

National Federation of Demolition Contractors Voice of the Global Demolition Industry

NON-LICENSED ASBESTOS REMOVAL (Including NNLW) **GUIDANCE NOTES**



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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 requests from NFDC members to explain the additional administrative requirements for non-licensed work, the NFDC 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 an asbestos refurbishment and demolition survey and should be adapted to suit the site in question by preparation of a method statement and risk assessment.

A suitable and sufficient asbestos survey and should be undertaken to all areas of the site to allow preparation of a suitable 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 only to be carried out by HSE licensed asbestos removal contractors. 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.



All risk contracts are a failure in the duty of those who hold responsibilities for a site, particularly the Client, to identify and record all the potential risks to those coming to a site and ensuring they have safe places to work. Those that have a responsibility for the site and the risks have a duty to manage those risks. This failure predominately contravenes the following:

- i. Control of Asbestos Regulations 2012 (CAR-12) Regulation 4 "Duty to manage asbestos in non-domestic premises" and Regulation 5 "Duty to Identify Asbestos containing materials";
- ii. Construction (Design and Management) Regulations 2015 (CDM-15) Regulation 2 Interpretation; Regulation 4 Client duties; Appendix 2 Pre-Construction Information-item 5 (c) "Pre Construction information shall include health and safety hazards of the site, including design and construction hazards how they will be addressed.
- iii. Health and Safety at Work etc Act 1974 (HASAWA-74) section 2 Employers duty to manage risk to his employers; and Section 3 those employees not in his employment.
- If an All risk contract for asbestos removal is identified by HSE then enforcement action will be undertaken on those individuals associated with the failure.

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 surverys leading to an environmental aspect and impact assessment
- · 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 as required under the Construction (Design and Management) Regulations 2015 (CDM-15)



1.4 Health & Safety Legislation

H.A.S.A.W.A-74, CDM-15, CAR-12 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 1999 (MAN REGS-1999), 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-12 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 of a licence, you then need to determine if it is notifiable work or not. The process chart in section 2.3 provides more information.

It must be emphasised that the control measures required for all non-licensed work have not changed and are noted in A.C.O.P L143 Rev2: Working with Materials Containing Asbestos.

All operatives undertaking **Notifiable** Non-Licensed Work have been required to undergo a regular medical examination since April 2015, which will be subject to renewal on a three-yearly basis, for as long as the worker continues to undertake NNLW work. Medical certificates issued by an HSE appointed doctor or medical practitioner must be kept safe for a minimum period of 40-years or until the operative is 80. This is exactly the same as licensed work. If the work is not licensed and not notifiable, then a medical is not required.



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, or until the operative is 80 years old.

+ 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 BS 8520:2009 parts 1-3 and L143 Work with materials containing asbestos. Further guidance, i.e. HSG-210: 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), ACAD etc carry out such training requirements on behalf of NFDC and NDTG members, and also 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 suitable training for the work they are involved with, prior to carrying out the work with asbestos. In addition to the basic asbestos awareness training the course must include detailed information on the following:

- 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, surveys 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 CAR-12 and the necessity for refresher training on an a regular 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 identify specific training needs of their employees so that refresher training is relevant. 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 Asbestos Essentials task sheet EM2 Asbestos Essentials for further information on training: HSE-210 4th Edition 2017 ISBN: 9780717666652



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 for this type of work (ie NNLW).

All operatives will be required to undertake relevant asbestos training, at regular intervals, to meet the requirements of Regulation 10, CAR-12.

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 (APF) of 20 or more.



Suitable types of RPE:

- Disposable respirator to standards EN149 (type FFP3) or EN1827 (type FMP3) only suitable for works of less than 1 hour duration
- Half face or orinasal respirator (to standard EN140) with P3 filter you don't need to change the filter, just remove, clean and re-fit the mask to your face
- Semi-disposable respirator (to EN405) with P3 filter an wear for as long as the battery or power pack lasts

The wearer must be clean shaven (ie shaved that morning) when using RPE. See HSG 53 Section 3 for full details of the range and type of RPE available. https://www.hse.gov.ukpUbns/priced/hsg53.pdf

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 cannot be cleaned sufficiently and would require disposal after use. 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.

+ NOTES

1. 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 Asbestos Insulation Board (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, will depend upon use and current condition with the likelihood of fibre release during removal;
- 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.
- Also could become licensable if the control limit is likely to be exceeded over a 4-hour period
- To assist members and others to make the right decision regarding the work category a particular ACM falls into we have re-produced the HSE decision flow chart from HSG-210 task sheet A0 (see Appendix 1, page 21).

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

All Notifiable Non-Licensed Work 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 (https://extranet.hse.gov.uk/lfserver/external/asbnnlw1), 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 plan of work detailing the following minimum arrangements must be made available:

- i. 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
- Time and manning factors V.
- 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 plan of work 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 sites and 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 preferable, a minimum decontamination procedure as describe in task sheet EM8 is the minimum requirement for NNLW.

Welfare facilities should not be used for any decontamination of operatives or plant and equipment.

If using on site washing facilities that are used by others, for decontamination procedures these facilities must be cleaned down thoroughly with damp rags or tack cloths prior to hand over. Existing washing facilities that are not dedicated to asbestos workers must not be used by other workers until all asbestos decontamination has been completed and the facility has been formally handed back for general use.

Air monitoring would be required to prove that any airborne fibre levels are less that the clearance indicator level of 0.01 f/cm³ upon completion of the task and therefore the welfare facilities are fit for use by others.

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 HSG 210 task sheet EM8 asbestos essentials for further guidance on personal decontamination.

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

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 of the work area using CAR-12 Reg 16, and especially downwind of the work area to provide reassurance that there is no spread of asbestos fibres to any adjacent area outside the exclusion zone.

Authorised persons wishing to access the asbestos area must have undertaken adequate and suitable training, be face fitted, aware of the risk assessment, the plan of work and wear the correct PPE & RPE.





3.1 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 physically 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
 impermeable non-slip sheeting 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 surfactant solution ensuring that areas of joints between sheets are suitable soaked.
- 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 tack cloths 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 fully decontaminate at break times and the end of each working shift.
- All equipment must be thoroughly decontaminated prior to removal from site.



3.2 Wet & Drop i.e. Roofing and Side Sheeting (Notifiable Non-Licensed Work)

Historical data has proven that with sufficient wetting, 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 to public area. 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 cannot be considered as a single 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 cleanup works must have non-licensed work training and be trained in the safe working procedures and be equipped with suitable PPE & RPE. The shovel operator will wear the appropriate PPE including an FPP3 filtered face fitted mask and follow all the correct decontamination as the plant does not have a HEPA filtration unit operating within the cab.
- A routine of decontamination must be established at the end of each shift and before any meal, fatigue, toilet, comfort 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.
- 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.
- All waste water run-off must be contained and disposed of as contaminated wastes. If foul water drains are present then these may be packed with filter material and the water run-off allowed to filter through to the drain.

Discharge of unfiltered water run-off into drains or waterways is strictly prohibited.





3.3 Vinyl Floor Tiles

Historical data has shown that there are very low 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 dependant on the working environment. 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 level 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:

- 1. 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, as per EM3.
- Wearing a minimum of Cat 3 type 5/6 disposable coveralls and a facefitted 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.
- 6. Where coatings are directly applied to the concrete or masonry, a proprietary releasing gel or steam may be applied to free the textured coating. 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 locked asbestos skip.
- 10. 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. Complete the EM10 Statement of Cleanliness after textured coating removal, prior to handing the area back to the client for further works.

The client or employer may consider the use of an analyst to carry out the final visual inspection as wall as carrying 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 on a regular basis.

+ NOTES

 High Efficiency Particulate Arrestor (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.



3.5 Asbestos in Demolition Debris

We cannot deal with every eventuality, and/or site conditions and as such, so we cannot offer recommendations on the methods for specific contracts in this section.

It is intended to be used as a guide to plan the works and not intended to replace a specific risk assessed method statement for any project and does not form a code of practice.

Project specific methodology is required by Reg-7 of the CAR-12, this must be produced and, in some cases, notified to HSE prior to work commencing and should be consider any issues regarding Health Hazards as noted in Clause-10.3.2.2 of BS 6187:2011 Code of Practice for Full and Partial Demolition.

- 1. Refer to the original asbestos demolition survey report for initial clarity of likely asbestos contamination within the site boundaries.
- 2. Call in a competent company to undertake sampling of any suspicious materials and analysis carries out at a UKAS accredited laboratory.
- 3. On receipt of the results, it will clarify if the works must be carried out by trained non-licensed personnel or by a licensed asbestos contractor is required, the report and test results should be interpreted by a competent person or company.
- Reassurance air monitoring and personal monitoring may be carried out during the non-licensed works, with records maintained on site throughout the works.
- 5. Work should be carried out in accordance with BS 6187:2011, BS8520:2009 parts 1-3 and L143 Work with Materials Containing Asbestos. Further guidance, ie HSG-210 should be consulted.
- 6. Go to section 2. Management Procedures (shown elsewhere in this document) and look at requirements 2.1, 2.2 and 2.3 prior to commencing any works involving removal of asbestos debris on site.

+ NOTES

- 1. Other methods that should be considered when choosing the appropriate methodology in dealing with he site specifics should always take into account the control limit for airborne asbestos fibres of 0.1 fibred per cubic centimetre air measured over a 4-hour time weighted average.
- 2. For short term activities the Short Term Exposure Limit of 0.6 fibres per cubic centimetre measure over ten minutes may be used, it the STEL is exceeded then the work or activity cannot be deemed to be Short Term or Sporadic.

Good practice can only be of value where it is applied to be careful planning, and with sufficient attention paid to information, instruction, training and competent supervision to control and monitor the works. All stakeholders should exercise their own knowledge, experience and judgement in all matters when carrying out this type of work, whilst meeting all legal requirements.



4 SUMMARY

The Control of Asbestos Regulations 2012 (CAR-12) update earlier legislation to ensure that the UK complies with EU Directives. The NNLW requirements contained within CAR 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
- 2. 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, or until the operative is 80 years old.

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, LA or ORR of all NNLW prior to commencement of those works on site. Employ only suitably trained and competent personnel.
- 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 Non-Licensed Works are required within the demolition project area you may decide that ambient air monitoring is not practical. 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.

Personal air monitoring should be undertaken for the duration of the task in hand or for up to 4 hours. Sampling for a shorter duration will not reflect the degree of accuracy available using this method of testing.

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 been a principle cause of asbestos related disease in family members who are not exposed to asbestos during their normal activities.

Therefore; ensure that:

- Ensure that thorough decontamination is carried out in a secure, exclusion zone or decontamination unit.
- There are adequate and suitable decontamination facilities at the work place, being mindful of the number of operatives who may need to use them (4 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
- 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
- Cartridge mask filters
- Equipment pre-filters

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 XXXXX/YYYY. For example: DEMO/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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