hazard recognition and secondary work dangers, i.e. confined spaces, work at height etc
- · Supervision and management
- Practical training

Employers and employees must be mindful of the requirements of the Control of Asbestos Regulations 2012 (CAR) and the necessity for refresher training on an annual basis, particularly where work methods, the types of equipment used and the type of work undertaken have changed. This does NOT necessarily mean a formal training course. Employers should conduct training needs analysis to ensure that refresher training is relevant for employees. In addition, supervisors should be given training in management controls to ensure that the requirements of the law and the safety of the work force and staff are fully complied with. Refer to em2 Asbestos Essentials for further information on training: www.hse.gov.uk/asbestos/essentials/index.htm

#### 2.2 Operator Requirements

All operatives engaged in NNLW are required to undergo adequate medical surveillance by a relevant licensed medical practitioner, for example a GP, and to be in possession of a current medical certificate which is renewable on a three year cycle.

All operatives will be required to undertake relevant asbestos training, at regular intervals, to meet the requirements of Regulation 10, CAR 2012.

All operatives will be required to be face fitted with a mask which is adequate for the works to be carried out and is suitable for the facial contours and preference of the wearer. The type and design of mask may also be dictated by the results of the risk assessment.

Use suitable RPE with an Assigned Protection Factor of 20 or more.



#### Suitable types of RPE:

- disposable respirator to standards EN149 (type FFP3) or EN1827 (type FMP3);
- half mask respirator (to standard EN140) with P3 filter; or
- semi-disposable respirator (to EN405) with P3 filter.

The wearer must be clean shaven (ie shaved that morning) when using RPE.

It is recommended that disposable overalls of type 5 standard (BS EN ISO 13982-1) or type 6 (BS EN ISO 13034) be worn by those required to work or access the asbestos work place. The use of cotton overalls should be avoided as these require specialist laundering. Refer to em6 asbestos essentials for further guidance on PPE use.

Exposure records will be required to be recorded and retained for all operatives undertaking NNLW. Note: Exposure times are those periods when the operative is either directly engaged in the removal, handling and disposal of NNLW asbestos materials or is present within the working area when such work is being carried out.

#### 2.3 Site Requirements for Non-Licensed Work

The requirement to notify work with asbestos, to the HSE, Local Authority (LA) or Office of Rail Regulation (ORR), is based on a number of variables. As a general rule, if the asbestos materials or products to be removed are likely to deteriorate during the removal process, notification under NNLW (Notifiable Non-Licensed Work) will apply. Notification is done online via:

#### https://extranet.hse.gov.uk/lfserver/external/asbnnlw1

#### For example:

- Textured coating (artex) applied directly to plasterboard which can be removed whole is not notifiable.
- However, where textured coatings are applied onto concrete requiring scraping to remove or large scale work using gel/steam, the work would need to be notified to HSE (and et al / local authority).
- Similarly, the removal of asbestos cement sheeting by hand operations where each sheet is individually removed whole would not be notifiable.
- Asbestos cement sheets attached to a structure that is sheared down mechanically or already damaged prior
  to commencing work (e.g. substantially degraded and no longer bonded in the materials matrix), will need to be
  similarly notified.



Other examples of NNLW are as shown below (assuming in all cases exposure is sporadic and of low intensity and will not exceed the control limit [0.1 asbestos fibres per cubic centimetre of air (0.1 f/cm3)]- thereby not requiring a licensed contractor):

- Minor, short duration, maintenance work involving asbestos insulation, e.g. repairing minor damage to a small section of pipe insulation where the exterior coating has been broken or damaged;
- Minor removal work involving AIB, when short duration and as part of a refurbishment project, e.g. removing AIB panels fixed with screws following water damage;
- Entry into the roof space above an AIB tiled ceiling, when no decontamination or cleaning has taken place;
- Removal work involving textured decorative coatings where the method of removal requires deterioration of the
  material, e.g. where the material is treated by steam, hydrating gel etc and scraped off the underlying surface, or
  where it is very badly flood-damaged;
- Removal of asbestos paper and cardboard products if not firmly bonded in a matrix;
- Removal of asbestos cement (AC) which is substantially degraded e.g. badly fire-damaged or de-laminated material, or where substantial breakage is unavoidable to achieve removal.

To further assist in deliberating whether the works fall within the NNLW category, see the following webpage which can be viewed on the HSE website.

http://www.hse.gov.uk/asbestos/licensing/asbestos-work-categories.pdf

http://www.hse.gov.uk/pubns/guidance/a0.pdf

See Appendix of this Guidance Note for further supprot identifying work which is notifiable or non-notifiable.

All NNLW must be notified to the HSE, and any relevant Local Authority, prior to any commencement of such work on site. To carry out the notification will require the completion of an online form ASB NNLW1, which can be accessed on the HSE website. It is not possible to notify the works in any other format. There is no minimum notice period and you do not need to wait for permission or clarification of your notification as the database will provide a PDF copy of your notice.

#### **Demolition & Refurbishment Asbestos Survey**

Sites requiring any demolition or refurbishment work, irrespective of where asbestos materials are known or suspected to be present, must be surveyed by a competent person. The level of information obtained from a survey should be of sufficient detail to fully identify the type, location and quantity of asbestos present. This survey should be available for use on site at all times.

#### **Site-Specific Method Statements**

A method statement detailing the following minimum arrangements must be made available:

- Client, location of work, type of asbestos and quantity present
- ii. Supervision details and number of workers
- iii. personal and public protection
- iv. working procedures
- v. time and manning factors
- vi. plant and equipment in use
- vii. decontamination procedures
- viii. waste disposal point and procedures
- ix. air monitoring/control measures and emergency arrangements

The HSE view the method statement as a critical element of management control, and therefore should be a practical and useful document, describing a safe working method for site staff to follow.



#### **Site-Specific Risk Assessments**

Risk Assessment should be thought of as a continuous process as the dynamics of most tasks are likely to change as the work progresses. However, initial Risk Assessments must identify any significant hazards and the control measures required to be in place to reduce or eliminate the risk, prior to the start of work. Specifically, the employer must carry out a suitable assessment to determine the type and condition of any asbestos, the nature and degree to which exposure may occur in the course of the work and the steps that may be taken to reduce that exposure to the lowest level reasonably practicable. The Risk Assessment should also state the appropriate RPE & PPE required to carry out the works safely.

#### **Adequate Decontamination Facilities**

The decontamination facilities as identified within the method statement are to be established prior to works commencing and should be maintained throughout the works. Whilst dedicated decontamination facilities are advisable, segregated welfare facilities may be used if properly managed. On-site washing facilities that are used by others must be cleaned down thoroughly with damp rags or wet wipes prior to hand over.

Personal decontamination is a vital process in the elimination of exposure to asbestos fibres. Inadequate and or incomplete decontamination could result in taking home asbestos fibres on your clothing which may lead to the exposure of family and friends. Refer to em8 asbestos essentials for further guidance on personal decontamination.

- · Clean your boots with damp rags or wet wipes and dispose of the spent rags as asbestos waste.
- Where available, clean your overalls with the brush attachment on a Class H vacuum cleaner. Vacuum off the brush
- Otherwise, use damp rags or wet wipes by a 'patting' action. Rubbing can disturb fibres.
- Where there are two workers, they can help to clean each other.
- Peel off disposable overalls. They should be disposed of 'inside out'. Put them in a suitable asbestos waste bag.
- Bag up reusable overalls for a specialist laundry.
- Finally, remove your disposable respirator and place it in the asbestos waste bag or if using a half mask clean thoroughly with warm soapy water and store away safely for the next use.
- · Tape the asbestos waste bag to seal when closed

In addition to personal decontamination, it is also necessary to ensure that all machinery and equipment used in the asbestos removal process is properly decontaminated prior to its removal from the work place and or subsequent use elsewhere. This is especially important where 'hired' in plant and equipment is in use as asbestos debris may be transferred to other work places, putting unaware people at risk of exposure.

### 3 Work Methods

Hazard, Structural and Environmental surveys, together with Risk Assessments carried out prior to commencement of work, will help to determine the chosen method of working. In many cases, historical data has proven that remote mechanical removal, of asbestos corrugated sheeting etc, can produce fibre release levels considerably lower that the 'control limit' and that this type of operation may, in some circumstances, be regarded as being 'sporadic and of low intensity.' Irrespective of the selected method of removal, all operatives engaged in the works or being present within the working areas shall be required to wear suitable and adequate protective garments and respiratory equipment. As a minimum, it is recommended that a half mask, is worn fitted with the correct filter, along with disposable coveralls with hood and elasticated sleeves and leggings, gloves and non-lace up boots (such as wellingtons).

The site must be fully secured with access to authorised persons only. Where the site has ongoing multiple activities other than asbestos removal, the asbestos removal area should be classed as an exclusion zone and secured accordingly. The site manager/supervisor may consider setting up air monitoring points around the boundary, and especially downwind of the work area to provide reassurance that there is no migration of asbestos fibres to any adjacent area outside the exclusion zone. Authorised persons wishing to access the asbestos areas must have undertaken adequate and suitable training, be face fitted, aware of the risk assessment and method of work and wear the correct PPE/RPE.



#### 3.1 Wet & Drop i.e. Roofing and Side Sheeting

Historical data has proven that wetting and the mechanical reduction of asbestos cement roof and side sheeting is the least likely method to cause significant operative and environmental exposure to asbestos fibres. This method reduces time spent working at height but is often not suitable where the work area is adjacent public areas (eg less than 100 metre public exclusion zone). Where this method is to be employed the following controlled procedures should be implemented:

- The predicted drop zone must be considered as an exclusion and respirator zone which is clearly delineated and
  must be clear of all debris, extrusions and obstructions to facilitate a thorough environmental clean on completion
  of the works.
- The sealing of drains and establishment of a containment system is essential to ensure that there is no possibility of any contamination of water courses or surface water catchments.
- An adequate supply of water must be established, preferably through a holding tank, which (where preferred) will
  enable the introduction of a surfactant solution to damp the AC sheeting being removed. Note: the predominant
  asbestos fibre type in asbestos cement is Chrysotile asbestos which is classed as being 'Hydrophilic' lending itself
  to water penetration. Water sprays alone can be considered as an effective method of dust/fibre control during
  take down, handling and disposal operations.
- Water sprays must be focused on the area of AC sheeting to be removed by way of machine mounted jets and/or ground based equipment.
- Work should be carried out on a bay by bay system, cutting and dropping the sections of roof or side sheeting
  to the ground. Breakage of the sheets should be kept to a minimum, so far as is reasonably practicable. Fallen
  sheets should not be driven over.
- The cleaning up of AC debris, ideally, should be carried out using a rubber tyred loading shovel fitted with a plain edged bucket. Operatives assisting with the clean up works must have non-licensed work training and be trained in the safe working procedures and be equipped with suitable RPE & PPE.
- A routine of decontamination must be established at the end of each shift and before any meal/fatigue/toilet/ smoking breaks.
- The resultant debris must be loaded into a sound, secure (gaps sealed) and lockable container for disposal by a licensed carrier at a registered disposal facility in accordance with the Hazardous Waste Regulations and EA/Sepa protocols.

#### + NOTES

- 1. Open containers may be lined with heavy duty polythene sheeting that can be wrapped and tape sealed on completion of loading.
- It is recommended that where practical fully enclosed containers be employed.
   Where open top containers are in use they should be fully sheeted to contain the
   load. The use of an 'easy sheet' system alone is inadequate as this may not prevent
   the tape undoing and air movement through the waste.
- Background reassurance and personal monitoring should be carried out at key points around the working
  area with results monitored and recorded. Should monitoring identify any increase in fibre levels, which may
  increase operative or public exposure, work should be stopped and the system of work reviewed prior to
  recommencement.

#### 3.2 Cut & Lower

Under certain conditions, i.e. where sheets are in poor condition and damaged etc, there is evidence that operative exposure levels, generated during cut & lower works, may be higher than those generated using the wet & drop method. Where the cut and lower method is to be employed the following controls should be implemented:

- Exclusion and respirator zones must be established around the working area with access restricted to those operatives directly involved in the works.
- Access equipment should be suitable for the task in hand, taking account of the ground and surrounding
  structural conditions. It is recommended that scissor lifts, booms and mobile scaffolding be of sufficient capacity
  (space & safe working load) for 2 operatives to access the underside of the sheeting to be removed with their
  tools, equipment, and an allowance for removed sheeting etc. As an additional precaution a layer of sacrificial
  polythene should be laid on the floor of the access equipment where the sheets are to be stored.
- Background reassurance and personal monitoring should be carried out at key points around the working
  area with results monitored and recorded. Should monitoring identify any increase in fibre levels, which may
  increase operative or public exposure, work should be stopped and the system of work reviewed prior to
  recommencement.
- Working from the tower scaffolding, scissor or boom lift etc, operatives should spray the sheet to be removed with a water based solution. Surfactants may be added to the water.
- Ideally, the holding bolts should be cut using bolt cutters where possible or alternatively, oxy-propane cutting
  where conditions allow. Mechanical cutting using grinders or reciprocating saws is frowned upon due to their
  potential to damage the sheets and release asbestos fibres into the air. AC sheets should be lifted and lowered
  onto the scissor, boom or tower deck for eventual disposal. Cleaning of the supporting steel frame using damp
  rags or wet wipes is advisable prior to continuing the process.

#### + NOTES

- 1. Care should be taken when stacking sheets as the scraping action of sheet on sheet has been identified as creating a significant level of asbestos fibres that are likely to exceed the control limit.
- Overloading of the access equipment must be avoided, to ensure this policy is maintained, the clearance of sheets should be progressive and continuous to a lockable container as soon as is practical. The method statement listing the actual access equipment to be used should spell out the allowable load that can be held on the platform (ie number of sheets of stated size).
- · Operatives must decontaminate at break times and the end of each working shift.
- All equipment must be thoroughly decontaminated prior to removal from site.





#### 3.3 Vinyl Floor Tiles

Historical data has shown that there are no significant levels of exposure from removing or handling vinyl or thermoplastic floor tiles due to the small percentage of asbestos present being locked within a matrix. However, where the results of any survey indicate the presence of asbestos within such products they are to be removed under controlled conditions. Such conditions may be dependent on the working environment, i.e. 'live' office environment or empty/dilapidated premises. Therefore, the setting up of an exclusion/respirator zone, sheeting off and or erection of an air lock, provision of transit routes and use of air extraction units will be dictated by risk assessment and the duty to ensure that any potential of exposure to asbestos fibres is kept to a minimum at all times.

In general, vinyl floor tiles can be safely and efficiently removed by scraping, either by hand held tools or the use of a mechanical floor tile remover. Breaking of the tiles, particularly when brittle, is usually unavoidable and although is not necessarily desirable, does not normally create airborne asbestos fibre levels of a significant nature. Effective engineering controls to reduce such fibre/dust levels generated as a result of this type of removal work are use of damping down, air extraction and ventilation of the work space.

#### + NOTES

1. Over use of damping down may create an unsafe working area where slips and low falls can lead to personal injury.



#### 3.4 Textured Coatings

When considering work to remove textured coatings, containing asbestos, the condition of the material should be taken into account, i.e. is it firmly bonded, will it be damaged by scraping off or has damage already occurred through water ingress or fire etc. If the material will be degraded i.e. damaged during the removal process, the works shall be classed as NNLW. If the coatings have been applied to plasterboard or other decorative boarding and can be removed whole, the requirement to notify may not apply. However, a robust process of risk assessment will assist in the decision making and wherever ambiguity may remain, the works should be notified.

For removal operations the following sequence and controls will generally apply:

- Remove all items of furniture, soft furnishings and debris from within the area prior to commencement of stripping. Where necessary, carry out an environmental clean to remove any localised asbestos debris from within the area
- 2. Create a controlled environment using existing walls and 1000g polythene sealing windows and doors where required, and for large scale removal of textured coating, provide air extraction which will maintain airflow rates of 500 m3/hr.
- 3. Build a two stage air lock at an entrance doorway.
- 4. Wearing a minimum of Cat 3 type 5/6 disposable coveralls and a disposable P3 mask, boots without laces and suitable eye protection.
- 5. Using hand tools remove whole underlying plasterboard with textured coatings still attached. Use dust suppression techniques as appropriate.
- Where coatings are directly applied to the concrete or masonry, a proprietary releasing gel or steam may be applied to free the adhesive. Use hand scrapers to remove the coatings and collect all debris into asbestos waste sacks.
- 7. Bag or wrap waste as it is produced.
- 8. The work area should be progressively cleaned of all accumulated debris.
- 9. Remove all waste to the waste container as part of a controlled 'bag run'.
- Clean the work area using 'H' type vacuum cleaners to ensure all visible traces of dust and debris are removed.
- 11. The Supervisor should carry out a visual inspection of the area prior to removal of the sheeting and after removal to ensure that the area is free from dust and debris.
- 12. On completion of work and visual clearance a written statement should be issued by a competent person (usually the supervisor). The statement should clearly state the site address, extent of work, name of contractor, and details of the area inspected and the signature of the competent person.
- 13. Hand area back to client for further works.

The employer may consider the use of an analyst to carry out personal air sampling and ambient air monitoring during and or on completion of the works. This is particularly useful where no historical evidence of fibre levels during the removal stage is available or where the area is to be reoccupied following removal works.

When carrying out this type of work contractors should be aware that emptying of 'H' – type vacuum cleaners can only be carried out by an asbestos licence holder (full or ancillary). Arrangements should therefore be made with a suitable hire company / licensed asbestos removal contractor to carry out replacement and emptying of this plant as it becomes full / blocked.

### 4 SUMMARY

The Control of Asbestos Regulations 2012 (CAW2012) update earlier legislation to ensure that the UK complies with EU Directives. The NNLW requirements contained within CAW2012 should not significantly affect the manner in which you would normally approach work with asbestos.

The main changes being;

- 1. The requirement to notify HSE where degradation of non-licensable material will occur during removal
- The requirement to carry out medical examinations on a three year basis for NNLW whilst their work with asbestos continues
- 3. The requirement to maintain registers of work detailing nature and duration of work, estimated exposure and medical records for NNLW for 40 years

The following is a summary and an aide memoir to this guidance document:

#### 4.1 Setting Up Safely

- Ensure you have the correct information to hand regarding the type, location, condition and removal method of the asbestos material.
- Check that your method statement and Risk Assessments properly reflect/address the work to be carried out and that you have provided adequate resources to undertake the work safely.
- Ensure that your site and working areas are securely fenced and will remain so throughout the duration of your works.
- · Notify the HSE, and any relevant local authority, of all NNLW prior to commencement of those works on site.
- Employ only trained personnel.
- NNLW personnel must have had suitable training to work with asbestos and must have an asbestos NNLW medical every 3 years.
- Provide adequate and suitable personal protective equipment and respiratory protective as well as a means of safe storage.
- Provide separate welfare facilities and decontamination facilities.
- Ensure that adequate supervision is available and that all control measures are in place together with a monitoring regime that reflects the scope and size of the works and its location.
- Produce a hand over certificate as appropriate.

#### 4.2 Monitoring

Where NNLW is required within the demolition site envelope you may decide that ambient air monitoring is not necessary. However, if the work is being carried out adjacent to or on occupied premises there may be a requirement to provide assurances of cleanliness and non exposure to members of the public, the clients staff or other workers etc, either during or after the work. Ambient or 'background' monitoring is a simple but effective process giving those stakeholders certificated evidence of the site conditions at that time. It is also a check and opportunity to confirm that your control measures are adequate and working effectively.

Personal monitoring is a quick and reliable check on the fibre levels present within the immediate location of the operative and his air intake zone. Excessive fibre readings may indicate that the operative has not taken sufficient care in how he or she handles the asbestos material or it may indicate that the control measures are inadequate and should be reviewed. Personal monitoring together with ambient air sampling within the stripping zone is also useful evidence to build up a database of actual or expected fibre levels for work with the various types of asbestos materials, the method of removal and the locations from where they are removed.

Other forms of monitoring will involve record keeping, visual checks on work processes, the security of the working zone, access and egress arrangements and waste disposal protocols. All work procedures for work with asbestos should be regularly reviewed for their efficiency and effectiveness as well as the implications for the health, safety and welfare of all.

#### 4.3 Decontamination

The necessity for effective decontamination is paramount to ensuring that asbestos debris or fibre is contained and managed within the working zones and is not allowed to migrate to other areas. Improper or inadequate decontamination, particularly to outdoor clothing, can spread the fibre to your home or social venues which in turn can unwittingly expose others. There is conclusive evidence that taking fibres home on your clothing has induced premature mortality in young children.

Therefore; ensure that:

- Decontamination is carried out in a secure, exclusion zone
- There are adequate and suitable decontamination facilities at the work place, being mindful of the number of operatives who may need to use them (14 operators per shower head.
- Water run off from the decontamination process is filtered or directed into or onto a container for capture (waste water contaminated with traces of asbestos may not be discharged to the sewerage system).
- All operatives are familiar with and have received adequate training and instruction in how to decontaminate correctly.
- There are written procedures available for decontamination. These may be used as part of the site induction process, toolbox talks or site rules etc.
- The site manager/supervisor has the means to replenish any plant, tools, equipment, parts, garments or accessories necessary to provide decontamination facilities.

#### 4.4 Waste Disposal

Asbestos is classified as a Hazardous Waste under the Hazardous Waste Regulations in England and Wales (2005) and a Special Waste in Scotland. This also includes any waste which contains asbestos or is contaminated by asbestos. For the purposes of clarification, asbestos waste falling within the NNLW criteria will almost certainly include:

- The asbestos material itself
- Debris containing asbestos
- · Any used damp rags and wet wipes
- Full or part full asbestos waste bags
- Used disposable overalls, gloves, overshoes, disposable masks and towels
- Contaminated water and proprietary filters

#### + NOTES

1. Hepa Filters are those filters to be found within the 'H' type vacuums and negative pressure units (air extraction equipment). The filters have an efficiency of 99.98% but have a limited life through use, therefore they need to be changed and disposed of regularly. This operation must be carried out by an asbestos licensed company using trained asbestos operatives. Opening of the vacuum and the changing of such filters must be undertaken in a full asbestos enclosure under negative pressure and is not an activity that should be carried out by those undertaking NNLW only.

Bagged asbestos waste must be double bagged, labelled and sealed in UN approved packaging. Any site where hazardous waste will be produced has to be registered with the Environment Agency, or the Scottish Environment Protection Agency. All correspondence/notes regarding the disposal of the waste must be labelled with a code selected by the contractor or haulier in the format XXXXXX/YYYY. For example: HOWARD/0001. These codes must run consecutively. Usually, the disposable of asbestos waste by road is subject to the Carriage of Dangerous Goods Regulations (CDG) and will be accompanied by a waste consignment note.

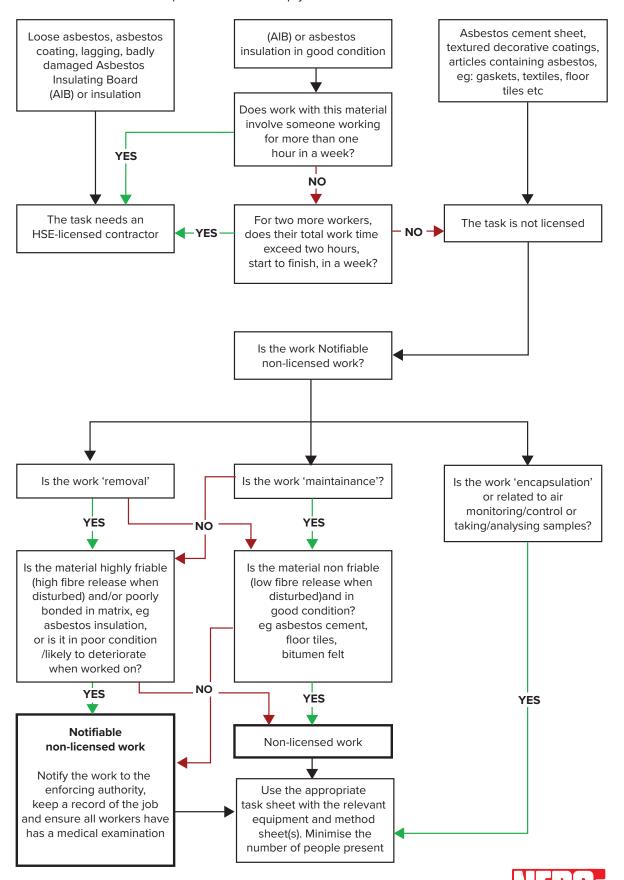
Make sure that when you have loaded the asbestos waste it is both secure and sealed. Care should be taken to ensure that excessively dampened down waste materials cannot leak/seep residues from the container. Small quantities of asbestos waste may be transferred, i.e. from a sealed van, to a larger container for onward disposal to a licensed tipping facility.

### Appendix 1



#### **Decision flow chart**

Use this simple flow chart to help you decide who needs to do the work:



# Appendix 2

#### How to notify Notifiable Non Licensed Work (NNLW):

Notification of NNLW is done online via: https://extranet.hse.gov.uk/lfserver/external/asbnnlw1

#### **Further Guidance**

HSG210 Asbestos essentials www.hse.gov.uk/asbestos/essentials/index.htm MS34 & 31 Guidance for doctors on CAR 2012 www.hse.gov.uk/pubns/ms34.htm www.hse.gov.uk/pubns/ms31.htm

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