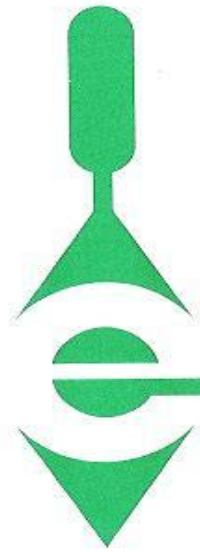


Occupational Health Procedure 2024



**Emery Brothers Ltd
Bathford Works
34 Box Road
Bath
BA1 7QH**

CONTENTS

1. Introduction
2. Managing Construction Health Risk
3. Recruitment Procedure for Safety Critical Workers
4. Health Surveillance Process
5. Health Assessment Matrix
6. Definition of Terms
7. Choosing an Occupational Health Provider
8. Assessment
9. Asbestos
10. Lead
11. Dust
12. Noise
13. Vibration
14. Musculoskeletal Disorders
15. Skin Disorders
16. Stress
15. Safety Critical Workers Fitness for Task Assessments

OCCUPATIONAL HEALTH PROCEDURE

1. INTRODUCTION

The Health and Safety at Work etc Act (HSWA) places a duty on employers to ensure the health and safety of their employees and others who may be affected by their work activities. This duty includes ensuring that employees and others are physically and mentally capable of undertaking the tasks they are required to carry out. Regulations made under the HSWA, including the Management of Health and Safety at Work Regulations 1999 and the Constructions (Design and Management) Regulations 2015, place specific requirements on employers for risk assessment and assessment of competence. The following guidance starts from the assumption that all control measures to Eliminate, Reduce, Inform and Control workplace exposure to materials, substances and work practices that constitute significant risk to a workers health and wellbeing.

Every year more working days are lost due to work-related illness compared to injuries. The statistics reveal that construction workers have a high risk of developing diseases from a number of health issues.

Cancer– construction has the largest burden of occupational cancer amongst the industrial sectors. It accounts for over 40% of occupational cancer deaths and cancer registrations. It is estimated that past exposures in the construction sector annually cause over 5,000 occupational cancer cases and approximately 3,700 deaths. The most significant cause of these cancers is asbestos (70%) followed by silica (17%) working as a painter and diesel engine exhaust (6-7% each).

Hazardous substances – dusts, chemicals and potentially harmful mixtures (eg in paints) are common in construction work. Some processes emit dusts, fumes, vapours or gases into the air and these can be significant causes of breathing problems and lung diseases. A number of construction-related occupations also have high rates of dermatitis from skin exposures to hazardous substances.

Physical health risks – skilled construction and building trades are one of the occupations with the highest estimated prevalence of back injuries and upper limb disorders. Manual handling is the most commonly reported cause of over seven day injuries in the industry. Construction also has one of highest rates of ill health caused by noise and vibration.

There are many reasons why construction workers have a high risk of developing occupational disease. This includes:

- **The construction site environment** – unlike a factory, construction work takes place in many and varied environments. Different sites can present a range of health risks, including existing ones like asbestos. The extent of these risks can also vary between areas of the same site.
- **The dynamic nature of the work** – construction sites are constantly changing and a large number of trades may all be carrying out tasks potentially dangerous to their health and that of others.
- **Risk appreciation** – there is generally a low awareness of health risks and the controls needed. It can take many years for serious ill health conditions to develop and the immediate consequence of a harmful workplace exposure may often be dismissed as not significant compared to the immediate impact of injuries caused by accidents.
- **Employment** – many workers are either self-employed, work for small companies, or frequently change employers. Others work away from home. These situations can make it problematical for workers to easily look after their own health and they often have little or no contact with occupational health professionals.

Health surveillance is a system of ongoing health checks. These health checks may be required by law for employees who are exposed to noise or vibration, ionising radiation, solvents, fumes, dusts, biological agents and other substances hazardous to health, or work in compressed air.

Health surveillance is important for detecting ill-health effects at an early stage, so employers can introduce better controls to prevent them getting worse, providing data to help employers evaluate health risks, enabling employees to raise concerns about how work affects their health, highlighting lapses in workplace control measures, therefore providing invaluable feedback to the risk assessment, providing an opportunity to reinforce training and education of employees (eg on the impact of health effects and the use of protective equipment).

If employers collect or use information about their employee's health, the General Data Protection Regulation 2018 will apply. This might be the case, for example, when employees are asked to complete a questionnaire about their health or where they have a consultation with an occupational health professional.

The collection and use of health information brings the Regulation "sensitive data" rules into play. These do not prevent the processing of such information but limit the circumstances in which it can occur. Employers must be able to satisfy one of the sensitive data conditions. The Regulation sets out principles for the collection and use of health information. If employers wish to collect and hold information on their employee's health, they should be clear about why they are doing so and satisfied that their action is justified by the benefits that will result. The Regulation also requires openness and employees should be told why information about their health is being collected; what that information is, how it may be used and how it will be stored.

Managing health risks follows the same principles as managing safety risks. Risk assessments should be used to identify any need for health surveillance. You should not use health surveillance as a substitute for undertaking a risk assessment or using effective controls. Health surveillance can sometimes be used to help identify where more needs to be done to control risks and where early signs of work-related ill health are detected, employers should take action to prevent further harm and protect employees.

When putting in place a health surveillance programme, avoid blanket coverage for all employees as it can provide misleading results and waste money.

Health surveillance is a particular legal requirement and should not be confused with activities to monitor health where the effects from work are strongly suspected but cannot be established workplace wellbeing checks, such as promoting healthy living or fitness to work examinations eg fitness to operate cranes, forklift trucks or health assessments requested by night employees.

The law places duties on all those involved in construction. The nature and extent of those duties differs depending on the roles undertaken:

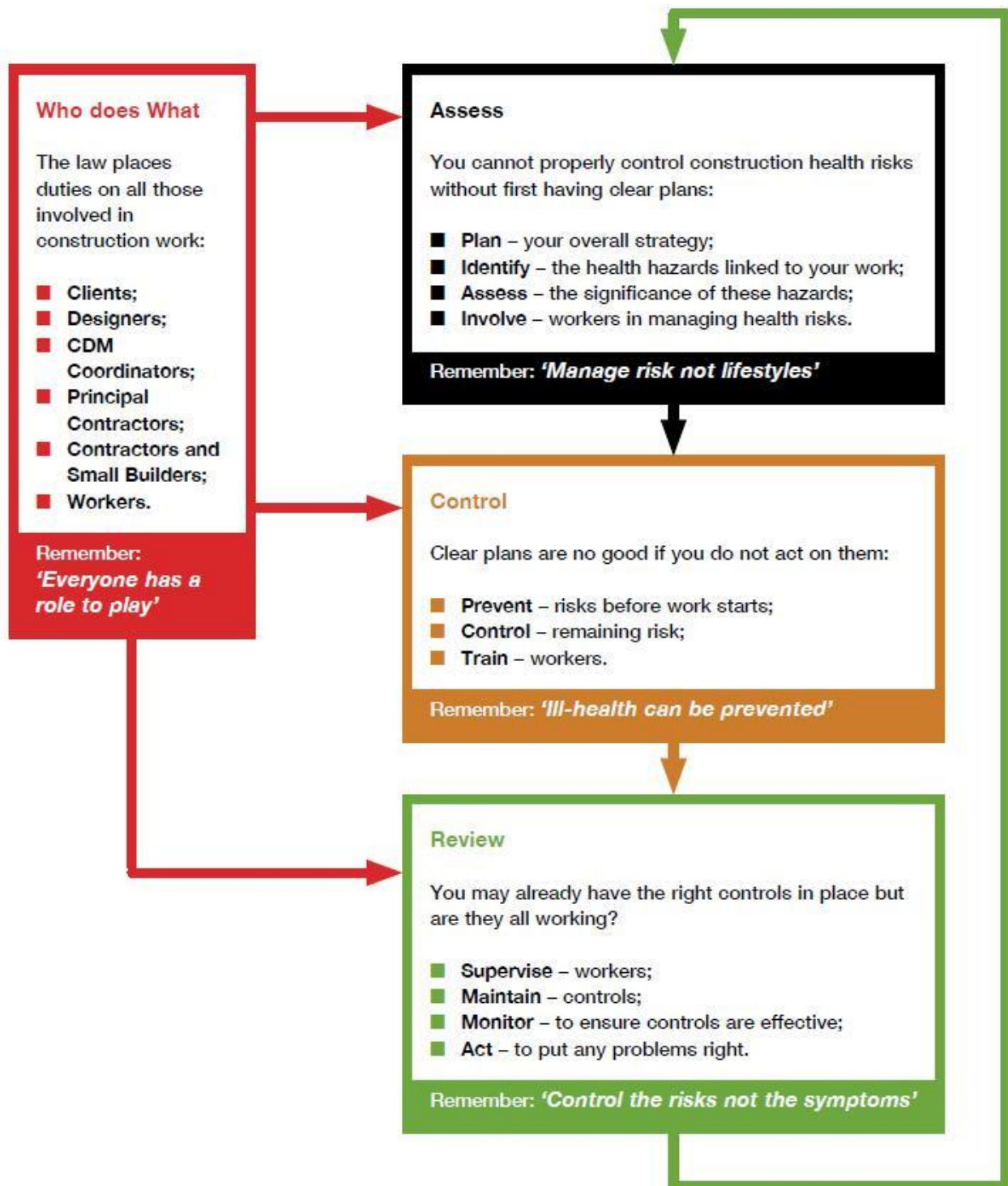
- **Clients** – need to ensure that suitable arrangements are in place for managing health risks during construction.
- **Designers** – need to identify and eliminate health hazards where possible, and reduce remaining risks.
- **Principal Designer** – have a key role in advising and assisting clients in respect of health risk management matters. (These duties will become the Principal Designers duties under the proposed CDM2015 Regulations)
- **Principal Contractors** – need to plan and implement a strategy to manage occupational health risks.
- **Contractors** - need to manage any occupational health risks that their workforce may be exposed to.
- **Workers** – need to take care of their own health and co-operate with others on health issues.
- As with safety risk assessment construction health risks cannot properly be controlled without first having clear plans:
- **Plan** - the overall strategy. Consider: where the organisation is now and where it needs to be, what needs to be achieved, who will be responsible and how you will measure performance, who shares your sites and how you will co-ordinate with them. The extent and detail of this plan depends very much upon the work you do and the number of people you employ.

Detailed or complex planning is not needed for a small company but may be more appropriate for larger organisations. More information is available from <http://www.hse.gov.uk/construction/lwit/index.htm>

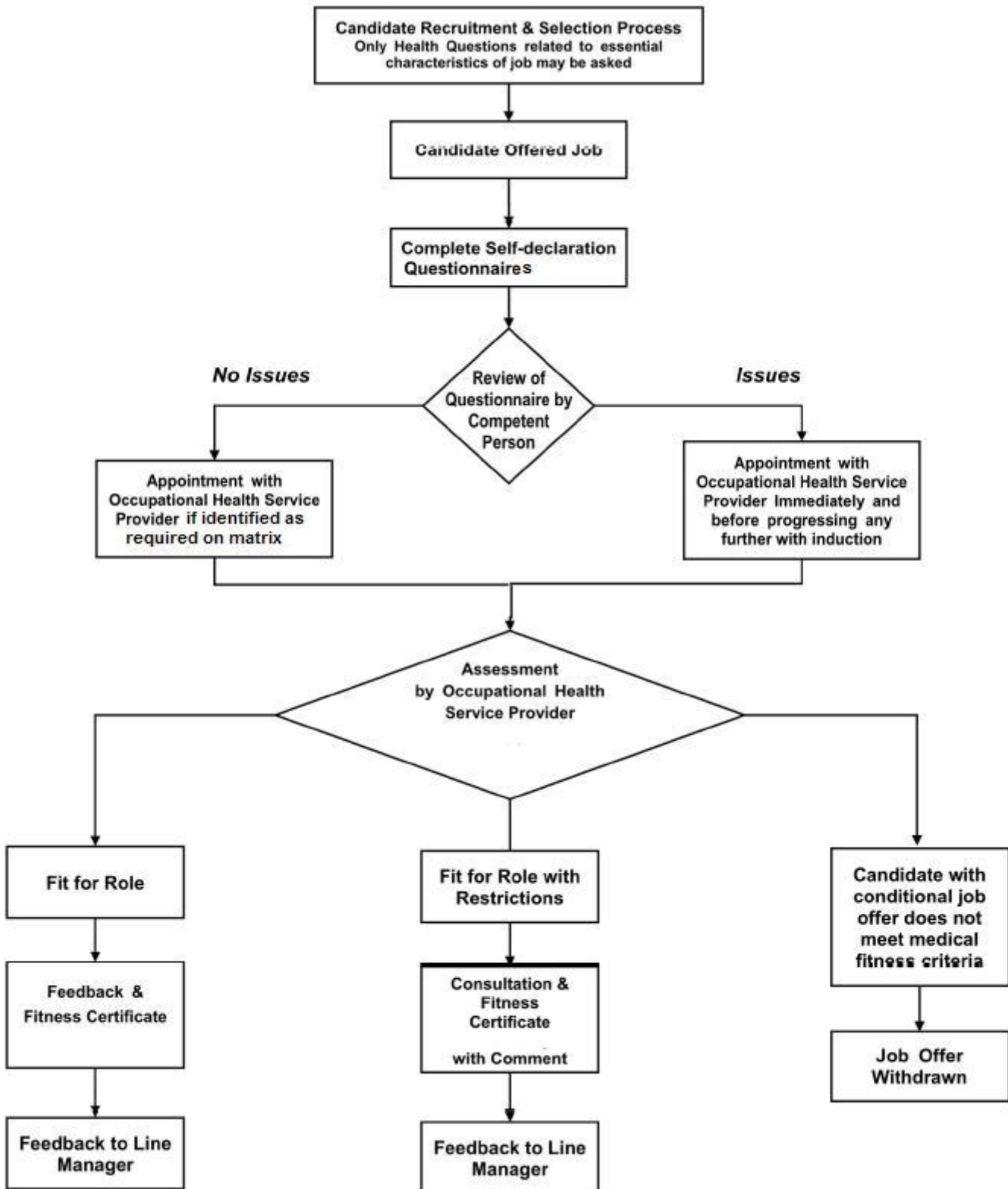
- **Identify** - the health hazards linked to the type of work being undertaken. The health hazards linked to your work. Think about: the tasks involved in your work, the key health hazards linked to these tasks and who might be affected by these hazards
- **Assess** - the significance of these hazards to the health of those affected. Consider; the chance of somebody being harmed by the hazard and how serious the harm could be.
- **Involve** – everyone in managing health risks. Informing workers about health risks means they may only know about them, but not really appreciate how to look after themselves and others. Involving them means they will understand these risks more and be in a much better position to help do something about it. More information on worker involvement is available from <http://www.hse.gov.uk/involvement/index.htm>
- **Remember** – ‘Manage risk, not lifestyles’. The law requires you to take steps to prevent or adequately control health risks. Helping workers tackle wellbeing issues like smoking or diet may be beneficial but is not a substitute for this.

2. MANAGING CONSTRUCTION HEALTH RISKS

Managing health risks is no different to managing safety risks. This diagram outlines the basic principles that you need to know.



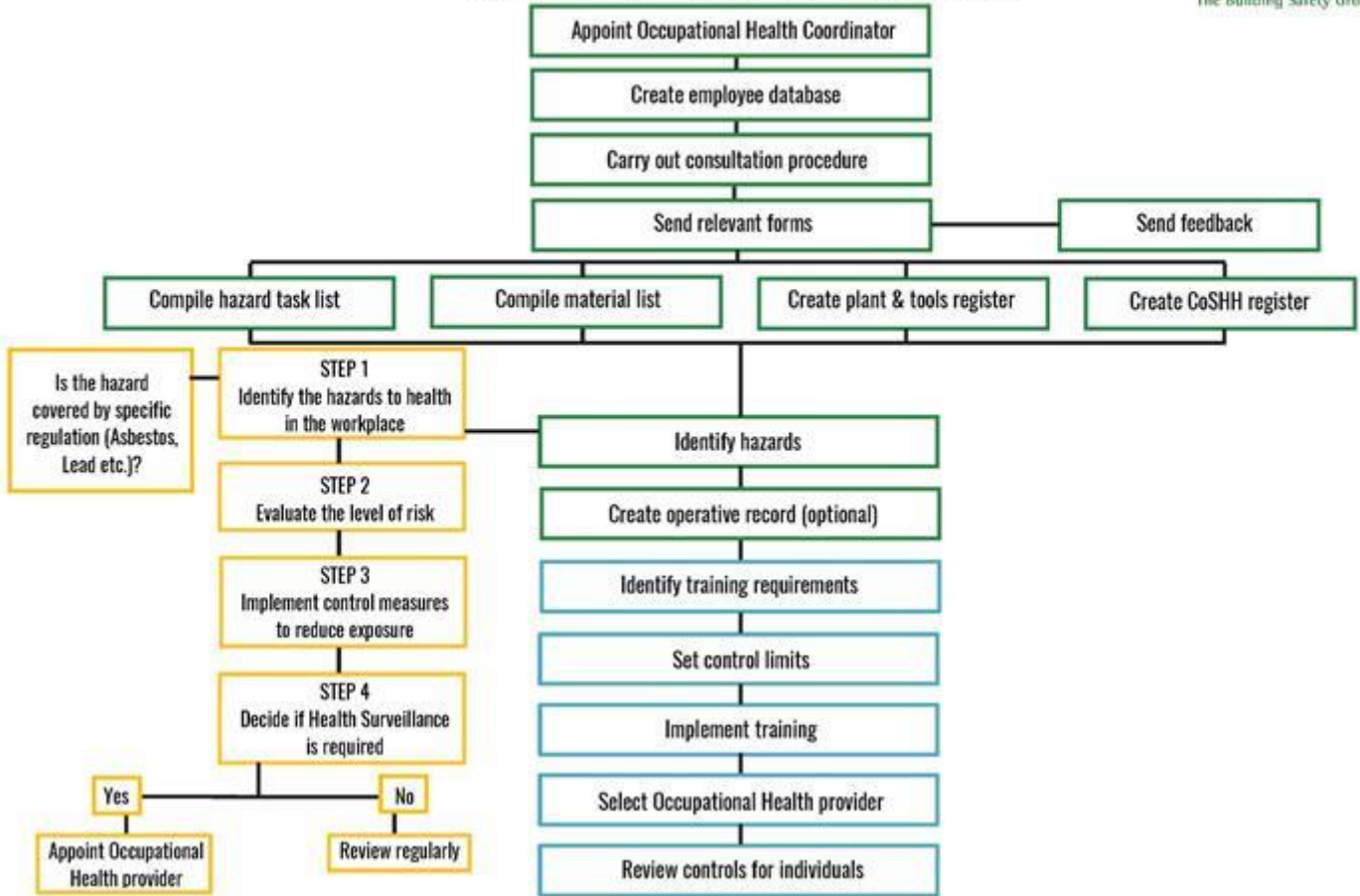
3. RECRUITMENT PROCEDURE FOR SAFETY CRITICAL WORKERS



4. HEALTH SURVEILLANCE PROCESS



Occupational Health Procedural Chart



5. HEALTH ASSESSMENT MATRIX

HEALTH ASSESSMENT MATRIX	A	B	C	D1	D2	D3	D4	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
	Pre-Placement Questionnaire	Pre-Placement Health Assessment/Medical	Safety Critical Workers - Fitness For Task Assessments	Statutory Medicals (Appointed Doctor)				Musculoskeletal Questionnaire/Assessment	Skin Health Check	Respiratory Health Check	Audiometry Health Check	Vibration Health Check	Blood Pressure	Urinalysis	Visual Acuity	Mid Range Acuity (DSE users)	Colour Vision	Biological Monitoring	Workplace Stress / Mental Health Assessment	Drug and Alcohol Screening (Company Policy)	General Health/Lifestyle
Asbestos																					
Lead																					
Ionising Radiation																					
Compressed Air																					
SECTION 1: JOB ROLE/TASK																					
ADMINISTRATOR (site)																					
ASBESTOS LICENSED WORKER			C																		
BRICKLAYER																					
CARPENTER/JOINER/SHOP FITTER																					
CONCRETE SPRAYER																					
CONSTRUCTION SITE OPERATIVE - GENERAL																					
CONSTRUCTION SITE OPERATIVE - SPECIALIST (risk assessment)																					
DIVER (refer to standards)			C																		
DEMOLITION OPERATIVE																					
ELECTRICIAN - FITTER/ENGINEER																					
FORM WORKER																					
GEOTECHNICAL			C																		
GLAZIER/GLASS FITTER/WINDOW INSTALLER																					
INDUSTRIAL CLEANER																					
LGV/HGV DRIVER			C																		
MARITIME OPERATIVE GENERAL (refer to standards)																					
MARITIME OPERATIVE SPECIALIST (refer to standards)			C																		
PAINTER/DECORATOR																					
PILING OPERATIVE																					
PIPE FITTER																					
PLANT OPERATOR - GENERAL			C																		
PLANT OPERATOR - CRANE DRIVER																					
PLANT OPERATOR - MOBILE MACHINE DRIVER			C																		
PLASTERER/DRY LINER																					
PLUMBER/GAS/HEATING/VENTILATION ENGINEER																					
PROFESSIONAL																					
ROAD CONSTRUCTION - ASPHALTER/PAVER																					
ROOFER - SLATER/THATCHER/TILER																					
SCAFFOLDER/RIGGER			C																		
SITE FOREMAN/SUPERVISOR																					
SITE MANAGER																					
SLINGER/SIGNALLER/BANKSMAN/TRAFFIC MARSHALL			C																		
STEEL ERECTOR STRUCTURAL/FABRICATOR			C																		
STEELER/BLACK			C																		
STONEMASON																					
TUNNEL BORING GANG			C																		
WALL TILER/FLOOR TILER																					
WELDER																					
SECTION 2: HAZARDS TABLE																					
ASBESTOS (short duration)																					
BIOLOGICAL																					
CEMENT/CONCRETE																					
CHEMICAL - RESPIRATORY (sensitisers)																					
CHEMICAL - SKIN (sensitisers)																					
COMPRESSED AIR																					
CONFINED SPACE			C																		
IONISING RADIATION																					
LEAD																					
LONE WORKING																					
MANUAL HANDLING																					
NOISE																					
NIGHT WORK (and annual assessment)																					
RAIL TRACKSIDE (refer to standards, PTS or equivalent)																					
ROADSIDE (high speed)			C																		
SILICA																					
TUNNELLING (Hyperbaric and/or confined space only)			C																		
VIBRATION																					
WORKING AT HEIGHT (control measures not practicable)			C																		
SECTION 3: SAFETY CRITICAL WORKERS - All workers must be assessed for safety critical worker status																					
HEALTH CHECKS INCLUDED IN ASSESSMENT																					
KEY TO CODING:																					
	HEALTH SURVEILLANCE/MANDATORY HEALTH CHECK (Dependant on worker risk exposure - risk assessment required)																				
C	SAFETY CRITICAL - CBH classes this as an ESSENTIAL health check requirement in construction																				
	ASSESSMENT OF HEALTH (BEST PRACTICE) (Strongly recommended - risk assessment required)																				
	NOT LEGALLY REQUIRED - GOOD BUSINESS SENSE																				

6. DEFINITION OF TERMS

6.1 Medical Fitness

Being physically and mentally capable of undertaking the tasks that an individual is required to carry out.

NOTE: Medical fitness does not include assessment of an individual's competence.

6.2 Clinical Medical Records

Includes confidential medical information on an individual held by a health professional.

6.3 Construction Plant

Construction machinery which is controlled by an operator at all times when in use.

6.4 Safety-Critical Worker

Some jobs in the construction industry involve activities that can place other workers at risk. These jobs are called 'safety critical' and the people who do them are 'safety-critical workers'. See matrix for a list of safety-critical workers.

6.5 Fitness for Work (task) Assessments

Specific checks to assess whether an individual is fit to undertake the work they will be doing without unacceptable risk to themselves or to others.

6.6 Functional Assessment

A health professional's assessment of an employees' physical and mental condition, its impact or influence on their ability to carry out specific tasks. Four possible outcomes are (1) fit, (2) temporarily unfit, (3) fit subject to restrictions and (4) unfit.

6.7 Health Assessment

Assessment involving a range of techniques used to determine a worker's health status at the time of assessment and to give indications about future fitness.

6.8 Health Monitoring

Generic term covering the full range of techniques, statutory and non-statutory, to monitor the health of individuals during their employment.

6.9 Health Risk Assessment

Assessment involving a range of techniques used to determine the hazards a worker is likely to be exposed to at work and the effect on their health.

6.10 Health Information

Information regarding a person's health which may be accessed by an employer such as a fitness to work certificate provided to an employee's manager or HR department.

6.11 Partially Restricted Information

Information regarding a person's health which may only be accessed by a health professional.

6.12 Health Surveillance

Is the application of systematic, regular and appropriate procedures to detect early signs of work related ill health in employees who are exposed to certain health risks and acting on the results. It provides information to allow the early detection of harmful health effects at an early stage and checks that control measures are working, highlighting where further action might be needed.

6.13 Occupational Health

The effect of work on employees' health and the health of others.

6.14 Occupational Health Adviser (OHA)

A registered nurse having a recognised occupational health qualification.

6.15 Occupational Health Service Provider (OHSP)

An organisation or qualified individual engaged to deliver occupational health services.

6.16 Occupational Health Technicians (OHT)

A person providing technical components of occupational health services working under professional supervision to established protocols and procedures.

6.17 Occupational Physician (OP)

A Doctor qualified in the specialised field of occupational medicine.

NOTE: These are sometimes referred to as Occupational Health Physicians (OHP).

6.18 Operational Assessment

A further assessment which takes place when a functional assessment indicates there is a requirement. It takes place in controlled or test conditions by an assessor.

6.19 Signs of Disease

Objective evidence of ill health (i.e. what a doctor or nurse might find on examination) (See also symptoms).

6.20 Statutory Health Records

Historical records providing information about an individual's job, involving exposure to substances or processes requiring health surveillance and, where relevant, the conclusions of the person undertaking health surveillance. They may be kept securely with other confidential personnel records, but must not contain medical in confidence data.

6.21 Stress (work related)

The adverse reaction people have to excessive pressures or other types of demand placed on them at work.

6.22 Symptoms of Disease

Subjective indicators of ill health (i.e. what the sufferer experiences, for example a cough or shortness of breath) (See also 2.19 signs of disease).

7. CHOOSING AN OCCUPATIONAL HEALTH PROVIDER (OHSP)

Choosing an Occupational Health Service Provider (OHSP) requires employers to understand their individual company requirements and communicate these to potential providers not just when undertaking worker assessment, but also for other Occupational Health activities. It is important for companies to have a provider they can trust to provide authoritative and high quality results. It is also important that employees feel able to be open and frank with the OHSP.

The Safe Effective Quality Occupational Health Service (SEQOHS) Accreditation Scheme is a stand-alone scheme managed by the Royal College of Physicians of London, which has been selected to lead and manage the process on behalf of the Faculty of Occupational Medicine and has central government backing. The aim of the scheme is to ensure, through regular monitoring, that required standards are maintained by all accredited OH Services. Assessment for accreditation will be against the SEQOHS Standards, which were developed by the Faculty of Occupational Medicine in collaboration with a multi-agency, multi-disciplinary stakeholder group.

Further information can be found on the SEQOHS website at www.seqohs.org.

The range of OH provision is wide but in the main falls into three categories:-

- Commercial providers
- In-house services
- The public sector (i.e., the NHS both hospital based services and General Practitioners)

A list of OHSPs is provided in Appendix 1 this list is not exhaustive and other providers will be available.

Depending on the size and needs of the employer, there are three main ways of engaging with an OHSP:

- **Contract with OHSP**

The advantages of this approach are the ability to choose provider with appropriate occupational health expertise, a clearly defined service specification, continuity and consistent standards.

The disadvantages are that it may be costly for SMEs, a possible lack of flexibility - employees may have to travel to assessments.

- **Pay as you go**

The advantages of this approach are convenience for SME and costs more easily controlled.

The disadvantages are a possible lack of continuity and a possibility of inconsistent standards.

- **Employee's GP**

The advantages of this approach are that it will be convenient for the employee and the GP has access to full medical records.

The disadvantages are that the GP may not have occupational health expertise and a possibility of inconsistent standards.

Points to Consider

- What size of provider is required – local, national, large regional?
- How many employees are involved and is there a shift pattern to cover? Small providers might not be able to resource large contracts, while some SMEs can find large providers too impersonal;
- Who will be making most contact with the service? If there are many line managers making referrals, a call centre may be preferable. However, if only one person is liaising with the provider on behalf of the organisation, a dedicated contact may be preferable;
- Is an on-site service required and, if so, can this be accommodated? For on-site services, a private room or office is usually all that is required. Some providers can even offer mobile units, predominantly for health surveillance;
- On some construction sites the Principal Contractor may be able to arrange medical fitness assessments of sub-contractor's personnel.

8. ASSESSMENT

The assessment of employees will need to be undertaken at various points during their employment with a specific employer. These are:-

- Initial baseline assessment
- Health assessment at periodic intervals
- Assessment on change of job characteristics

Assessments on leaving employment may be considered to be of benefit to the employee and the employer in assessing the effectiveness of health risk management and the medical fitness assessment process. In addition it may be of benefit in the control of insured risks and the event of future work related disease compensation claims.

The frequency of periodic fitness reassessments is a balance between ensuring that they are at short enough intervals to ensure that significant changes are detected, but are not so frequent that they discourage employees or become uneconomic. A fixed maximum interval of three years for all personnel is preferable (The OHSP may well recommend a shorter interval, taking account of factors such as task, fitness and age).

8.1 Risk Assessments

When assessing the risks to people carrying out specific tasks or being exposed to certain substances, materials or environmental conditions, specific assessments should be undertaken. These may be supplemented by additional assessments if required. A range of Occupational Health Risk Assessments are available in the H&S Documents, Risk Assessments section of the BSG Hub.

8.2 Health Questionnaires

These are aimed at establishing an employees' previous health history, highlighting any current problems and medication. A range of initial and ongoing questionnaires are available in Appendix 2.

8.3 General Health Check

This should be undertaken if the Health Questionnaire has identified any area of concern, if the employee is a "safety-critical worker" or the work is identified in the hazards table in the matrix.

8.4 Health Surveillance

Periodic specific health checks required for safety-critical workers or the work being undertaken is identified in the hazards table in the matrix.

9. ASBESTOS

The Control of Asbestos Regulations 2012 (CAR12) states that workers undertaking licensable work with asbestos are under adequate medical surveillance by a relevant doctor. The medical surveillance must include a medical examination not more than 2 years before the beginning of such exposure and periodic medical examinations at intervals of at least once every 2 years or such shorter time as the relevant doctor may require, while such exposure continues and each such medical examination must include a specific examination of the chest.

A health record must be maintained and contain particulars approved by the Health and Safety Executive (HSE) for all of such employees and that record, or a copy of that record is kept available in a suitable form for at least 40 years from the date of the last entry made in it.

For work with asbestos, which is not licensable work with asbestos unless the exposure to asbestos of employees is sporadic and of low intensity; and it is clear from the risk assessment that the exposure to asbestos of any employee will not exceed the control limit and the work involves short, non-continuous maintenance activities in which only non-friable materials are handled, or removal without deterioration of non-degraded materials in which the asbestos fibres are firmly linked in a matrix, or encapsulation or sealing of asbestos-containing materials which are in good condition, or air monitoring and control, and the collection and analysis of samples to ascertain whether a specific material contains asbestos a medical examination must take place on or before 30 April 2015 and on or after 1 May 2015 a periodic medical examination must take place at intervals of at least once every 3 years, or such shorter time as the relevant doctor may require while such exposure continues and each such medical examination must include a specific examination of the chest.

A health record must be maintained and contain particulars approved by the Health and Safety Executive (HSE) for all of such employees and that record, or a copy of that record is kept available in a suitable form for at least 40 years from the date of the last entry made in it. Where an employee has been examined in accordance with these regulations the relevant doctor must issue a certificate to the employer and employee stating that the employee has been so examined and the date of the examination. The employer must keep that certificate or a copy of that certificate for at least 4 years from the date on which it was issued.

10. LEAD

Excessive exposure to lead has long been recognised as a potential health hazard. The Control of Lead at Work Regulations 2002 have been introduced to minimise those risks.

The Regulations apply to any work involving lead where operatives are exposed to the risk of ingesting, inhaling or absorbing lead or its compounds, into their bodies.

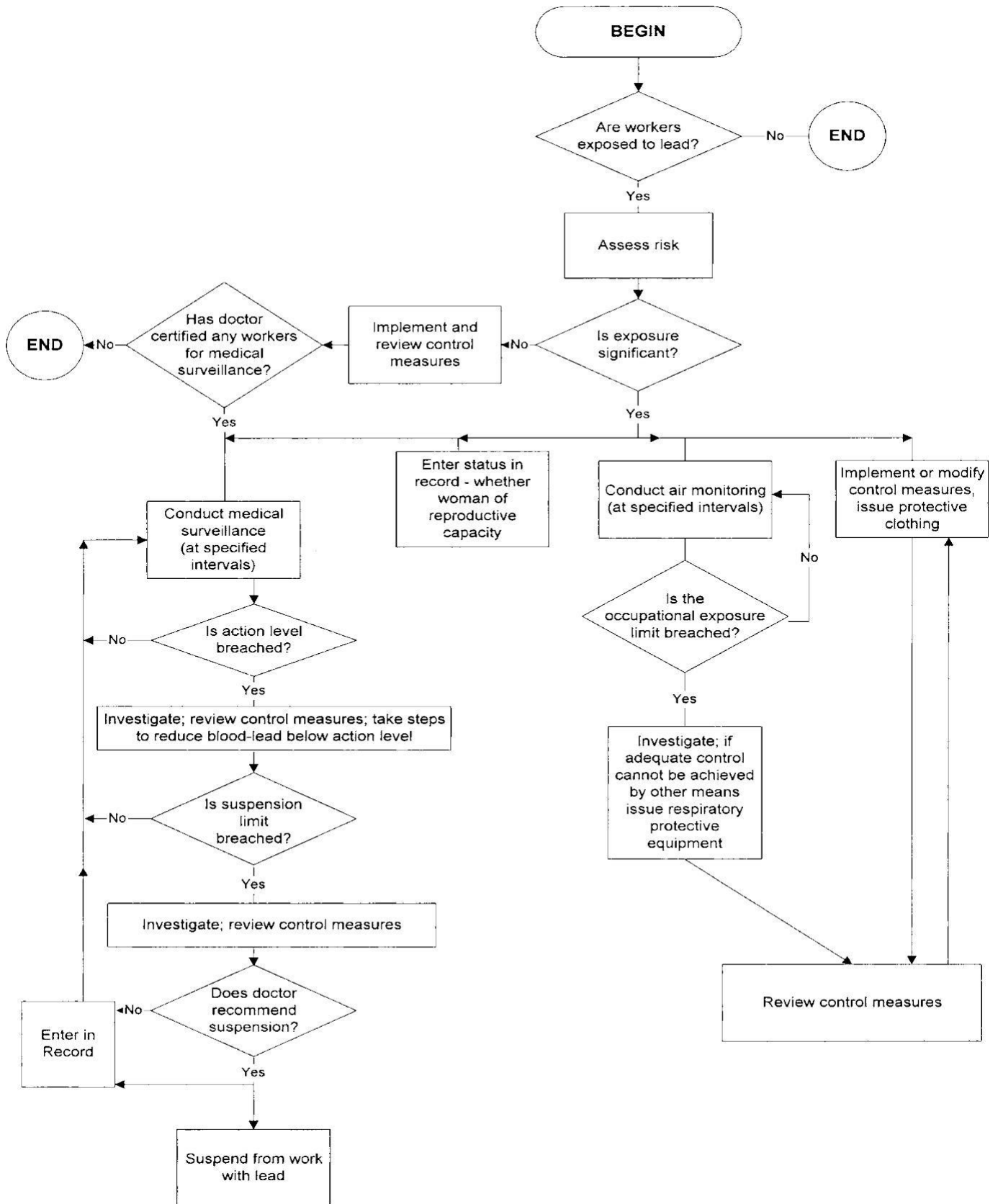
The Regulations require employers to make a suitable and sufficient assessment of the risks to the health of employees created by the work to include whether the exposure of any employees to lead is liable to be significant identify and implement the measures to prevent or adequately control that

exposure and record the significant findings of the assessment as soon as is practicable after the assessment is made.

An employee's exposure to lead is significant if one of the following three conditions is satisfied, exposure exceeds half the occupational exposure limit for lead or there is a substantial risk of the employee ingesting lead or if there is a risk of an employee's skin coming into contact with lead alkyls or any other substance containing lead in a form, eg lead naphthenate, which can also be absorbed through the skin. If exposure is liable to be 'significant', all the regulations will apply, in particular the need to issue employees with protective clothing monitor lead-in-air concentrations and place the employees under medical surveillance.

There is not necessarily a strong relationship between the amount of lead the body absorbs and the concentration of lead-in-air. Consequently, employees whose exposure to lead is significant must be placed under medical surveillance. Regular biological monitoring of the level of the lead in their blood or urine (for work with lead alkyls) can detect any absorption of lead before clinical effects become evident. The Regulations contain biological monitoring indicators to help employers evaluate the effectiveness of their control measures in keeping lead in blood or urine levels at acceptable concentrations.

Lead Workers Assessment Process



10.1 Action Levels

These are concentrations of lead in blood set below the appropriate suspension limit. If these are reached or exceeded, the employer must carry out an urgent investigation to find out why, review control measures and take steps to reduce the employee's blood-lead concentration below the action level, so far as is reasonably practicable.

10.2 Suspension Levels

These are concentrations of lead in blood or urine at which employees are normally taken off work which exposes them to lead, to prevent the risk of lead poisoning.

The Regulations place a duty on employers to provide employees with suitable and sufficient information, instruction and training. The information to be given to employees includes:

- (a) the possible risks to health of exposure to lead;
- (b) details of the appropriate occupational exposure limit for lead, the action level and suspension level;
- (c) the results of the employer's assessment of the work;
- (d) the appropriate precautions and actions they should take to protect themselves and other employees from exposure to lead; and
- (e) the results of any air monitoring and health surveillance that relate to them personally.

This information will enable employees to comply with the duties the Regulations place on them. These duties include making full and proper use of measures to control exposure to lead. This includes any equipment and the facilities the employer provides for that purpose.

The table below lists laboratories that have made their performance in the UK National External Quality Assessment Scheme (UK NEQAS) known to the Health and Safety Executive (HSE). These laboratories are available to perform blood lead analyses.

HSE Medical Inspectors and appointed doctors are expected to use one of the laboratories on the list for measurement of blood lead under the Control of Lead at Work Regulations 2002 List as of June 2014.

List of HSE Approved Laboratories

Laboratory	Location	Telephone number
Synergy Health Laboratory	Abergavenny	01873 856 688
Royal Victoria Hospital	Belfast	02890 633002
Trace Laboratories	Birmingham	0121 442 4103
Glan Clwyd Hospital	Bodelwyddan	01745 553 4202
Royal Sussex County Hospital	Brighton	0127 369 6955 ext 4151
Southmead Hospital	Bristol	0117 323 5554
Health and Safety Laboratory	Buxton	0129 821 8437
University Hospital of Wales	Cardiff	02920 745814
Health in Business Ltd	Ellesmere Port	0151 348 5678
Glasgow Royal Infirmary	Glasgow	0141 211 4638
Royal Surrey County Hospital	Guildford	01483 464121
Hull Royal Infirmary	Hull	0148 260 7821
St James's University Hospital	Leeds	0113 392 7886
Queen's Medical Centre	Nottingham	0115 924 9924
Charing Cross Hospital	London	0208 383 5922
Kings College Hospital	London	0203 299 3856
Prince Charles Hospital	Merthyr Tydfil	0168 572 1721 ext 8262
Medical Toxicology Research Centre	Newcastle Upon Tyne	0191 222 7015
RPS Laboratories	Salford	0161 874 1553
Northern General Hospital	Sheffield	0114 271 4243/4928
Sandwell DGH	West Bromwich	0121 507 3520

11. DUST

Dusty or fume-laden air can cause lung diseases, eg in welders, quarry workers or woodworkers.

Construction Dust is a general term used to describe what may be found on a construction site. There are three main types:

- **Silica dust** – Silica is a natural mineral present in large amounts in things like sand, sandstone and granite. It is also commonly found in many construction materials such as concrete and mortar. The silica is broken into very fine dust (also known as Respirable Crystalline Silica or RCS) during many common tasks such as cutting, drilling and grinding.
- **Non-silica dust** – There are a number of construction products where silica is either not found or present in very low amounts. The most common ones include gypsum, cement, limestone, marble and dolomite. This dust is also mixed with silica dust when cutting things like bricks.
- **Wood dust** – Wood is widely used in construction and is found in two main forms; softwood and hardwood. Wood-based products are also commonly used including MDF and chipboard.

The main dust related diseases affecting construction workers are:

- **Lung cancer**
- **Silicosis**
- **Chronic Obstructive Pulmonary Disorder (see also Chronic obstructive pulmonary disease (COPD))**
- **Asthma**

HSE research has estimated that silica may be responsible for the deaths of over 500 people each year who have worked in construction. HSE also estimates that around 4,000 people die every year from COPD linked to work. Construction workers are one of the at-risk groups within this because of the dust that they breathe. While some of lung disease like advanced silicosis can come on quite quickly, most take a long time. Often this is over years. They happen because during this time regularly breathing even small amounts of dust adds up and damages the lungs and airways.

The Control of Substances Hazardous to Health (COSHH) Regulations sets a limit on the amount of these dusts that you can breathe (called a Workplace Exposure Limit or WEL). This limit is the legal maximum after the right controls have been used.

Health surveillance may include:

- Health and working history questionnaires;
- Lung function tests;

Chest X-rays (these will only be undertaken if the doctor feels they are necessary)
. Decisions on the appropriate form of health surveillance may require the advice of an occupational health professional. The precise form of health surveillance will depend on the particular circumstances of exposure (level, frequency and duration) identified by the risk assessment.

12. NOISE

Noise is part of everyday life, but too much noise can cause permanent and disabling hearing damage. This can be hearing loss that gets worse over time, damage caused by sudden, extremely loud noises, or tinnitus (permanent ringing in the ears).

The Control of Noise at Work Regulations set the level at which hearing protection and hearing protection zones must be provided.

Health surveillance may include:

- Health and working history questionnaires
- Hearing tests

13. VIBRATION

Vibration can cause long-term painful damage to hands and fingers (Hand Arm Vibration Syndrome) and shocks and jolts from driving certain types of vehicles can cause severe back pain (Whole Body Vibration).

The Control of Vibration at Work Regulations requires the risks from vibration to be controlled.

13.1 Hand Arm Vibration Syndrome

(HAVS) is preventable, but once the damage is done it is permanent.

HAVS is serious and disabling, and nearly 2 million people are at risk. Damage can include the inability to do fine work and cold can trigger painful finger blanching attacks.

Health surveillance checks for hand-arm vibration are to prevent employees developing an advanced stage of HAVS associated with disabling loss of hand function. It is possible that employees who are exposed to vibration may have mild symptoms of HAVS and not be aware that they have the disease, health surveillance can help them to recognise that the first symptoms of HAVS have started to develop.

The best approach to health surveillance for HAVS involves working through a number of stages as follows:

- **Tier 1**
A short questionnaire used as a first check for people moving into jobs involving exposure to vibration. The replies to the questionnaire will indicate whether they need to be referred to Tier 3 for a HAVS health assessment.
- **Tier 2**
A short screening questionnaire issued once a year to employees exposed to vibration risks to check whether they need to be referred to Tier 3 for a HAVS health assessment.
- **Tier 3**
A HAVS health assessment carried out by an occupational health nurse. If the assessment shows that the employee has HAVS, Tier 4 will apply.
- **Tier 4**
A formal diagnosis carried out by a doctor qualified in occupational health. The doctor will advise on the employee's fitness for work.
- **Tier 5**
A referral of the employee for certain tests for HAVS. The results may help the doctor assess fitness for work.

13.2 Whole-body Vibration

Whole Body vibration (WBV) is transmitted through the seat or feet of employees who drive mobile machines, or other work vehicles, over rough and uneven surfaces as a main part of their job. Large shocks and jolts may cause health risks including back-pain.

A simple system of health monitoring for employees whose jobs carry a higher than average risk of back pain is all that is required.

This may include:

- Identify vulnerable individuals and groups of workers
- Health and working history questionnaires for people moving into jobs involving exposure to vibration
- A short screening questionnaire issued once a year to employees exposed to vibration risks
- Refer employees with back problems to an occupational health service provider.

14. MUSCULOSKELETAL DISORDERS

The term MSD covers any injury, damage or disorder of the joints or other tissues and includes upper limb disorders (ULDs) lower limb disorders (LLDs) repetitive strain injury and carpal tunnel syndrome (CTS).

Heavy manual labour, awkward postures, manual materials handling, and previous or existing injury are all risk factors in developing MSDs.

Manual handling is one of the most common causes of injury at work and causes over a third of all workplace injuries which include work related MSDs such as upper and lower limb pain/disorders, joint and repetitive strain injuries of various.

The Manual Handling Operations Regulations provide legislation governing acceptable limits.

Poor posture and inadequately designed workplaces contribute to the causes of MSDs. The Health and Safety (Display Screen Equipment) Regulations, The Management of Health and Safety at Work Regulations and The Provision and Use of Work Equipment Regulations provide legislation governing the requirements to provide adequate places of work.

It may not be possible to prevent all cases of musculoskeletal disorders (MSDs) but there are actions that can be taken to help prevent symptoms occurring or getting worse. Health monitoring rather than health surveillance, is an informal, non-statutory method of surveying a workforce for symptoms of ill health, including lower back pain. This type of occupational health management system can enable an employer, to be aware of health problems and intervene to prevent problems being caused or made worse by work activities.

15. SKIN DISORDERS

Certain substances such as some mineral oils contain polycyclic hydrocarbons which can cause skin cancer.

Metalworking fluids can grow bacteria and fungi which cause dermatitis and asthma. Wet working, eg cleaning, can cause dermatitis.

Prolonged contact with wet cement in construction can lead to chemical burns and/or dermatitis. Benzene in crude oil can cause leukaemia.

Many other products or substances used at work can be harmful, such as paint, ink, glue, lubricant, detergent.

If the Material Safety Data Sheet (MSDS) or other information, shows there is a problem with health when using a certain substance, such as dermatitis, employees may need special health checks. The most common checks are for respiratory disease such as asthma and skin disease.

16. STRESS

Work related stress develops because a person is unable to cope with the demands being placed on them. Stress, including work related stress, can be a significant cause of illness and is known to be linked with high levels of sickness absence, staff turnover and other issues such as more errors. Stress can hit anyone at any level of the business and research shows that work related stress is widespread and is not confined to particular sectors, jobs or industries.

The HSE has designed the Management Standards approach to help employers manage the causes of work-related stress. It is based on the familiar 'Five steps to risk assessment' model, requiring management and staff to work together. The Standards refer to six areas of work that can lead to stress if not properly managed. More information is available from the HSE's stress website: www.hse.gov.uk/stress.

17. SAFETY CRITICAL WORKERS FITNESS FOR TASK ASSESSMENT

People who operate or control plant (signallers) and workers who work at height have the potential to injure both themselves and other people in the workplace and the surrounding area. Ensuring that such workers are medically fit to their tasks is an issue for employers who have a duty to ensure that any employee is physically and mentally capable of undertaking the tasks they are required to carry out. Others in the construction sector, such as Principal Contractors will also have an interest in ensuring that these people have an appropriate level of fitness.

For the assessment of medical fitness of workers to be effective it is essential that the Occupational Health Service Provider (OHSP) carrying out the assessment is fully aware of the specific requirements of the job that the individual worker is required to do. This will enable the assessment to be both relevant and efficient.

Attention to the medical fitness of a worker at the recruitment stage and the need to be fair and objective at every stage to avoid discrimination, even inadvertently, to ensure that the requirements of the Equality Act are observed must be carefully considered .

The assessment of medical fitness to carry out safety critical tasks will have a significant positive impact on the relationship between an employer and employees. Consultation and involvement of employees in the process will aid in achieving a positive outcome.

Employees have a duty to inform employers of any changes in health or fitness that may affect their ability to perform their duties safely.

The starting point is analysis of the job to be carried out and if applicable, the specific requirements for operating the particular type of construction plant to be operated. A description of the item of plant should be drawn up together with a list of the characteristics that are essential to the safe operation of the machine. The list of characteristics is made up of core characteristics which apply to the operation of all plant, task and machine specific characteristics. (Characteristics are referred to in the Equality Act as "occupational requirements").

1. Operator's ability to get across construction site;
2. Climb steps/ladders to degree required to access/egress operating positions of plant;
3. Control machine accurately using standard manufacturer-fitted controls;
4. See with sufficient acuity (with corrected vision if required) to accurately carry out the range of tasks expected in the time available
5. Hear with sufficient acuity (with hearing aids if required) to be given instructions and react to warnings
6. Carry out pre-use checks e.g. walking, bending, looking, accessing covers.
7. Lift and shift heavy loads such as ancillary equipment to prepare plant for use, to degree required;
8. Comfortable working at height;
9. Comfortable with long periods of isolation and sitting in the cab;
10. Able to concentrate and stay aware for long periods;
11. Operator ability to exit cab in emergency;
12. Operator ability to exit restricted worksite in emergency;
13. Operator within weight and size parameters specified by machine manufacturer;
14. Balance.

It is recommended that full re-assessment of fitness for safety critical workers is set at a fixed periodic review, after first assessment, of three years, unless otherwise advised by the OHSP. Reassessment of fitness for people with any substantial change in medical circumstances is also recommended. Such an assessment need only address the specific change in those medical circumstances, with full re-assessment when next scheduled. It is also helpful for employees to fill in a self-declaration questionnaire every year. These should be reviewed by a competent person and any concerns raised with the OHSP.

One of the purposes of medical fitness assessments for safety critical workers is to be able to demonstrate to those awarding contracts that the workers are medically fit to undertake the tasks they are asked to do. When providing this evidence it is important that employers ensure that data protection and patient confidentiality requirements are observed. Any statement of fitness should confine itself to the fact that the employee has been assessed by the OHSP and found to be medically fit to carry out the specific task assigned to them.

Appendices

The following Risk Assessments and Occupational Health Surveillance forms can be found on the BSG Hub in the Health and Safety Documents section.

Risk Assessments:

- 702 Contact Dermatitis
- 704 Exposure to Noise
- 705 Exposure to Sewage
- 706 Exposure to Silica Dust
- 707 HAVS
- 708 Manual Handling Operations
- 709 Stress
- 710 Sun Protection
- 711 Working with Lead

Occupational Health Surveillance Forms:

- HS1 Construction Site 1
- HS2 Construction Site 2
- HS3 Office
- HS4 Stress
- HS5 Visitor to Site
- HS6 Safety Critical Workers Assessment – Form 1
- HS7 Safety Critical Workers Assessment – Form 2
- HS8 Occupational Health Materials Register
- HS9 Task Hazard Register
- HS10 Plant and Tools Register