

HBF – Construction Dust – Exposure surveys

Brief notes from meeting 14.9.15

Attendees

Dave Hickman (Miller), Tony Haigh (Miller), Dave Ford (Redrow), Natalie Lloyd (Redrow), Vernon Cunningham (Strata), Chris Lucas (HSE)

Notes

- HSE intend to complete 30 surveys on wood dust:
 - o 10 construction sites i.e. 5 house building, 5 construction
 - o 20 manufacturing sites

to develop a 'baseline' data set, with a particular reference to CIS69 and the influence of management control on exposures.

- The new approach to surveys will be able to separate 'wood dust' from other dusts (plaster, silica etc.)
- Surveys to consist of two parts occupational hygiene and behavioural factors. Surveys to be completed by HSL laboratories, with no HSE attendance.
- Protocol (attached) developed for the surveys which outlines the approach to be taken. Any
 concerns at the time will be raised locally and if required passed to Chris Lucas for review. If
 necessary information may be passed on to the local HSE principal inspector for follow up.
- Surveys to focus on common tasks that result in wood dust generation:-
 - Stud walling
 - o Flooring/laminate
 - Skirting, architraves and doors
 - o Kitchen Fitting
 - o Cladding
 - o Other??
- Surveys to use lightweight personal dosimetry with filtration and pumps, so they should not interfere with normal work.
- Contractors and their employees will need to be briefed on the 'protocols' if they're participating in the surveys.
- Guidance for Through Examination and Test (TExT) requirements for 'extract' equipment has been issued (attached). The likelihood is that this will become a level of enquiry by HSE inspectors next April. New equipment will not require a TExT for 14 months.
- JSP have produced a mask with reference to a test for 'checking the seal'. This alone will not be accepted by the HSE as fulfilling the requirements for face fit testing.
- HSE enforcement guidance (previously issued in HBF dust pack) indicates an approach (issue
 of PN to individual) an HSE inspector may take for operatives with facial hair. DH has
 provided an update briefing note for directly employed (attached).



- Discussion point on 'removing debris' (sweeping up on plots). Photographic schematic produced (attached) of the suggested 8 clean ups required during a house construction.
 Some suggestions in using rakes to remove large debris, damping down on first few stages and vacuuming at 4th sweep. Power issues identified as a real difficulty in making this work.
- Health surveillance is not going to be considered as part of the surveys.
- Programme of surveys to be agreed with HBF/HSE /HSL to suit. Intention is to focus surveys in Yorkshire/Derbyshire due to location of HSL at Buxton. Suggested allocation to be:
 - o Barratt architraves etc
 - o Miller architraves etc
 - Persimmon stud work (already competed)
 - o Redrow cladding (or kitchens)
 - Strata kitchens
- Surveys to start in October, subject to agreement with an initial report after 4/6 weeks.
- Intention to feedback to HBF members at Feb 2016 meeting.
- Behavioural factors survey will be completed by a 30/40 min telephone survey to the site manager and contractor supervisor, following on from the site visit. It may be possible to obtain an advanced question set.
- HSE will circulate today's presentation.
- Notes of today's meeting to be shared with HBF at October meeting.



RESEARCH INTO WOOD EXPOSURE IN THE CONSTRUCTION INDUSTRY

This information sheet outlines all the scope and proposed involvement of companies in the HSE research into wood exposure in the construction industry. We would like companies to participate in 2 different elements of the work:

- 1. Occupational Hygiene Survey
- 2. Behavioural Factors Survey (Questionnaire)

The surveys will be conducted in the order specified above. A more detailed explanation of what this will involve is outlined below.

Timescales: September – December 2015.

1 OCCUPATIONAL HYGIENE SURVEY

This work aims to quantify wood dust exposures across a range of construction activities. The site visits will be conducted by HSL occupational hygienists. These are not warranted factory inspectors. The visits will be conducted in accordance with current HSE guidance:

http://www.hse.gov.uk/fee-for-intervention/protocol-hsl-visits.pdf

http://www.hse.gov.uk/fee-for-intervention/supplementary-inspector-guidance.pdf

Exposure measurement

A range of workers undertaking tasks involving wood dust will be monitored at each site. This will involve each worker wearing a personal sampling device. These are small, lightweight and unobtrusive, and should not interfere with the workers ability to do their job normally. Setting up the samplers will cause minimal disruption to work activity.

Exposure Controls

Information on the exposure controls will be gathered. This will include:

- On-tool extraction local exhaust ventilation (LEV) type, airflow measurements, smoke/dust lamp assessment, visual assessment of efficacy, testing and maintenance.
- Respiratory protective equipment (RPE) type, use, fit testing, storage and maintenance (where appropriate)
- Methods for cleaning workplaces
- Segregation from exposure sources

Existing HSE control guidance will be used as the benchmark against which your company's controls are assessed. This guidance can be found at:

http://www.hse.gov.uk/construction/healthrisks/hazardous-substances/construction-dust.htm http://www.hse.gov.uk/construction/healthrisks/hazardous-substances/cutting-and-sanding-wood.htm

Other information

Some other basic, relevant information, such as how long people have been doing this work and how many staff are potentially exposed to wood dust, will also be gathered.



Protocol for HSL research visits

Proactive research activity - HSL/HSE interface with volunteer sites

HSE has a continuing business need to conduct a range of research programmes and surveys to maintain the currency of the technical knowledge of our scientists and specialists, as well as informing our guidance and enforcement work. Given the direction provided by *Good Health and Safety, Good for Everyone* and the focus of our proactive efforts on higher risk sectors and activities, it is essential that we keep such voluntary surveys workable and that we continue to rely on industry cooperation, which is often mediated through trade associations. Effective proactive communication is required with all parties so there are no surprises and that the expectations are clear. The inclusion of pilot visits will sometimes be part of the arrangements agreed for the work and the implications of this approach on the integrity of the research methodology should be considered on a case-by-case basis.

Often, visits will take place without HSE Specialist Inspector (SI) staff present, but for some projects they will need to be present in order to assess dutyholder compliance with specific legal requirements related to the research. If the actions are different when inspectors are present, this is indicated below.

1. Before visiting

Identify volunteer sites - HSL to initiate and complete

- This should commence by discussion with the relevant HSE leads (eg in a sector team or specialist group) and through contact with the relevant trade associations. (HSE will also confirm who the contacts for overseeing the project are.) In order to secure participation, this may necessitate HSL, the HSE specialist portfolio holder and the relevant HSE lead (in combination) providing overall summary briefing on the justification, methodology and timing of the research. Information will also be provided on HSE's approach for dealing with situations where enforcement action is required, and the application of Fee For Intervention (FFI) to material breaches that are identified as a result of the visits:
 - a) proactively to trade associations
 - b) reactively to individual sites
- HSL should provide a list of the likely participating sites to the relevant HSE leads in advance, or as and when they become known to HSL.

Provide information of proposed site visit to the relevant operational Directorate - HSL to act

- Before commencing further liaison with the site, HSL should confirm with the relevant operational B2 with responsibility for the site:
 - a) that there is no outstanding enforcement activity or other reason to preclude the visit
 - b) the date(s) of the proposed research visit
- * HSL and the relevant HSE lead should agree between them who will act as the reactive single point of contact and then inform the relevant operational B2.

(ii) Matters of Evident Concern (unconnected with the survey/research)

 The operational Directorate should decide whether enforcement action is necessary and, if so, advise the relevant HSE leads before action is taken (so wider project communications can be considered).

Where a Specialist Inspector is also present, exceptionally they may need to act immediately eg a matter of evident concern and they, rather than HSL, will lead on liaising with HSE colleagues, but this will be agreed between them on site.

3. Actions to be taken associated with the issue of the visit report

Send preliminary report - HSL to act

- HSL should send a preliminary report to the site eg to confirm relevant process details. At this stage this should not be copied to the relevant HSE leads or operational Directorate.
- Following agreement on the factual details of the visit, HSL should share
 the updated preliminary report with HSE's specialist portfolio holder for the topic
 (one of the HSE leads), who will assist with interpretation of the scientific or
 technical issues raised by the report.

Send final report - HSL to act

Following this, HSL should send the final site-specific report to: the site; the
relevant operational B2; HSE specialist portfolio holder for the topic; and to the
relevant HSE leads.

Determine HSE action - the relevant HSE lead to initiate

On receipt of the HSL site-specific report, the relevant HSE lead should decide whether it is necessary to initiate a discussion with the operational B2 and HSE specialist portfolio holder for the topic to agree the HSE response (ie whether a site visit is appropriate, matters for possible enforcement, timing of any regulatory visit, etc.). The decision on whether to visit and on any enforcement action rests with the operational Directorate, taking account of any consistency issues identified by the relevant HSE lead. Only if a visit is paid by an operational inspector to the site and a material breach is then identified, will FFI apply.

Record HSE action - operational Directorate to act

 The operational Directorate should record information on any follow-up activity on COIN (and for FFI) in accordance with current instructions.

April 2015



Controlling construction dust with on-tool extraction

HSE information sheet

Introduction

This information sheet gives guidance on choosing, using and maintaining on-tool extraction for controlling construction dust. It is mainly for managers and supervisors but is also useful for trade union safety representatives and workers.

The hazards posed by construction dust

Regularly breathing construction dust can cause diseases like lung cancer, asthma, chronic obstructive pulmonary disease (COPD – which includes emphysema and other breathing difficulties) and silicosis. Silica is the second biggest killer of construction workers after asbestos.

Some of the most common construction jobs create high dust levels. These jobs often involve the use of power tools like cut-off saws, grinders, breakers and sanders. There is a legal duty for employers² to prevent or adequately control worker exposure to construction dust. On-tool extraction is an effective control for this dust and will reduce the risk of ill health.

How to choose on-tool extraction

On-tool extraction is a type of local exhaust ventilation (LEV) system which is fitted directly onto the tool. The 'system' consists of several individual parts – the tool, captor hood, extraction unit and tubing. Each part plays a role in establishing how effective the system is and the level of control it gives. Manufacturers/suppliers do provide complete systems but some parts (especially extraction units) can be used with other tool makes and models.

It is important to choose parts that are compatible and work together. The dust may be poorly controlled if you do not. Make sure the system is right for the particular task(s) and the method(s) of work. Involve workers in the selection process. Use the following guidelines:

Construction Information Sheet No 69

Tools and accessories

Limit the amount of dust created by choosing appropriate tools and accessories – eg sanding blocks/pads or grinding discs with enough holes to allow the dust to be extracted through them (see Figure 1).

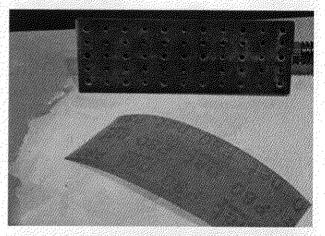




Figure 1 Tools and accessories providing for effective dust removal

Captor hood

The hood is the most important part of the LEV system. It is often manufactured as part of the power tool but it can also be retro-fitted to existing equipment. See Figure 2 for examples.



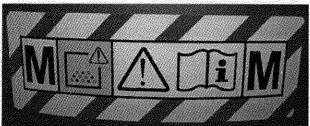


Figure 4 Examples of labels on H and M class extraction units

Tubing

What it does

The tubing connects the captor hood to the extraction unit.

How to choose the right one Check that the tubing:

- is the right construction, diameter and length for the work and the extraction unit;
- fits securely to both hood and unit.

How to use on-tool extraction correctly

Just providing the right equipment is not enough to control dust risks. The equipment needs to be operated correctly and be properly maintained. That means you should pay particular attention to the following stages:

Before use

Provide training

Workers need the right training before using on-tool extraction. This includes information on:

- selecting the right on-tool system;
- pre-use checks and maintenance;
- how to use the system correctly;
- other controls that may be needed (eg respiratory protective equipment) and how to use them;
- common faults, how to spot them and the action to take;
- what to do if there is a problem.

During use

Follow instructions on use

Make sure you apply the system to the work in the correct way. Focus on:

- checking it is in good working order (not damaged) before work starts;
- following the method of work;
- using the equipment in the right way. Follow manufacturer's instructions;
- ensuring the captor hood is as close as possible to the work surface;
- ensuring the tubing has a good connection to both the captor hood and extraction unit. Use an adaptor if needed, not tape;
- emptying the extraction unit regularly. Use the correct disposable waste bags. Seal and place in the right waste container. Do not empty these bags to recycle them;
- cleaning the equipment regularly (eg wipe down daily). Do not let dust build up on working parts.

How to maintain on-tool extraction

Regular checks/maintenance

Ensure that the system works properly first time, every time. Carry out formal maintenance checks at least once a week. You may have to do this more frequently if there is a high risk of the equipment being damaged. Concentrate on:

- damage to parts of the system such as the hood or ducting. Repair or replace straight away;
- maintaining the extraction unit's flow of air. Follow the manufacturer's instructions. Check that the airflow indicator and any built-in cleaning mechanism work properly. Replace filters when needed;
- replacing worn cutting discs etc.

Thorough examination and test (TExT)

Equipment also needs proper servicing and testing to make sure that it remains effective over a long period.

A TEXT is a detailed and systematic examination that ensures the equipment can continue to perform as intended by its design. A person with the right knowledge, capabilities and experience should carry out a TEXT at least every 14 months. You might need more frequent testing if regular wear and tear could limit the effectiveness of the system more quickly.

If you own an on-tool extraction system you will need to arrange for this examination and keep a suitable record to show that it has been done. If you are hiring

On-Tool Extraction Thorough Examination and Test (TExT) FAQs

I'm an Employer

What is on-tool extraction?

On-tool extraction is a specialised type of local exhaust ventilation (LEV) system. It has similar parts to a fixed LEV system (i.e. captor hood, extraction unit and hoses). Unlike fixed LEV systems, however, these parts can be interchangeable – e.g. the same extraction unit and hose might be used with an angle grinder for one task and then a circular/chop saw for another. The flexible nature of on-tool extraction means that it can be used in a number of work situations. These can be subdivided into:

- 'Fixed' work: where the same on-tool extraction system is regularly used for specific applications – e.g. in a car repair or joinery workshop.
- 'Variable' work: where an extraction unit is used with a number of different tools / hoses for a variety of work tasks or activities e.g. on a construction site.

This interchangeable nature means that **all parts need to work together for the on-tool extraction to be effective**. Some manufacturers/ suppliers provide complete 'harmonised' systems but parts from different makes and models can be used together providing they are compatible. You also need to ensure that the parts are fit for purpose – i.e. right for the work / substances involved. Poor design, compatibility or performance of any part can significantly reduce the effectiveness of the system and the level of protection it gives. The most critical factors are to ensure the substance(s) involved is captured in the captor hood and subsequently diverted into the extraction unit. If the captor hood is ineffective for any reason (e.g. it is incompatible with the tool design, damaged or weakened by deterioration) then control will be lost. You can find detailed information about on-tool extraction in CIS69 (http://www.hse.gov.uk/pubns/cis69.htm).

Does on-tool extraction need a thorough examination and test (TExT)?

Yes. On-tool extraction is a form of local exhaust ventilation (LEV). The TExT ensures that the LEV system continues to meet its intended operating performance and effectively contributes to achieving adequate control as required under regulation 7 of COSHH (http://www.hse.gov.uk/coshh). However, the TExT for on-tool extraction equipment is only necessary for the extraction unit itself. Other items are covered by your maintenance checks — see below.

The extraction unit should be thoroughly examined and tested at least every 14 months. More frequent testing may be needed if regular wear and tear could limit the unit's effectiveness more quickly – e.g. six months might be an appropriate interval for equipment used in harsh conditions like construction sites.

Keep a copy of the report issued by the examiner. Address any critical defects immediately. A test label is a quick and effective way of indicating to users that an extraction unit has undergone a TExT, that it has passed and the next examination due date. This is particularly the case for situations where different people may regularly use the extraction unit such as the construction or hire industries.

Who is responsible for getting the thorough examination and test done?

You, as the employer, need to arrange for this if you own an on-tool extraction unit that will be used as part of an LEV system (e.g. with a tool with in-built captor hood and hose). Remember it must be done by someone who has the correct knowledge, skills and practical experience to do an effective and reliable job. Contact the manufacturer or supplier for more information if you are unsure.

When hiring, check with the hire company that the extraction unit has been appropriately tested. They own the equipment and have the responsibility to ensure the TExT has been carried out. Pay particular attention to the expiry date of the TExT when hiring extraction equipment for long periods. You will be responsible for ensuring that this equipment is not used after the TExT has expired if it is still on hire to you. Contact the hire company before this date and arrange for the equipment to be re-tested or delivery of an alternative with an up to date TExT.

Hire companies should provide you with information on how to use the equipment plus the inspection and maintenance requirements. The HSE website contains further information on the <u>duties of hirers and suppliers</u> (http://www.hse.gov.uk/work-equipment-machinery/supplier.htm)

Do I have to maintain my on-tool LEV as well as ensure a TExT is carried out?

Yes. It's important to note that a TExT is needed as well as regularly checking the equipment is in good working order. This involves pre-use checks and more detailed maintenance inspections (e.g. weekly) to ensure the whole control system (ie captor hood, hoses and extraction unit) continues to provide satisfactory performance. Typical checks involve ensuring:

- Any airflow indicator and built-in cleaning mechanism is properly working (e.g. by simulating a blockage)
- Filters are replaced when necessary;
- The equipment is regularly cleaned to stop dust building up;
- The captor hood is correctly positioned and any connections are secure (this is particularly important where equipment is being interchanged);
- There is no damage or blockages to parts of the system;
- · The correct collection bags are fitted;
- Parts are compatible or suitable for the task being done.

Follow the manufacturer's recommendation and instructions.

I'm an Examiner

I have been engaged to examine and test an on-tool extraction system; what should I do?

The principles for conducting a TExT for on-tool extraction are the same as for fixed LEV systems and outlined in HSG 258 'Controlling airborne Contamination at Work' (http://www.hse.gov.uk/pubns/books/hsg258.htm). However, it is only necessary to thoroughly examine and test the extraction unit itself. This is because the interchangeable nature of ontool extraction and the range of tasks it is used for make it impractical to test all the potential combinations. The condition and performance of the other components (i.e. captor hood and hoses) should be regularly checked by visual inspection as stated under COSHH Regulation 8 Guidance (Ref L5). They should be replaced or repaired where there is damage or deterioration. It is the responsibility of the employer to ensure the extraction system is functioning properly and providing effective control each time the equipment is used.

The TExT of the extraction unit should consist of:

- Stage 1: Thorough visual examination of individual parts for presence, damage or wear that could affect control performance. This may include checking the:
 - Unit is complete with its standard items (filters, bags etc);

- Extraction unit body to ensure it is airtight / has no significant leaks (e.g. latches, seals, connections and any staining around the exhaust port);
- Correct signage and identification;
- Gauge(s) and indicator(s) are correctly working;
- Filter(s) integrity;
- Collection bags can be correctly fitted and removed;
- Stage 2: Measuring technical performance of the extraction unit(s). This involves:
 - Measuring the air velocity (or calculating this from another measurement such as volume flow) next to the extraction unit inlet to make sure it is adequate. This should be done through the largest diameter tubing supplied by the manufacturer;
 - Checking the effective performance of any indicators fitted (e.g. by restricting the airflow in the test hose such that the velocity falls below 20m/s).

e.g. For dust class M or H machines this means checking against BS EN 60335-2-69 that the air velocity is greater than 20m/s (or the equivalent volume flow) and that the alarm / indicator operates when it falls below this – unless a greater figure is specified by the manufacturer.

The examiner should use the results to determine:

- The extent of any general wear and tear;
- If the unit still meets the minimum performance standards (e.g. that specified in standards or by the manufacturer);
- The condition of the filter and whether it needs replacing;
- Any other action required.

How can I measure the technical performance of extraction units?

Any suitable equipment can be used provided the results are accurate, reliable and repeatable. Examples include:

- A pitot tube or hot wire anemometer: This can be used in conjunction with a 'test piece' attached to the extraction unit inlet. Drill a small hole in this tubing at least 5 times the diameter away from the opening not attached to the extraction inlet (e.g. 250 mm for a 50mm diameter duct). This allows the airflow to smooth out and provide more accurate/stable readings. Locate the pitot tube or hot wire anemometer through this hole ensuring that it sits in the centre of the ducting.
- Pressure gauge: You will need to be able to get an accurate measurement of air velocity by converting the measurements obtained. Use the LEV calculator (http://www.hse.gov.uk/lev/calculator.htm) Make sure that you have any relevant information from the manufacturer. Care is needed when selecting analogue devices to ensure that the gauge can provide an accurate reading (i.e. is not subject to significant deflection).

Any test should be in relation to the largest diameter of hose supplied by the manufacturer

What should my thorough examination and test record for on-tool equipment consist of?

A record should normally contain all of the information outlined in the Approved Code of Practice to the COSHH regulations (http://www.hse.gov.uk/coshh). However, some of this is not practical for on-tool extraction, particularly where it is may be used with a number of different tools / hoses for a variety of work tasks. Below is an outline of the information which should be collected:

Inf	formation/Notes	Results	Actions Taken/ Required
	ame and address of employer sponsible		
Da	ite current TExT		
Da	ite of last TExT		
tes	uipment being examined and sted Including identifying arkings like serial numbers		
sul ap	cation of the equipment and bstances involved (only plicable for work in a 'fixed' cation)		
Vis	sual examination		List any critical action
_	ist items to be spected/checked e.g.		needed and preventative maintenance recommendations before the next TExT
•	Extraction unit body to ensure it is airtight / has not significant leaks (e.g. latches, seals, connections and any staining around the exhaust port)		
•	Signage and identification		
•	Gauge(s) and indicator(s)		
•	Filter(s)		
Results from measuring technical performance Including: operating performance (e.g. air velocity it is being judged against),			List any critical action needed / preventative maintenance recommendations before the next TExT.
•	Method of measurement		
•	Measurement of unrestricted air velocity (m/s) or air volume (m ³ /hr)		
•	Measurement of restricted air velocity (m/s) or air volume (m³/hr) at which any alarm /indicator operates		
Otl	her information		
the	me, job title and employer of e person carrying out the extra tax axis.		





Dust in Construction

Briefing Note — Directly Employed

Managing and controlling long-term exposure to dust and fumes is a challenge facing the industry.

Many workers are exposed daily, but by the nature of the work they undertake, may work for short durations on various sites and frequently may change employers.

The amount of dust breathed in each day can seem small or insignificant. In some cases the effects of exposure may be immediate but generally it can take years before the symptoms of ill health become apparent.

Because of this, respiratory risks are often overlooked, misunderstood or underplayed.

The exposure to airborne dust or fumes can result in skin diseases and severe respiratory illnesses (such as occupational asthma).

Asbestos fibres, silica and lead dust are particularly hazardous if inhaled. Such diseases can be totally disabling, causing those affected to give up work or change their employment.

Some industry statistics:-

- Work-related ill health has devastating consequences for individuals and their families but it is very much misunderstood or underestimated.
- HSE statistics show that each year up to 7,000 people develop occupational asthma.
- 4,000 people die each year from asbestos-related diseases.
- 500 people (and more each year) are dying from silica-related cancers (dust from cutting blocks, kerbs, and other items).
- Many more suffer life-changing illnesses.
- 2.6 million working days are lost to work-related ill health each year.

The strength of this evidence cannot be ignored, and we need to act now . Accordingly, the HBF has committed to make improvements to the management of exposure to dust across all of its member's sites. This will require a major commitment by both employers and by all of our contractors in understanding the issues, educating their workforce and adequately supervising to ensure adequate control measures are in place. Over the forthcoming weeks, we will be in direct contact with you, in order to share our action plan and outline your contributions in making our sites healthier places in which to work. Together, we can 'do it right!'









Dust in Construction

Briefing Note — Directly Employed

In order to adequately reduce exposure to dust below levels that could cause harm, we need to take appropriate precautions. These measures are based on the principles of avoidance, reduction and control.

For our efforts to be successful, we need your commitment and contribution.

In principle, this means :-

- Avoiding working in, or creating dusty environments, without adequate protection and control.
- Reduce your risk of exposure by damping down dusty materials prior to sweeping, or using an appropriate dust extractor or vacuum (Type M or H).
- Wearing respiratory protective equipment (e.g. disposable mask) that is suitable for your exposure and that fits your face properly. To achieve this, then you must be clean shaven (less than 8 hours growth) and you must have been face fit tested (to ensure there is a proper seal between your face and the mask). A face fit test requires you to wear a designated mask whilst performing a number of tasks under strict conditions. Once the test has proved successful a record will be completed by the tester. In situations, where failure results, then the tester may adjust the mask (e.g. by adjusting the nose clip etc.) or provide an alternative model.

It is your responsibility to make sure that you only wear the make and model of the mask that you have been tested on and to ensure it is replaced when worn out or damaged.

Legal Requirements

Health & Safety Legislation requires that employers provide suitable personal protective equipment and that employees co-operate with employers in fulfilling their obligations in its use. In order to ensure you're adequately protected you must use the equipment provided and be clean shaven. Failure to do so, could result in detrimental effects to your health and to the risk of enforcement action from the Health & Safety Executive for both you individually, and the company.

Therefore, should you not follow the guidance given and put yourself and the company at risk, disciplinary measures will be instigated.









Dust in Construction

Stubble and Masks don't mix!





The HSE have recently published a research report on the implications of stubble (not being clean shaven) on the effectiveness of respiratory protective equipment.

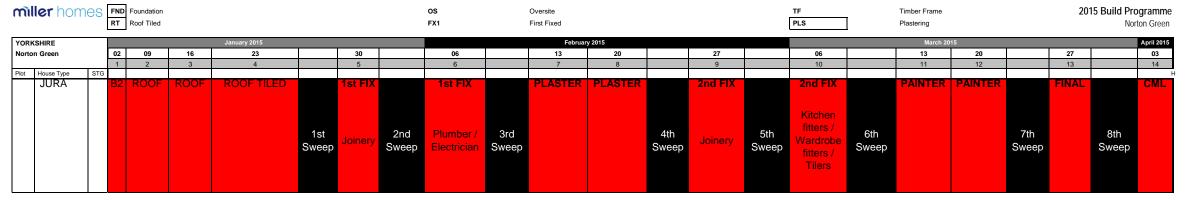


Their conclusions indicate that stubble increases the leakage into the breathing zone and dependant on the work activity and type of mask selected, that the impact of this can vary from person to person and generally, will not give adequate protection to limit exposure.

The HSE have therefore recommended that anyone who uses tight fitting respiratory protection must have shaved within the previous 8 hour period prior to the work 'shift' in order to meet the required protection level.

Do it right





1st Sweep Before Joiners first fix
2nd Sweep On completion of joiners work
3rd Sweep After Plumber/Electrician first fixing
4th Sweep After plasterers
5th Sweep After second fix joinery
6th Sweep After second fix other trades

7th Sweep After painting 8th Sweep Pre CML Brick Dust Wood dust Wood dust & Brick dust Plaster dust Wood dust & Plaster dust Wood dust & Plaster dust

1st Sweep











3rd Sweep





4th Sweep



5th Sweep



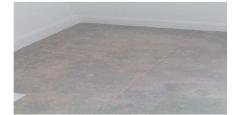


6th Sweep



7th Sweep

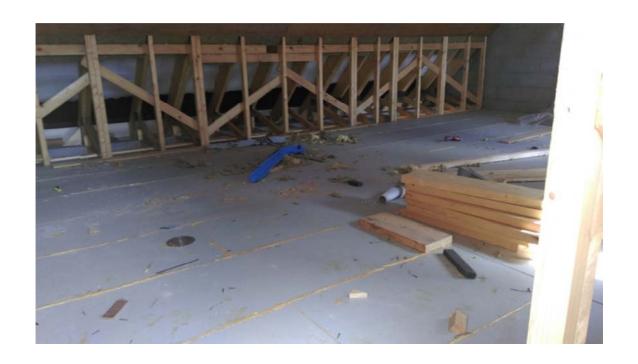


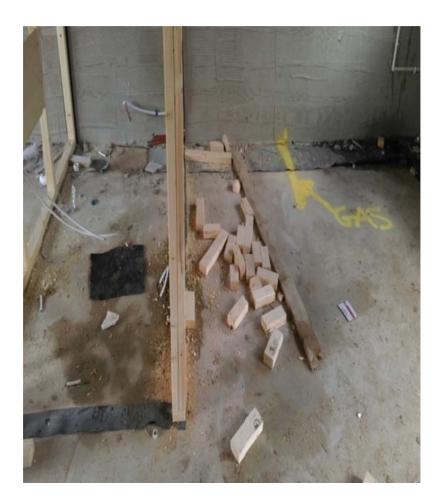






2nd Sweep





3rd Sweep





