



# **Health and safety of homeworkers: Good practice case studies**

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# **Health and safety of homeworkers: Good practice case studies**

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Health and Safety Executive (HSE) guidance on homeworking has been in existence since 1996. However, findings from a study conducted by the Health and Safety Laboratory (HSL) (O'Hara, 2002) indicate that both homeworkers and employers have not seen the guidance and are not familiar with health and safety legislation relevant to homeworking. HSE has stated that the existing homeworking guidance is now due for revision (Dempsey, 2001). The aim of this project was to provide case study examples of good practice in addressing health and safety issues, which could be incorporated into any revision of the HSE guidance on homeworking.

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## **EXECUTIVE SUMMARY**

Health and Safety Executive (HSE) guidance on homeworking has been in existence since 1996. However, findings from a study conducted by the Health and Safety Laboratory (HSL) (O'Hara, 2002) indicate that both homeworkers and employers have not seen the guidance and are not familiar with health and safety legislation relevant to homeworking. HSE has stated that the existing homeworking guidance is now due for revision (Dempsey, 2001). The aim of this project was to provide case study examples of good practice in addressing health and safety issues, which could be incorporated into any revision of the HSE guidance on homeworking.

### **OBJECTIVES**

The objectives of the project were:

- To obtain examples of good practice in addressing health and safety in homeworking from employers and homeworkers across four different sectors/activities.
- To obtain information on any difficulties encountered in addressing health and safety for homeworkers and how these have been overcome.
- To obtain information on the impact of any health and safety measures.
- To supplement these examples of good practice (if necessary) with additional information on appropriate measures to reduce risk (e.g. from relevant HSE guidance, information on safety equipment, etc.).
- To provide a written report describing 12 comprehensive case studies, which illustrate good practice in addressing health and safety in homeworking across different sectors.

### **METHODOLOGY**

Using a semi-structured interview methodology, examples of good practice in addressing health and safety in homeworking were collected from four different industry sectors: textiles; packing/assembly/finishing; electrical & electronic; and business services and computing. In total, 12 organisations were visited, and 28 homeworkers were interviewed along with a range of owners, directors and health and safety managers.

The key topics that were addressed in the interviews included: identifying hazards; who is at risk; what measures have been taken to reduce the risk; what information, training and equipment homeworkers have been provided with; impact on the health and safety of homeworkers; employers' motivation to address health and safety and any difficulties encountered.

### **MAIN FINDINGS**

The findings from the 12 organisations visited reveal a range of examples of good practice in managing health and safety for homeworkers, which are consistent with published HSE guidance. The findings also reflect a fundamentally developmental process in achieving successful health and safety management for homeworkers, with participating organisations being at different stages of development. Many organisations, while having elements of good practice, also have scope for further development.

A summary of good practice in health and safety management for homeworkers across all four industrial sectors addresses: Sources of Health and Safety Information, Communication, Risk Assessment, Equipment Provision and Maintenance, Organisation, Information, Training, Incident Reporting, Difficulties, and Benefits of Addressing Health and Safety for Homeworkers. Key findings presented in this summary include:

- It is important that homeworkers have one or two key contacts within the organisation for maintaining regular communication. A number of companies had outwork co-ordinators specifically to deal with homeworkers. The identity of the outwork co-ordinator was reinforced by using their photograph on documentation and notice boards for homeworkers, as well as promoting the use of a dedicated telephone line and voice mail by which the outwork co-ordinator could be contacted.
- It is good practice to conduct risk assessments that are specific to each homeworker's work environment, and involve the homeworker in the process of identifying potential hazards. Companies that have carried out risk assessments for individual homeworkers have addressed a range of significant hazards in the home workplace (e.g. electrical; manual handling; chemicals; ventilation; lone working/isolation), and include potential hazards that would not normally be found in a workplace such as pets.
- Regular reviews of risk assessments should be carried out to ensure that there have been no significant changes. One organisation provides homeworkers with a home workplace inspection form to conduct their own risk assessment on a monthly basis. Similar reviews are also scheduled to be carried out on a three monthly basis by the homeworker's team leader. Risk assessments are also reviewed if the homeworker's circumstances change, such as pregnancy or a house move.
- Providing and maintaining work equipment can help to ensure that homeworkers work safely as well as efficiently. Many companies go beyond providing the essential work materials and tools required to do the job. Additional equipment includes: tables; chairs; desk lamps; circuit breakers; smoke detectors; machine guards; masks; gloves; and first aid kits.
- A lot of emphasis is put on supplying information to homeworkers, but it is also important to supply information on managing homeworkers to line management. Types of information that are useful include: competencies involved; how to manage high levels of trust and low levels of control; how to empower staff to work independently; information to help line managers support homeworkers and avoid potential consequences of lone working such as stress or isolation; and the setting of clear goals.
- Any incidents affecting homeworkers need to be communicated to, and recorded by employers. This includes accidents and any 'near miss' occurrences. One company provides its homeworkers with a diary to record their hours worked and any problems or 'near miss' occurrences (e.g. breaking needle). These homeworkers are also provided with a dangerous occurrence/near miss report form and an accident report form.
- A grey area exists for the health and safety management of homeworkers over the demarcation of health and safety responsibilities between the company and the homeworker, especially as the homeworker's property becomes the work environment. Several companies draw a plan or take a photograph of the area that is used for work, in order to demarcate the area of the property for which the risks will be assessed.

- Companies employing homeworkers felt that addressing the health, safety and welfare of homeworkers contributes to a higher level of commitment and makes them feel valued. It also helps to ensure safe working practices and avoids the potential costs of interruptions to work output from ill-health or injury.



# 1 INTRODUCTION

Health and Safety Executive (HSE) guidance on homeworking has been in existence since 1996. However, findings from a study conducted by the Health and Safety Laboratory (HSL) (O'Hara, 2002) indicate that both homeworkers and employers have not seen the guidance and are not familiar with health and safety legislation relevant to homeworking. HSE has stated that the existing homeworking guidance is now due for revision (Dempsey, 2001).

The project detailed in this report obtained examples of good practice in addressing health and safety in homeworking from employers and homeworkers across four different industry sectors: textiles; packing/assembly/finishing; electrical & electronic; and business services and computing. It is envisaged that employers and homeworkers will be able to use this information as a guide when addressing health and safety, in particular, carrying out risk assessments.

The aim of the project was to provide case study examples of good practice in addressing health and safety issues, that could be incorporated into any revision of the HSE guidance on homeworking.

The objectives of the project were:

- To obtain examples of good practice in addressing health and safety in homeworking from employers and homeworkers across four different sectors/activities.
- To obtain information on any difficulties encountered in addressing health and safety for homeworkers and how these have been overcome.
- To obtain information on the impact of any health and safety measures.
- To supplement these examples of good practice (if necessary) with additional information on appropriate measures to reduce risk (e.g. from relevant HSE guidance, information on safety equipment, etc.).
- To provide a written report describing 12 comprehensive case studies, which illustrate good practice in addressing health and safety in homeworking across different sectors.

Section 2 of this report provides background information on homeworking and section 3 details the methodology employed in carrying out the work. Section 4 identifies relevant health and safety regulations, a guide to the hazards for each industrial sector and the case study findings. A summary of good practice from the case studies is presented in section 5. The appendices are presented in section 6. Appendices 3, 4, 5, and 6 present a summary of example risk assessment templates for each of the four industrial sectors. These templates present examples of some of the hazards indicative of each industrial sector, and are intended as an introductory guide and not a fully comprehensive account of the hazards in each industrial sector.

**Employers wishing to increase their knowledge of the health and safety management of homeworkers might wish to read the report in the following order: section 5, followed by the example risk assessment template for their industrial sector, and then the case studies from the relevant industrial sector.**

## 2 BACKGROUND

Working at home is not a new phenomenon. A range of activities such as sewing, packing, assembly, soldering and telesales have traditionally been carried out by homeworkers. While these more traditional forms of homeworking remain widespread, increased use of information technology over the last two decades has added to the numbers of people working at home. Evidence from national data sets such as the Census and Labour Force Survey (LFS) indicate that the numbers of people working at home are increasing. Analysis of LFS data from 1981 and 1998 shows that the numbers working mainly at home have doubled in that period, from 345,920 (1% of the employed workforce) in 1981, to 680,612 (2.5% of the employed workforce) in 1998 (Felstead, Jewson, Phizacklea and Walters, 2000). These figures are likely to be an underestimate as some homeworkers may be reluctant to admit to homeworking. The increase in homeworking would imply an increase in the associated health and safety issues, thus highlighting the need to address the extent to which current legislation and guidance is effective in protecting those involved in homeworking.

HSE has identified the need for additional information about the health and safety problems that may be prevalent for homeworkers. A recent scoping exercise for research into the health and safety of homeworkers conducted by HSL (O'Hara, 2002) identified a range of work-related hazards perceived by homeworkers as causing accidents and ill-health. These included: poor seating; repetitive work; manual handling; sewing machines; cutting tools; and working with substances such as solder, glues and paints. The scoping study provides evidence of work-related accidents affecting homeworkers and others in their home, including children. Thus highlighting an additional health and safety issue, the likelihood that specific factors in the home (such as the presence of children and animals), can turn relatively minor hazards into significant risks. This can mean that health and safety measures introduced for on-site workers (e.g. risk assessments) may not be wholly appropriate for homeworkers.

In 1996 HSE produced a guidance leaflet on homeworking to inform employers and homeworkers of the health and safety issues involved in homeworking. The guidance highlights the fact that under the Health and Safety at Work etc Act 1974 (HSWA) employers have the same obligations to protect the health, safety and welfare of homeworkers who are employees, as they do for employees on-site. Employers also have responsibilities for self-employed workers. If a person working under the control and direction of a company is treated as self-employed for tax and national insurance purposes, they may be treated as an employee for health and safety purposes. Companies may need to take appropriate action to protect them. If a company does not wish to employ workers on this basis, they should seek legal advice as each case can only be decided on its own merits by a court of law. Further information can be found in the HSE guidance booklet on training: 'Health and safety training: What you need to know' (INDG345 Reprinted 6/03 C400. ISBN 0 7176 2137 5) (HSE, 2003).

Although the HSE homeworking guidance has been in existence for over five years, research indicates that awareness of health and safety among homeworkers and employers is quite poor, as is access to health and safety information, equipment and training. Many homeworkers and employers interviewed for the scoping study had not seen the HSE guidance, and were not familiar with health and safety legislation relevant to homeworking. Furthermore, risk assessments were not being carried out (O'Hara, 2002). The HSL scoping study did identify some examples of homeworkers receiving information, training and equipment. One of the scoping study recommendations was that examples of good practice in addressing health and safety for homeworkers could be identified and disseminated more widely to other employers and homeworkers.

HSE has stated that the current homeworking guidance is due for revision (Dempsey, 2001). The development of revised guidance on homeworking could include examples of good practice in health and safety for homeworkers which relate to specific sectors and activities. These examples of good practice could illustrate how employers and homeworkers can identify work-related hazards and appropriate measures to reduce the risk associated with homeworking. It is envisaged that the information from the case studies could be incorporated into revised HSE guidance on homeworking. Employers and homeworkers could use the information as a guide when addressing health and safety, in particular, carrying out risk assessments. It is considered that the information would also be applicable to all homeworkers, regardless of employment status and coverage under health and safety legislation. It would enable self-employed homeworkers and people who work at home intermittently (but are not regular homeworkers) to assess the risks associated with their activities, and help them to identify ways of reducing these risks.

## 3 METHOD

### 3.1 IDENTIFICATION OF SECTORS

The study targeted two main sectors, which the HSL scoping study has indicated account for a high proportion of homeworkers; manufacturing and business services. Nine of the case studies will be from the manufacturing sector and the other three from business services. The following list of sub-sectors and activities also detail some of the associated hazards:

1. **Textiles/Sewing:** Dust, fibres and chemically treated fabrics causing respiratory and skin irritation. Needle injuries. Vibration, noise, poor seating and lighting causing muscular strain, eye strain, and headaches.
2. **Packing/Assembly/Finishing:** Because of the vast variety of activities that this sector can include, a range of hazards and health problems are involved. It is generally repetitive work, which can involve heavy lifting, dust, and working with glues and paints (e.g. packing cards, trimming and assembling rubber and plastics, wire bending). Typical injuries and health problems include upper limb-pain (especially in the hands and fingers), muscular strain, eye strain, respiratory and skin irritation, headaches and nausea due to vapours in some products.
3. **Electrical and Electronics:** A notable hazard is that posed by the use of rosin solder flux, a known cause of occupational asthma. The repetitiveness and close inspection required can also lead to muscular and eye strain.
4. **Business services/Working with computers:** Muscular strain, eye strain and headaches due to incorrect workstation set-up.

### 3.2 RECRUITMENT OF SAMPLE: HOMEWORKERS AND EMPLOYERS

Information for each case study was obtained from interviews with suppliers of homework and homeworkers. For each of the case studies, information was gathered from three employers and up to nine homeworkers. Recruitment of half the case study participants (homeworkers and employers) was carried out with help from Temple Consulting Ltd, who have previously assisted HSL in carrying out a scoping exercise for research into the health and safety of homeworkers. Recruitment of the remaining half of the case study participants was conducted by HSL researchers, using industry and intermediary databases and existing contacts. The initial strategy entailed contacting employers in order to identify examples of good practice, and to arrange to visit the employer to obtain more evidence of how the company deals with health and safety for its homeworkers. Access to homeworkers was obtained via the employers contacted.

### 3.3 DATA COLLECTION: CASE STUDY VISITS

Interviews were conducted on a one to one basis with homeworkers and representatives from companies employing homeworkers. Visits were conducted by two HSL researchers, alternating between questioner and note-taker. The presence of two researchers allowed comparison of information from two perspectives. This approach had previously been adopted in HSL work examining good practice in risk assessment (O'Hara, Dickety and Weyman, 1999). The homeworkers were interviewed in their own time, rather than their employer's time, and a financial incentive of £20 was provided in each case.

The format of the interviews was semi-structured in that there was a range of topics to cover, but the exact questions and order were not fixed. The key topics that were addressed included: identifying hazards; who is at risk; what measures have been taken to reduce the risk; what information, training and equipment homeworkers have been provided with; impact on the

health and safety of homeworkers; employers' motivation to address health and safety and any difficulties encountered. The question set for the interviews is presented in appendix 1.

In total, 12 organisations were visited, and 28 homeworkers were interviewed along with a range of owners, directors and health and safety managers. Table 1 provides a summary of participating organisations by sector, activity, size and people interviewed.

**Table 1** Participating organisations by activity, size<sup>1</sup> & staff interviewed

<i>Sector</i>	<i>Activity</i>	<i>Size</i>	<i>Staff interviewed</i>
Textiles/sewing	Sewing soft furnishings	Large	Health and safety manager; production manager; & 3 homeworkers
Textiles/sewing	Sewing men's hats	Small	Owner & 1 homemaker
Textiles/sewing	Manufacture of socks	Small	Director (H&S officer), and 1 homemaker
Packing/assembly/finishing	Domestic ironing service	Small	Owner
Packing/assembly/finishing	Manufacture of greeting cards	Medium	Health, safety and environment manager, Outwork co-ordinator, and 6 homeworkers
Packing/assembly/finishing	Manufacture of lampshades	Medium	Production manager, 2 homeworkers
Electrical and electronics	Manufacture of electronic components	Medium	Health and safety officer, and 4 homeworkers
Electrical and electronics	Manufacture of PCBs	Small	Procurement manager, Production manager, and 1 homemaker
Electrical and electronics	Electrical assembly & soldering	Small	2 homeworkers
Business services/administration	Local authority	Large	3 homeworkers
Business services/administration	Telecommunications	Large	3 homeworkers
Business services/administration	Utilities	Large	Health and safety manager, and 2 homeworkers

### 3.4 ANALYSIS OF DATA

Findings from interviews with homeworkers and employers were combined and written up as individual case studies for each of the four sectors. The case studies have also been supplemented with additional information regarding appropriate measures to reduce risk (e.g. from relevant HSE guidance, information on safety equipment, etc.). This information provides examples of good practice that can be used as a guide for both homeworkers and employers.

<sup>1</sup> Small businesses are defined as those employing less than 50 people, medium businesses are defined as employing between 51 and 250, and large businesses as those employing more than 250 people. This definition was chosen as it corresponds with the EU definition of SMEs.

## 4 CASE STUDIES

The following information on managing health and safety for homeworkers is presented in three sections: 1) Health and safety law that applies to homeworkers; 2) Significant hazards connected with the four industrial sectors and relevant health and safety regulations; and 3) Examples of the measures companies engaging homeworkers have taken to protect the health, safety and welfare of their homeworkers.

### 4.1 HEALTH AND SAFETY LAW

Table 2 presents a list of the health and safety regulations relevant to homeworking. This list is intended as a guide and is not fully comprehensive, as there may be other health and safety regulations that apply to specific circumstances. Further details of the health and safety regulations in the overview are given in appendix 2. Relevant HSE guidance available in relation to each of the regulations is also identified.

**Table 2** Examples of Health and Safety Regulations relevant to homeworking

<i>Title of Health and Safety Regulation</i>
The Health and Safety at Work, etc Act (HSWA) 1974 (HSE, 1990 a)
The Management of Health and Safety at Work Regulations 1999 (HSE, 2000 a)
The Control of Substances Hazardous to Health Regulations (COSHH) 2002 (HSE, 2002 a)
The Manual Handling Operations Regulations 1992 (HSE, 1998 b)
The Noise at Work Regulations 1989 (HSE, 1998 c)
The Health and Safety (Display Screen Equipment) Regulations 1992 (as amended in 2002) (HSE, 2003 c)
The Provision and Use of Work Equipment Regulations 1998 (HSE, 1999 b)
The Personal Protective Equipment at Work Regulations 1992 (HSE, 1992 a)
The Health and Safety (First Aid) Regulations 1981(HSE, 2002 c)
The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (RIDDOR) (HSE, 1999 c)
The Safety Representatives and Safety Committees Regulations 1977 (HSE, 1996 a)
The Health and Safety (Consultation with Employees) regulations 1996 (HSE 1996 b)
The Electricity at Work Regulations 1989 (HSE, 1989)
The Workplace (Health, Safety and Welfare) Regulations 1992 (HSE, 1992 b) (relevant when homeworkers visit the employer's work premises)

### 4.2 TEXTILES/SEWING:

#### 4.2.1 Significant hazards and relevant regulations

The following provides a brief guide to some of the significant hazards you could reasonably expect to cause harm within the textiles and sewing sector. Some possible health and safety consequences of these hazards are identified, as well as persons who may be at risk. A number of potential control measures to reduce the risk of somebody being harmed are also identified. This information is intended as a guide, and there may be additional hazards and control measures that need to be considered.

*Hazard* means something that can cause harm.

*Risk* is the chance, high or low, that somebody will be harmed by the hazard.

### Hazard: Sewing machines

#### *Who may be affected:*

- Homeworker; family members; visitors; consider vulnerable persons (e.g. young children).

#### *Consequences/How affected:*

- Needles injuries; trapped fingers; upper limb strain from seating position, repetitive movement and/or vibration; hearing problems from excessive noise.

#### *Control measures:*

- Machines provided are suitable for their intended purpose;
- Use and maintenance of machines is restricted to designated, competent persons, who have received adequate training;
- Machines are checked regularly and kept in a condition that does not cause harm;
- Needle guards are provided (and used) that are adjusted for each individual homeworker's finger size;
- Belts and pulley drives are guarded;
- Provision of suitable seating;
- Adequate lighting is provided that remains on when the sewing machine motor is switched off, e.g. for safe threading;
- The safe system of work specifically mentions removing the feet from the treadle when threading and changing needles;
- Homeworkers follow a system of switching off power when carrying out adjustments and needle changing;
- Provision of anti-vibration mats to reduce vibration and noise;
- Homeworkers should take regular breaks.

#### *Relevant Regulations:*

The Provision and Use of Work Equipment (PUWER) Regulations 1998 (HSE, 1999 b).

The Personal Protective Equipment Regulations 1992 (HSE, 1992 a).

### Hazard: Electricity

#### *Who may be affected:*

- Homeworker; family members; visitors; consider vulnerable persons (e.g. young children).

#### *Consequences/How affected:*

- Electric shock or fire.

#### *Control measures:*

- Ensure domestic electrical system is adequate for the electrical equipment provided (e.g. sewing machines, lamps);
- Plugs are correctly wired and maintained;
- Leads, wires and cables are appropriately covered and not damaged;
- Plugs, leads, wires and cables are checked regularly and kept in a condition that does not cause harm;
- Circuit breakers are installed;
- Smoke detectors are provided.

#### *Relevant Regulations:*

The Electricity at Work Regulations 1989 (HSE, 1989).

Hazard: Manual handling of raw/finished materials

*Who may be affected:*

- Homeworker; family members; consider vulnerable persons (e.g. new or expectant mothers).

*Consequences/How affected:*

- Musculoskeletal strain or injury, particularly to the back.

*Control measures:*

- Avoid heavy, bulky loads or materials;
- Improve workplace layout to increase efficiency and reduce carrying distances;
- Avoid repetitive handling. Vary the work to allow one set of muscles to rest while another is used;
- Provision of suitable flooring. Avoid steps and steep ramps;
- When lifting is necessary, homeworkers must be informed, instructed and trained in good techniques to help reduce the risks;
- Provide lifting aids (e.g. trolleys).

*Relevant Regulations:*

The Manual Handling Operations Regulations 1992 (HSE, 1998 b).

Hazard: Homeworkers visiting site

*Who may be affected:*

- Homeworkers; visitors; on-site employees.

*Consequences/How affected:*

- Intermittent influx of large numbers of homeworkers to the work site leading to crowding and increased risk of manual handling injuries, slips and trips and inappropriate safety behaviour.

*Control measures:*

- The use of dedicated entrances for homeworkers to enter the work site;
- Operation of appointments system to limit numbers of homeworkers on site at one time;
- Clear markings and demarcation of areas within which homeworkers must stay on site;
- Appoint on-site employees to assist homeworkers delivering and picking up work; and
- The use of raised loading bays to aid homeworkers when delivering or picking up work in their cars.

*Relevant Regulations:*

Workplace (Health, Safety and Welfare) Regulations 1992 (HSE, 1992 b).

The Manual Handling Operations Regulations 1992 (HSE, 1998 b).

Hazard: Slips, Trips and Falls

*Who may be affected:*

- Homeworker; family members; consider vulnerable persons (e.g. new or expectant mothers, young children).

*Consequences/How affected:*

- Physical injury.

*Control measures:*

- Keep work areas tidy and clear of obstructions or objects lying around that may cause person to trip. Clean spills up immediately;
- Provision of appropriate storage cupboards/containers;
- Arrange furniture in order to avoid trailing wires;
- Ensure mats are securely fixed and do not have curling edges;
- Try to avoid changes of level;
- Ensure suitable footwear;
- Ensure adequate lighting.

*Relevant Regulations:*

Management of Health and Safety at Work Regulations 1999 (HSE, 2000 a).

Hazard: Chemically treated materials

*Who may be affected:*

- Homeworker; family members; consider vulnerable persons (e.g. new or expectant mothers, young children, persons with conditions such as asthma or skin problems).

*Consequences/How affected:*

- Possible breathing difficulties and/or skin irritation.

*Control measures:*

- Avoid use of treated materials;
- Replace hazardous materials with less hazardous ones;
- Ensure adequate ventilation;
- Supply personal protective equipment (PPE) such as masks, gloves or overalls;
- Inform/train homeworkers about the materials, risks and precautions;
- Exposure monitoring or health surveillance as required by COSHH 1999 regulations.

*Relevant Regulations:*

The Control of Substance Hazardous to Health (COSHH) Regulations 1999 (HSE, 2002 a).

Hazard: Isolation

*Who may be affected:*

- Homeworker.

*Consequences/How affected:*

- Stress and depression.

*Control measures:*

- Regular face to face contact between company representatives and homeworker;
- Same information and support for homeworkers as on-site workers, including information on social events;
- Facilitate communication with other homeworkers and on-site workers;
- Homeworkers should take regular breaks.

*Relevant Regulations:*

Management of Health and Safety at Work Regulations 1999 (HSE, 2000 a).

Additional hazards:

Additional hazards that may be appropriate to consider include dust and fibres from materials, which can cause skin and breathing problems. Control measures may include PPE such as masks, gloves, overalls and the use of an industrial vacuum cleaner and specialised filter.

## **4.2.2 Examples of Health and Safety for homeworkers**

This section presents the findings from interviews with three companies in the textiles sector regarding the health and safety management of homeworkers.

### **4.2.2.1 Company A: Sewing of Soft Furnishings**

#### **1. Background:**

Company A is a large organisation employing 15 homeworkers as sewing machinists in the production of soft furnishings (e.g. cushions, or chair and sofa covers) as part of its furniture manufacturing business. Homeworking was introduced as a way of retaining experienced staff that would otherwise have left because of childcare commitments. Homeworkers are all long-standing employees who have previously worked on-site.

Homeworkers are contracted to work a fixed number of hours, between 21 and 39 hours per week. They have the same employment entitlements as on-site workers (e.g. holiday pay, sick pay, maternity leave) and receive the same hourly rate of pay, which is based on the length of time calculated to complete specific jobs. The rate of pay is above the minimum wage. The company operates a compensation scheme to ensure homeworkers are not penalised if sewing machines break down. Homeworkers are also guaranteed payment for 21 hours, regardless of availability of work. Both the company and the homeworkers are satisfied that they are guaranteed a regular supply of work, and for homeworkers an associated regular income. Homeworkers indicated that they space their work across the week and work at most eight hours a day. They consider the main advantage of homeworking to be the flexibility to work around childcare commitments. An additional benefit for the company of this flexibility is that it enables homeworkers to adjust their workload when they have minor ailments rather than taking time off sick.

The company also provides work for three self-employed homeworkers who have chosen not to become employees. Raw materials, cloth, threads, and zips are provided, but the homeworkers have to supply their own equipment as well as collecting and delivering their work. They are free to work for other companies. For the purposes of this case study any further reference to homeworkers relates only to the 15 persons who have employee status.

#### **2. Equipment:**

The company provides and maintains the following equipment for homeworkers:

- Sewing machine (including table and lamp)
- Needle guard
- Circuit breaker
- Chair
- Bench or cupboard (one worker was provided with a made to fit bench)
- Rubbish receptacle
- Raw materials (e.g. cloth, threads)
- First aid kit
- Diary to record hours worked and any occurrence/near miss that happens, i.e. breaking needle, nearly putting needle through finger, foreign bodies. Occurrences are usually needle related

- Masks and gloves are provided if requested.

Maintenance of equipment is carried out by an on-site mechanic or contract company who visit the worker's home. Portable appliance testing (PAT) is carried out annually for electrical equipment.

### 3. Health and safety management:

The company employs a full-time health and safety manager who has obtained a NEBOSH diploma. In addressing health and safety for homeworkers he has referred to existing health and safety management systems for on-site machinists as well as the HSE website and literature, including the HSE leaflet 'Homeworking: Guidance for employers and employees on health and safety'. The company has a documented health and safety policy and a list of health and safety responsibilities for staff at all levels of the organisation, from managing director to employees. Copies of these documents are provided to all homeworkers.

### 4. Risk assessment:

Risk assessments have been carried out by the health and safety manager of each homemaker's workstation and they have been provided with a copy. The risk assessment form includes the following information: work area assessed; reason for assessment; operation details; hazard category; persons at risk; a semi-quantitative risk rating (numbers affected x severity x likelihood); existing controls; further controls required (with deadline); signature of assessor; date the assessment was carried out and review date. Two significant hazards are documented: mechanical/machinery and shock from electrical work equipment. Each hazard has an additional risk assessment:

- The work equipment form provides details of the machine and addresses the safety of the machine (e.g. guarding, and the condition of electrical connections) and whether any additional control measures are needed.
- The machinery hazard identification form addresses who may be at risk; mechanical hazards (e.g. trapping; entanglement; impact; contact with and ejection of needle); non – mechanical hazards (e.g. electrical shock and objects falling from work bench); and existing controls (e.g. guarding; safe working practices and competence of users).

### 5. Training and Information:

Homeworkers have all worked at the factory previously, and have been trained as machinists 'on the job' for three years using an NVQ apprenticeship scheme in conjunction with a local college. The homeworkers are generally provided with written instructions for new designs, though they also have the option of training in the factory or at home. Homeworkers are provided with written health and safety information in a 'Sewing at home safely' document. This one page sheet lists seven key health and safety instructions:

- No person other than the homemaker to use the machine;
- Take extra care if children are present in the home (e.g. switch off and unplug machine);
- Report any defects or safety concerns, and don't use equipment again until told it is safe;
- Report all accidents and near misses;
- Don't lift more than capable of, if it is necessary to move material, do so in small amounts;
- Don't store work bags where they could fall on someone or be pulled down by children;
- Needle guards must always be used.

Homeworkers are also provided with copies of the HSE leaflets 'Health and safety Law: What you should know', and 'Homeworking: Guidance for employers and employees on health and

safety'. This information, along with other documented health and safety information, is provided as part of a health and safety pack in a plastic folder.

#### 6. Communication:

The production manager is the main contact for homeworkers, along with the health and safety manager. One of the homeworkers also acts as a representative for the group. Homeworkers receive copies of the monthly factory briefings and details of social events. They also have regular face-to-face contact with the person who delivers and collects work and can phone other homeworkers if they need to.

#### 7. Incidents and Accidents:

Homeworkers must record any incidents in the diary supplied by the company. They are also provided with forms for recording/reporting incidents and accidents, these are:

- Dangerous occurrence/near miss report form
- Accident report form

Homeworkers are also supplied with a copy of the company's employee liability insurance certificate.

Two examples of where the company has taken action following incidents were identified. The first involved a needle injury to one of the in-house machinists, following which HSE recommended the use of needle guards. The company encountered some resistance from more long standing machinists who didn't want to use the guards. A written directive (in the form of a memo) was circulated to all machinists, including homeworkers, stating that it was company policy to use needle guards at all times. The second example relates to a minor incident in which a homeworke's child put their finger in the machine belt/pulley of the sewing machine. Additional guarding was added to that machine and homeworkers were reminded of the written instruction that children should be kept away from the machines.

#### 8. Health problems:

Two health problems were identified as having been addressed for homeworkers. New chairs were provided in response to homeworkers' reports of back pain. Some homeworkers have also experienced problems with fire retardant back coating on fabric. Although the coated fabric is not subject to COSHH regulations, it can be sticky to work with and produces a fine powder. Reports of health problems included dry or stinging eyes, throat irritation and exacerbation of eczema. The company no longer uses this type of coating.

An occupational health nurse is available once a week to provide health surveillance for the company. One homeworke has visited the nurse because of a skin condition and was provided with gloves.

#### 9. Difficulties:

The health and safety manager identified the main difficulty in addressing health and safety for homeworkers as trusting them to follow procedures when there is no one there to see what they are doing or supervise them. For example, ensuring that homeworkers are using needle guards and that children are kept away from sewing machines.

'No supervision...can lay down guidelines but you're not there to oversee them.'<sup>2</sup>

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<sup>2</sup> Quotations from interviewees are presented in inverted commas.

The production manager notes that you can have an “ad hoc look over it [workstation]” when visiting the homeworkers, to check that it is clean and tidy, that wires are not trailing on the floor and that guarding is being used.

#### 10. Impact of health and safety measures:

It was felt that addressing the health, safety and welfare of homeworkers has contributed to a higher level of commitment, and ‘a much more settled outwork team long-term’ (Production Manager). It also helps to ensure safe working practices and ‘stops potential expensive costs in the future, for example, stopped workload’ (Health and Safety Manager). There have been no further needle injuries since the introduction of needle guards.

#### 11. Further action:

The health and safety manager feels that the company could improve on the extent to which it addresses manual handling hazards, although there is some reference to lifting and carrying in the ‘sewing at home safely’ document, it is not addressed in the homeworkers’ risk assessment.

### **4.2.2.2 Company B: Sewing Hats**

#### 1. Background:

Company B is a very small company, employing a total of 14 staff, three of which are homeworkers. The company regards homeworking as a way of recruiting and retaining good machinists. Homeworkers are employees of the company with the same employment entitlements as on-site workers (e.g. holiday pay, sick pay) and receive the same hourly rate of pay, which is based on the length of time calculated to complete specific jobs. The rate of pay is above the minimum wage. Homeworkers have the flexibility to choose the amount of work they do each week and thus the number of hours they wish to work.

One of the longstanding homeworkers (who originally started working at home to fit in with childcare commitments) stated that flexibility is the main benefit of homeworking, though it also requires self-discipline to work on your own. Although working at home can sometimes be lonely, she prefers to continue homeworking even though she no longer has childcare commitments.

#### 2. Equipment:

The company provides the following equipment:

- Sewing machine (including table and lamp)
- Chair
- Raw materials - cloth and threads
- Paper masks are available if machinists experience problems with fibres. The only person to use a mask is the on-site cloth cutter.

An on-site mechanic will visit the worker’s home to carry out maintenance on the equipment if there is a problem. Homeworkers are expected to inform the company of any problems with the machine.

#### 3. Health and safety management:

The owner has obtained information on health and safety from HSE leaflets. At present the company’s approach to health and safety systems is not formalised or documented, and communication of information about hazards and control measures is conducted by word of mouth. The company are aiming to develop more formalised health and safety systems and a member of staff has recently attended an introductory health and safety course.

#### 4. Risk assessment:

It was felt that the sewing machines and needles are the most significant hazard for machinists, both on-site and at home. The company has not fitted needle guards as the machinists feel they interfere with their control of the fabric. The possibility of introducing needle guards was being considered following discussion with their insurance company.

#### 5. Training and Information:

One of the homeworkers is a very long-standing employee; the other two have been recruited more recently. The most recent recruits were trained at the factory by one of the more experienced members of staff. The company regards this method of training as preferable as it minimises the impact on the factory's resources. Homeworkers are then allowed to come into the factory as much as they feel is necessary in the first few weeks, to ensure that they are confident about the job requirements. New designs tend to be sewn in the factory where possible.

#### 6. Communication:

Homeworkers have regular face to face and telephone contact with the owner who generally delivers and collects work on a daily basis.

#### 7. Incident, Accidents and Health Problems:

There have been no accidents or health problems affecting homeworkers in the five years since the current owner took over the company. The homeworkers would inform the owner in the event of any such problems. The company has an accident book.

#### 8. Difficulties:

The main difficulty in addressing health and safety for homeworkers is the time available within this very small business. The owner finds that the demands of the multiple roles he carries out in managing the business leave limited time to address health and safety issues. He has felt 'overwhelmed by the information' contained in health and safety guidance, and found it difficult to know exactly how to make the company's approach to health and safety more formalised.

#### 9. Impact of health and safety measures:

The owner considers it is important to protect his workers.

'At the end of the day, I'm concerned about the welfare of the people who work for me. Without them I can't manufacture'.

#### 10. Further action:

The owner is aware that the company needs to formalise its approach to addressing the health and safety hazards associated with sewing, in order to ensure that all significant hazards are identified and appropriate control measures to protect those at risk are implemented. He intends to contact his local business link (a service for small and medium sized businesses) for further advice on health and safety issues.

### **4.2.2.3 Company C: Manufacture of socks**

#### 1. Background:

Company C manufactures socks and has been in operation since 1976. There are 44 employees. The company uses two longstanding homeworkers on a regular basis, and a bank of other homeworkers intermittently to help meet peaks in production demand. The homeworkers are self-employed contractors and responsible for their own tax and insurance. The company also advertises locally if more homeworkers are needed.

Homeworkers are involved in separating socks, turning socks the right way round, matching the sock lining with the outer sock, and sewing lace strips onto the sock. Homeworkers are paid on a piece rate basis per dozen pairs of socks. The homeworkers can specify how much work they want to do, and whether they want the company to deliver and pick up the work, or whether they will do it themselves.

The key benefit for Company C in employing homeworkers is the flexibility they provide to meet production demand. Though there is a disadvantage for the company in not being able to dictate when the work is done, the director explained,

‘We’ve got no control over them. The reason that these ladies like doing it is that they’ve got the flexibility, they can go and do the shopping when they need to, they can go and fetch the children when they need to. All that sort of thing, which can be a disadvantage because you can’t say you will do this quantity in an hour...But that is something we have to be willing to accept.’

## 2. Equipment:

The company does not provide any equipment for the homeworkers except a tube that is used for turning the socks around. The homeworkers involved in sewing supply their own sewing machines.

## 3. Health and Safety Management:

There are three directors (one of whom is the safety officer), a factory and sales manager, and a despatch manager. The primary point of contact for the homeworkers is the despatch manager, but the other management will also deal with homeworkers. Homeworkers are required to report to reception whenever they visit the company.

## 4. Risk Assessment in the Home:

The company does not complete risk assessments for the homeworker’s home. The weight of the bags of socks that are delivered to the homeworkers is seen as a potential manual handling issue, so heavier socks are delivered in smaller quantities to ensure that the weight of the bag is manageable for homeworkers.

The director is responsible for the documented risk assessments on the factory site, and the on-site employees contribute to these. He believes Company C does not use any substances that come under the COSHH regulations.

Although the director believes that there is a potential risk of RSI for homeworkers, his knowledge of their working practices indicates that this risk is not high, as he feels homeworkers do not engage in the work for long periods without interruption.

The car park was also regarded as a potential hazard for homeworkers, as the uneven surface could lead to slips or trips. This issue was raised by the insurance provider.

## 5. Training and Information:

Company C accesses a variety of sources of health and safety information, including; Business Link, the Knitting Industry Federation (KIF), professional contacts within the industry through local area working groups, the insurance provider, and the chamber of commerce.

As the company supplies a number of well known high street stores, it has to meet the contractor compliance requirement set by these groups, of which health and safety is an integral criteria. One of these groups sent representatives from Croner to assess the company’s health

and safety and give advice. Another organisation sent its own representatives to company C, and took three days to complete a health and safety audit.

Two of the factory employees are undertaking an NVQ 'Train the Trainer' course. It is hoped that these employees will be able to train other workers to impart their skills and knowledge (e.g. manual handling) more effectively to others. The training arm of the Knitting and Lace Federation runs the course. The director was made aware of the course through SkillFast UK.

#### 6. Communication and Guidance:

The health and safety policy is displayed on the staff notice board, and risk assessments have been completed for all aspects of production. The director believes that the lack of hierarchical structure promotes direct communication between the homeworkers and management.

#### 7. Incidents and Accidents:

There have been no reported accidents from homeworkers or from on the factory site. There is an accident reporting system in the factory, along with an accident book.

#### 8. Health Problems:

No health problems have been reported by the homeworkers. One of the homeworkers had been visited by a representative from a Local Authority outworker support group, who had supplied her with a swivel chair and lamp.

#### 9. Difficulties:

The director felt that the contractor compliance requirements imposed by the companies they supply to, have financial considerations that could potentially affect health and safety issues. Company C has to bear the cost of any assessment for contractor compliance, and as there is no common assessment board or group, every time company C undertakes a contract with a new organisation, they need to be assessed by the competent persons recommended by that organisation, and so incur additional costs each time. The director feels that some companies could reduce expenditure on health and safety in order to meet these additional costs for contractor compliance. The director explained,

'We could end up paying thousands and thousands of pounds for something we are already complying with. Just so they can tick their boxes saying we comply.'

The director believed that the financial climate in which company C operates was being dictated by the large organisations they supply to, again with implications for health and safety.

'That's one of the business issues we have to deal with and cut costs accordingly. That's one of the things that health and safety can suffer with. Because obviously to implement full health and safety is not cheap. At every hurdle we are being screwed on the price. You've got to get your prices down. There's only a limit to what we can do, if it comes to a certain point that we don't spend money on health and safety. We are not perfect, there are things we need to do, but it comes at a cost.'

As the company is small the management have multiple roles and responsibilities. The director believes that this has disadvantages as

'The difficulty is that you don't have the in-depth knowledge and time to spend that perhaps you should do.'

#### 10. Impact of Health and Safety Measures:

The company stresses the importance to all staff of taking responsibility for health and safety (especially housekeeping issues). The director feels that a positive safety culture results from all staff taking responsibility for health and safety, and that giving certain health and safety duties to specific individuals does not always encourage such group responsibility.

‘If you see a plastic bag on the floor that somebody can slip on, pick it up, don’t leave it there. It’s not up to any one individual to report it or anything, you deal with it, you pick it up. It’s general housekeeping.’

#### 11. Further Action:

The director feels that the storage of work by homeworkers is a potential hazard that needs to be addressed by the company. He also feels that there is scope for the company to make homeworkers more aware of potential risks such as manual handling and RSI.

### **4.3 PACKING/ASSEMBLY/FINISHING:**

#### **4.3.1 Significant hazards and relevant regulations**

The following provides a brief guide to some of the significant hazards you could reasonably expect to cause harm within the packing, assembling and finishing sector. Some possible health and safety consequences of these hazards are identified, as well as persons who may be at risk. A number of potential control measures to reduce the risk of somebody being harmed are also identified. This information is intended as a guide, and there may be additional hazards and control measures that need to be considered.

*Hazard* means something that can cause harm.

*Risk* is the chance, high or low, that somebody will be harmed by the hazard.

#### Hazard: Work Equipment

*Who may be affected:*

- Homeworker; family members; visitors; consider vulnerable persons (e.g. young children).

*Consequences/How affected:*

- Cuts, burns, trapping, entanglement, electrical risks, noise and vibration, dust and fume and musculoskeletal strain or injury.

*Control measures:*

- Ensure work equipment is suitable for intended use;
- Ensure work equipment is safe for use, maintained in a safe condition and, in certain circumstances, inspected to ensure that this remains the case;
- Ensure a suitable standard of lighting is provided;
- Ensure suitable emergency stop controls are in place;
- Provision of PPE where other safeguards are not adequate to prevent risk when an irregular event occurs;
- Ensure that work equipment is used only by people who have received adequate information, instruction and training;
- Work equipment is accompanied by suitable safety measures, e.g. protective devices, markings and warnings.

*Relevant Regulations:*

The Provision and Use of Work Equipment (PUWER) Regulations 1998 (HSE, 1996 b).  
The Personal Protective Equipment Regulations 1992 (HSE, 1992 a).

Hazard: Hazardous Substances (adhesives, solvents and chemically treated materials)

*Who may be affected:*

- Homeworker; family members; visitors; consider vulnerable persons (e.g. young children).

*Consequences/How affected:*

- Asthma, dermatitis, cancer, irritation of eyes, lungs and skin, headache, nausea, dizziness and light-headedness.

*Control measures:*

- Eliminate the substance or procedure wherever possible, or substitute it with a safer alternative;
- Enclose the process;
- Provide general or local exhaust ventilation;
- Limit contamination by good housekeeping, proper storage and disposal;
- Minimise the duration of the procedure;
- Provide PPE only where the methods above are not reasonably practicable;
- Exposure monitoring or health surveillance as required by COSHH 1999 regulations;
- Do not eat or smoke when using hazardous substances;
- Wash hands thoroughly after working with hazardous substances;
- Inform homeworkers of the risk from hazardous substances.

*Relevant Regulations:*

The Control of Substance Hazardous to Health (COSHH) Regulations 2002 (HSE, 2002a).

Hazard: Homeworkers visiting site

*Who may be affected:*

- Homeworkers; visitors; on-site employees.

*Consequences/How affected:*

- Intermittent influx of large numbers of homeworkers to the work site leading to crowding and increased risk of manual handling injuries, slips and trips and inappropriate safety behaviour.

*Control measures:*

- The use of dedicated entrances for homeworkers to enter the work site;
- Operation of appointments system to limit numbers of homeworkers on site at one time;
- Clear markings and demarcation of areas within which homeworkers must stay on site;
- Appoint on-site employees to assist homeworkers delivering and picking up work; and
- The use of raised loading bays to aid homeworkers when delivering or picking up work in their cars.

*Relevant Regulations:*

Workplace (Health, Safety and Welfare) Regulations 1992 (HSE, 1992 b).

The Manual Handling Operations Regulations 1992 (HSE, 1998 b).

Hazard: Electricity

*Who may be affected:*

- Homeworker; family members; visitors; consider vulnerable persons (e.g. young children).

*Consequences/How affected:*

- Electric shock or fire.

*Control measures:*

- Ensure domestic electrical system is adequate for the electrical equipment provided (e.g. sewing machines, lamps);
- Plugs are correctly wired and maintained;
- Leads, wires and cables are appropriately covered and not damaged;
- Plugs, leads, wires and cables are checked regularly and kept in a condition that does not cause harm;
- Circuit breakers are installed;
- Smoke detectors are provided.

*Relevant Regulations:*

The Electricity at Work Regulations 1989 (HSE, 1989).

Hazard: Manual handling of raw/finished materials

*Who may be affected:*

- Homeworker; family members; consider vulnerable persons (e.g. new or expectant mothers).

*Consequences/How affected:*

- Musculoskeletal strain or injury, particularly to the back.

*Control measures:*

- Avoid heavy, bulky loads or materials;
- Improve workplace layout to increase efficiency and reduce carrying distances;
- Avoid repetitive handling. Vary the work to allow one set of muscles to rest while another is used;
- Provision of suitable flooring. Avoid steps and steep ramps;
- When lifting is necessary, homeworkers must be informed, instructed and trained in good techniques to help reduce the risks;
- Provide lifting aids (e.g. trolleys).

*Relevant Regulations:*

The Manual Handling Operations Regulations 1992 (HSE, 1998 b).

Hazard: Slips, Trips and Falls

*Who may be affected:*

- Homeworker; family members; consider vulnerable persons (e.g. new or expectant mothers, young children).

*Consequences/How affected:*

- Physical injury.

*Control measures:*

- Keep work areas tidy and clear of obstructions or objects lying around that may cause person to trip. Clean spills up immediately;
- Provision of appropriate storage cupboards/containers;

- Arrange furniture in order to avoid trailing wires;
- Ensure mats are securely fixed and do not have curling edges;
- Try to avoid changes of level;
- Ensure suitable footwear;
- Ensure adequate lighting.

*Relevant Regulations:*

The Management of Health and Safety at Work Regulations 1999 (HSE, 2000 a).

Hazard: Isolation

*Who may be affected:*

- Homeworker.

*Consequences/How affected:*

- Stress and depression.

*Control measures:*

- Regular face to face contact between company representatives and homeworker;
- Same information and support for homeworkers as on-site workers, including information on social events;
- Facilitate communication with other homeworkers and on-site workers;
- Homeworkers should take regular breaks.

*Relevant Regulations:*

The Management of Health and Safety at Work Regulations 1999 (HSE, 2000 a).

Additional hazards:

Additional hazards that may be appropriate to consider include dust and fibres from materials (which can cause skin and breathing problems), and the risk of injury to feet from small pieces of wire if left on the floor when cut (especially if children or pets are present). Control measures may include PPE such as masks, gloves, overalls and the use of an industrial vacuum cleaner and specialised filter.

#### **4.3.2 Examples of Health and Safety for homeworkers**

This section presents the findings from interviews with three companies in the packing/assembly/finishing sector regarding the health and safety management of homeworkers.

##### **4.3.2.1 Company A: Domestic ironing service**

1. Background:

Company A is a small domestic ironing service. It has been in operation since 1997 and employs five homeworkers to do ironing. Homeworkers are provided with bags of washed items, which are ironed, placed on hangers and covered with plastic wrapping, ready for collection. In 2001 the business opened a franchise in a nearby town, which employs four workers to do ironing on-site. This premises is now used as the training facility for any new homeworkers.

Homeworkers are supplied with work as self-employed contractors and have a contract detailing the service they provide and charges. They are free to work for other companies. They invoice the company for the work they have done, and are paid a fixed rate for each type of item they iron. This rate is based on the rate charged to customers, which the owner feels is consistent

with other similar businesses. Workers are paid by cheque to ensure that a formal record of work and payments is maintained. The hours worked range between 10-20 hours per week depending on the amount of work available. The owner prefers to keep the work hours consistent with part-time working as this allows for flexibility in distribution of the work and reduces the likelihood of health problems from carrying out such repetitive work (e.g. musculoskeletal disorders).

As part of the selection process for homeworkers the owner visits the individual's home to assess its suitability. It is regarded as preferable to have a clean work area, which is not accessible for children or pets; and is free of strong smells such as cigarette smoke. Plug sockets are also checked to ensure that they are accessible and suitable. Homeworkers can vary the amount of work they choose to do. They are asked to provide sufficient notice of not being able to do their 'normal' amount of work to allow alternative arrangements to be made. Homeworkers sometimes take on extra work when others cannot do it, but feel they are not under any pressure to accept this additional work.

The owner regards this type of work as being well suited to homeworking and feels that both the business and the workers benefit from the flexibility. A specific business benefit was identified in that there is very limited space within the existing premises to have workers ironing on-site. Homeworkers consider flexibility to be the main benefit of working at home;

‘I can do it when I want.’  
(homeworker).

One of the homeworkers does approximately 2.5 hour work each evening (Monday – Friday) when her children have gone to bed. Two of the homeworkers experience musculoskeletal pain (hip and back pain not specifically caused by their work) and find that the flexibility of working at home means that they can take breaks whenever they need to, and can get the work done without exacerbating their condition. Homeworkers did identify some downsides to homeworking in that the work creates a lot of steam and dust. This is addressed by general ventilation. They also commented that the rate of pay is not very high (currently below minimum wage), however it was also noted that they save money on the cost of travel and work clothes.

## 2. Equipment:

Homeworkers are provided with the following equipment:

- Professional iron
- Clothes rail
- Plastic roll for covering clothes
- Elastic bands
- Hangers
- Clothes guards for hangers
- First aid kit (HSE approved)

They are also provided with job sheets to record each job they do. Homeworkers are expected to report any problems with equipment, in particular the irons, which are then either repaired or replaced. Irons are sent to a local electrician for repair. Irons are replaced when their warranty expires. The owner estimates the initial cost of setting up a homeworkeer to be around £250 per person. This includes £160 for the iron, £30 for the first aid kit and £30 for training.

## 3. Health and safety management:

The owner set up this business after retiring from a multinational organisation. His previous job meant that he was aware of the need to address health and safety issues. He contacted his local HSE office for advice and was sent a copy of 'Homeworking: Guidance for employers and employees on health and safety'. He also contacted a Homeworking Project Adviser at his Local Authority and she advised him on carrying out a risk assessment.

#### 4. Risk assessment:

The business has recently introduced a Risk Assessment Checklist to be carried out in each homeworker's workspace. It comprises a list of 11 health and safety control measures, including:

- Safe storage for hangers/dust covers
- Plug sockets in good condition/suitable position
- No breaks in iron cable
- Health and safety training provided
- First aid kit supplied
- Ironer and family aware of dangers, particularly if children are present

An additional item on the tick list relates to quality assurance, (i.e. that there were no signs of excessive hair from animals). All 12 items on the list are expected to be in place before work commences.

When considering the health and safety risk assessment, the owner stated that he

'just sat down and read the homeworking book and thought of every possible hazard and looked at what you can do about it.'

He felt that the potential hazards for children were a significant issue in relation to homeworking (e.g. sharp coat hangers; plastic dust covers; and the irons).

#### 5. Training and Information:

The business pays one of the experienced homeworkers to carry out the initial training of homeworkers. This takes approximately three hours. She has also developed a training video that workers can take home with them; this reinforces what is covered in face to face training. Training is now carried out on the premises of the franchise business. One of the homeworkers attended the trainer's home for training and was given her telephone number so she can contact her.

Training covers how to iron; the use and care of the irons; and health and safety issues. Some of the specific details include: how to use the iron safely (in particular the steam generator, which has a much larger water capacity than a normal domestic iron); no toddlers present when working; and storing hangers and plastic covers away from children.

One of the homeworkers mentioned that she used to do childminding so was aware of unforeseen things that could happen, and stated

'I don't think you could do it with children around.'

Homeworkers are also provided with a written 'Ironers information' sheet, which includes: work instructions on ironing and care of the iron; and health and safety instructions/information. The health and safety instructions/information address the following issues:

- Iron: It is an electrical appliance and the appropriate power supply must be used; safety features are identified; and it must be checked for signs of wear and tear or damage (e.g. to the cable or boiler cap) to ensure that it is not a danger to the homeworker or others.
- Burns: Potential burn hazard posed by soleplate of iron and steam.
- Children: Specific instructions on keeping children away from the steam generator; never leave the iron switched on when unattended; and storage of coat hangers and plastic covers away from children.
- Fire: Potential fire hazard posed by plastic covers.
- Training: All ironers should be trained in how to use the equipment safely.

#### 6. Communication:

Homeworkers have little contact with each other but they have regular face-to-face contact with the delivery driver who generally delivers and collects work on a daily basis. They also have telephone contact with the owner. Homeworkers indicated that they have a good relationship with the owner and other persons involved in the business, and would not have any concerns about communicating problems.

#### 7. Incident, Accidents and Health Problems:

There have been no reported accidents or health problems affecting homeworkers since the business started. The homeworkers stated that they would inform the owner in the event of any such problems. Some of them did mention having experienced minor burns, which they attributed to not doing things correctly. The company has not started an accident book yet as they have had nothing to report, but the owner is aware of the need to record accidents and of the need to inform HSE.

#### 8. Difficulties:

The main difficulty the owner experienced in addressing health and safety for homeworkers was that he struggled with knowing what to put in a health and safety policy. He requested and was provided with a copy of the HSE leaflet ‘Stating your business: guidance on preparing a health and safety policy document for small firms’ (HSE, 2000 b) by HSL researchers.

#### 9. Impact of health and safety measures:

The owner considers that it is important to protect the workers, as they are necessary to keep the business operating;

‘Outworkers are the most important people.’  
(Owner).

#### 10. Further action:

The documented health and safety information provided to homeworkers by this business, including the risk assessment, addresses many of the hazards and control measures associated with this type of work activity. This information could be presented in a format which specifically identifies the significant hazards; who may be affected; and the control measures in place. This would improve the clarity and help to identify anything else that needs to be addressed (e.g. manual handling/lifting of bags). This information could also be used in the initial training of homeworkers to encourage them to be aware of, and identify, specific hazards in their own homes.

### **4.3.2.2 Company B: Greeting Cards**

#### 1. Background:

Company B employs 70 – 80 people in the manufacture of greeting cards. It is part of a chain of companies that are based across the UK. Homeworkers are involved in hand-finishing processes for the production of greeting cards. These processes include: attaching badges and popups, gluing, and packing cards into envelopes and display boxes.

The number of homeworkers varies according to the seasonal demand for greeting cards. During times of peak demand there can be up to 180 homeworkers. Some homeworkers have been with the company for two weeks, others for several years. Homeworkers are paid according to piecework, and are considered self-employed. The rate of pay is determined by the difficulty of the finishing procedures for the different types of card.

One of the advantages of using homeworkers identified by the company, is that it allows them to balance seasonal changes in production demand with overheads relating to staffing requirements. A further advantage is that as homeworkers are not based on-site, the company has the ability to employ more staff than facilities at the site could support. The site production rate for homeworkers has increased from 350 man-hours a week to 2,500 over a year, without any increase to the size of the site.

One advantage to working at home was that it allowed homeworkers to structure their work around childcare. A homemaker explained that she valued being able to manage her own time and the demands of production with her childcare responsibilities,

‘I need to be able to work around my four children... I can stop to pick him up from school and then go back to it.’

The health, safety and environment manager also indicated that homeworking could provide income for people with restricted mobility, who would be unable to travel to work. He also stated that homeworking provided additional income to people already in permanent employment.

The company is aware of how it relies on homeworkers to meet the seasonal demand of greeting card production. The motivation to address the health and safety of homeworkers partly came from questions posed by the insurance provider following an audit. The questions were regarding how Company B managed the associated health and safety risks of this flexible resource (on which production depended), and whether they considered homeworkers as employees. The health, safety and environment manager had also read an article in a health and safety journal regarding the requirement for homeworkers to be included under the employer’s liability insurance. The insurance company highlighted the legislative requirements of formalized and documented health and safety procedures, but also that these procedures provided Company B with a defence against any potential compensation claims. The health, safety and environment manager explained that the company had a responsibility for the duty of care for all its employees,

‘If you look after people, then they will support you.’

## 2. Equipment:

The company provides the following equipment for homeworkers:

- Tape guns
- Tape dispensers
- Glue and containers
- Tape
- Bags

- Large flat weights for gluing cards
- Double sided adhesive strips
- Boxes of cards
- Badges

### 3. Health and Safety Management:

The Company employs a health, safety and environment manager who is responsible for health and safety coordination across the group of companies. In addressing health and safety for homeworkers he has referred to existing health and safety management information, data sheets from the companies supplying materials, the HSE website, and the HSL scoping study into homeworking. The HSE guide on homeworking was considered to be too general. It was felt it would be helpful to have health and safety guidance that was specific to the industry. He also uses the 'Printer's guide to health and safety' as his 'bible'.

An outwork supervisor has been appointed to coordinate homeworkers and to act as a first point of contact. The outwork supervisor also represents homeworker issues on the health and safety committee. The minutes from the health and safety committee meeting are posted on the notice board for homeworkers. Her details are communicated to homeworkers during training and through a poster on the notice board.

### 4. Risk assessment:

A formal risk assessment is not systematically carried out in employee's homes, but a risk assessment is carried out for the production activities of the homeworkers. Every homeworker is given a copy of the risk assessment. Information for the risk assessment was partly provided by the insurance company and HSE guidance and research (the homeworking scoping study). The health and safety manager emphasized that it was often necessary to request more information from the insurance company than they initially provided. The risk assessment consists of a hazard table (listing whether the risk is low, medium or high), the persons at risk, existing preventative measures, and the further actions that are required to control the risk. Feedback from homeworkers will be incorporated into the risk assessment when it is reviewed. The hazards that have been identified for homeworkers include:

- Tripping/slipping
- Flying particles
- Fire/flammable atmosphere
- Moving vehicles
- Substances/chemicals/fumes/dusts
- Materials/manual handling
- Handling equipment/sharp tools
- Personal attack/security
- Communications
- Ergonomics
- Repetitive work

A COSHH assessment is also carried out on the adhesive that the homeworkers use (although the product is not considered hazardous). The control measures give information on: handling and use; storage; first aid; spill response and disposal; and information; instruction and training requirements.

The health, safety and environment manager perceived the most significant health and safety hazards faced by homeworkers to be related to manual handling issues, which occur while delivering finished cards, or picking up new work at the factory. He drew attention to activities such as loading boxes of cards, or homeworkers being in the factory unsupervised. Manual

handling training has been introduced for homeworkers in order to address this risk. The company is also concerned about the potential risks that homeworking poses to children, such as falling boxes or accidentally drinking adhesive.

#### 5. Training and Information:

Copies of an employee's guide to health and safety are provided to all employees and homeworkers. This includes the group health and safety policy and management responsibilities. The guide also gives details of:

- Use of display screen equipment
- Procedures in a fire
- First aid
- Slips, trips and falls
- Compressed air
- Electricity
- Safety signs
- Noise
- Manual handling
- COSHH

A 'Homeworkers' Health and Safety Handbook' is provided to new homeworkers to familiarize them with the risks involved in their work. The information includes:

- A map, address and contact details for the company
- Procedure for accident reporting
- The photograph and details of the Outwork Supervisor
- Risk assessment
- Procedures for using adhesives
- COSHH assessment
- The procedure for picking up or dropping off products

A new handout has been prepared about the risks of decanting glue into containers that are unauthorized by the company (e.g. soft drink containers), and how this can increase the risk of the glue being drunk by children.

An experienced employee trains homeworkers at the factory. They are given a demonstration and specific instructions for each of the different operations for finishing the cards and the required quality. The induction training is combined with manual handling training to ensure that all homeworkers are taught good practice regarding manual handling. There is also a poster entitled 'Correct points for lifting' on the homeworkers' notice board.

#### 6. Communication and guidance:

Homeworkers have regular contact with the outwork supervisor when picking up materials and delivering finished cards. They can also telephone her on a dedicated homeworking line and leave voice mail. Homeworkers are encouraged to raise health and safety issues with the outwork supervisor. In the 'Homeworkers' guide to health and safety' it states 'Please remember that when you raise your health and safety issues to the Outwork Supervisor, you will not only benefit yourself, but it will also benefit the other 150+ homeworkers!'. Homeworkers indicated that they had a good relationship with her, and did not have any concerns about communicating difficulties,

'She's fine, very relaxed. You feel you could phone her up about anything.'

The health, safety and environment manager identified the importance of open communication for resolving health and safety issues with homeworkers. He feels that a greater effort is required to make homeworkers aware of the channels of communication, and the identities and responsibilities of management, as this information is not reinforced on a daily basis as it is for staff on site. He feels it is important for homeworkers to

‘Put a face to a name, rather than just having a name on a list, that you occasionally see when you pick up stock.’

For this reason pictures of the outwork supervisor appear on leaflets and the notice board so homeworkers can easily recognize her. The health and safety manager believes that one of the by-products of training is that it reinforces face-to-face communication.

#### 7. Incident and Accidents:

No accidents have been reported from a homeworkeer. The necessity of reporting all incidents and near incidents that occur at home is emphasized to homeworkers. Homeworkers are required to fill in a formal accident-reporting form with the outwork supervisor. This procedure is regarded as important as it enables the company learn from incidents, and to inform homeworkers of potential unforeseen hazards. In future, information about accidents and near misses will be communicated to all employees in a health and safety bulletin. It is anticipated that this bulletin will be mailed to all homeworkers.

During the interviews homeworkers questioned whether they would report incidents involving lifting,

‘If your back went you’d have to blame yourself.’

‘If we don’t lift properly that’s our problem.’

There was an indication that the homeworkers’ sense of personal responsibility for incidents is reinforced by their home environment, which has implications for the under-reporting of accidents.

#### 8. Health problems:

Homeworkers felt that the storage of materials (e.g. the boxes of cards) in the home was a risk to health, especially for children,

‘Sometime when there’s a pile of them ..... they get a bit wobbly.’

Boxes falling on feet were felt to be a risk that was not addressed during the company training,

‘They don’t mention feet ...don’t tell you to wear safety shoes.’

Homeworkers were aware of the importance of good posture for preventing musculoskeletal problems while working. The nature of the work task meant that many of the homeworkers were engaged in a distraction activity (e.g., watching television) while working. In many cases the working environment was organized to reflect the needs of the distraction activity, and not the work task. One of the homeworkers said,

‘I’ve got a solid chair, but I won’t sit there and look out of the window, I’ll sit on the sofa and watch the telly.’

#### 9. Difficulties:

The health and safety manager felt a grey area existed around where company responsibility for health and safety ended and that of the individual began. The company had not previously considered the health and safety requirements of homeworkers to the same extent as it had of employees. The company is currently addressing the areas of risk faced by homeworkers through improved training, information, communication, and improved delivery procedure.

Communicating health and safety information to homeworkers is perceived as difficult due to the diverse nature of the workforce, and the intermittent times at which homeworkers visit the company. Company B is starting to address these difficulties by introducing face-to-face training and the use of information leaflets sent directly to homeworkers. Problems caused by people incorrectly lifting boxes have been addressed through the introduction of face-to-face manual handling training for all homeworkers.

One area of concern has been the use of adhesive. The adhesive was initially provided to homeworkers in a large container. Homeworkers were required to decant this adhesive into a smaller container (also provided by the company) for use in finishing the cards. Some homeworkers decanted the adhesive into soft-drink containers, as this was a more convenient size to use than the second container supplied by the company. The company felt this practice increased the risk of children ingesting the adhesive, as children could mistake the adhesive for a soft-drink. To reduce this risk, the company supplied smaller, more convenient containers for homeworkers to decant the adhesive. Homeworkers were also instructed that they were not allowed to decant adhesive into any container that was not provided by the company.

#### 10. Impact of health and safety measures:

Homeworkers can visit the factory up to four or five times a week. It was possible for groups of homeworkers to turn up at the same time at the factory, to either deliver finished cards, or to pick up new batches of work. Groups of homeworkers waiting unsupervised in the production area disrupted production and was identified as a potential hazard, particularly the congestion around the loading bay. This problem has been resolved with the introduction of a policy of keeping homeworkers separate from production workers at the factory site. A special entrance is designated for homeworkers. Homeworkers are now given an appointment time to return or pick up batches of cards. The appointment times are staggered in 10-minute intervals to prevent excess numbers of homeworkers being on site at one time. Appointments begin at 6.30 am, and finish at 8.00 pm. Homeworkers visiting the factory must report to the outwork co-ordinator or a nominated employee (a shop floor employee is appointed each shift to be responsible for outworker concerns). Problems caused by homeworkers lifting boxes have been addressed through the redesign of the loading bay. Help is also available for homeworkers to transport cards to and from the loading bay to their car.

#### 11. Further Action:

The health, safety and environment manager explained that there is a need to establish a clearer definition of where the employer's responsibility for health and safety in the home ends, and where that of the homemaker begins. The company feels it is important to clarify this delineation not just for effective health and safety management, but also for insurance purposes.

The production manager emphasized the company needed to formalize its approach to certain aspects of the health and safety management of homeworkers, in particular:

- To organise homemaker meetings and representation
- To include the input of homeworkers in risk assessments
- To assess the home environment of homeworkers
- To improve methods of promoting health and safety information
- To devise information to alert homeworkers to the dangers homeworking presents to children

- To produce an advice leaflet on considering the layout of the home environment when working at home
- To identify the relevant experiences of other industries, and research, in order to continuously improve health and safety practice

#### **4.3.2.3 Company C: Manufacture of lampshades**

##### 1. Background:

Company C is involved in all stages of the production of lampshades, from design to assembly and finishing. It produces approximately 60000 lampshades a week and has been operating for the past 25 years. The seasonal nature of the work means staffing levels fluctuate between 50 and 80 production operatives, most of whom are on short-term, three-month contracts.

There is a seasonal demand for lampshades, and homeworkers provide a flexible resource that allows the company to meet changes in demand and respond quickly to new orders. 30-35 homeworkers may be employed during a time when production demand is high. This figure reduces to 15-20 during quieter times in the year. The motivation to use homeworkers is a financial one, as the company is able to reduce labour costs because the overheads are less for homeworkers than in-house employees.

The production process involves homeworkers and on site employees in a variety of operations. Lampshades of different designs are assembled around a central gimbal. The main task of the homeworkers is to wrap the lampshades with protective acetate, and then to label the finished product. Homeworkers are normally expected to take two days to complete batches of approximately 120-140 lampshades.

Homeworkers have the flexibility to choose the amount of work they do each week and so have some control over the number of hours they wish to work. One of the homeworkers explained that whilst working from home requires self-discipline, she preferred to work without direct supervision, as she was able to control her own time and take breaks when she wanted. The production manager explained that homeworkers are predominately women with small children who work while their children are at school. A homemaker identified that the flexibility to fit in with childcare commitments was the main benefit to her for working at home.

Homeworkers are recruited from adverts in the local press, as the company prefers people to live locally for ease of access to the factory. The company has no difficulties in recruiting the required number of homeworkers. Homeworkers are considered self-employed contractors and are paid according to a piece-rate basis. The rate of pay for the number of lampshades wrapped is determined by the size of the lampshade and the time taken to wrap it. It is estimated that this rate of pay is in excess of the national minimum wage and is commensurate with in-house workers.

Homeworkers' access to the production site is controlled by an appointment system to limit the number of homeworkers visiting the site at one time, and to provide records of which staff are on site. There is a designated area of the factory for homeworkers to return finished products and pick up new work, with a special entrance that is only used by homeworkers. When visiting the factory to deliver or pick up work, homeworkers are given an appointment time. They are able to park their car next to the dedicated entrance. Homeworkers ring the bell and are allowed access into the factory by the outwork co-ordinator. It is emphasized to them that other persons must stay in the car, for example, other family members or children.

## 2. Equipment used:

The company provides and maintains the following equipment for homeworkers:

- Rolls of clear plastic wrap
- A machine that produces rolls of clear plastic wrap of set lengths
- A gimbal board
- An assorted selection of gimbals
- A tape dispenser
- A box of elastic bands
- Plastic bags to contain the rolls clear plastic wrap

The homeworkers bring the equipment into the factory if it needs to be serviced or repaired.

## 3. Health and Safety Management:

The first point of contact for all homeworkers for any issue is the outwork co-ordinator. The company employs a production manager who is also responsible for health and safety. He has experience of all aspects of the manufacturing process.

A management committee comprised of the production and maintenance manager, as well as shop floor representatives, meets monthly to discuss outstanding issues. Health and safety issues can be dealt with at this time. Homeworkers are expected to raise health and safety issues through the outwork co-ordinator, who then reports to the committee via her supervisor. No issues have been raised to date in this way.

Health and safety expertise is provided by Lloyds Employment Services (LES), which is felt to be a more cost effective method of acquiring health and safety expertise than employing a full time health and safety manager. One person within LES always provides a consistent point of contact for health and safety advice.

LES performed a risk assessment of the hazards present in the factory with the health and safety manager. A health and safety policy was then produced along with documented risk assessments for individual machines and production processes. The health and safety policy has been simplified to make it more accessible to the workforce, though the changes have yet to be finalized by the managing director. A health and safety statement is available for employees to read on the health and safety notice board, and the health and safety manual is made available in the production office.

## 4. Risk assessment in the home:

A formal risk assessment of employee's homes is not carried out. The production manager acknowledged that the health and safety policy needs to account more for the use of outworkers. The production manager explained that he perceived the most significant health and safety hazard faced by homeworkers to occur whilst travelling to and from the plant, as opposed to the actual nature of the production task itself. He drew attention to activities that homeworkers should be made aware of or should not do, such as driving whilst using mobile phones, and manual handling while delivering or picking up work.

## 5. Training and Information:

New homeworkers are initially trained at the factory by the outwork co-ordinator and an experienced production operative. Potential homeworkers are given a demonstration and specific instructions for each of the different operations for the production process. During training the outwork co-ordinator informally assesses the ability of the potential homeworker to complete the work satisfactorily and safely, using her general knowledge and experience of

homeworkers. Generally only longstanding homeworkers are allowed to use electrical equipment at home.

Health and safety information is also provided by suppliers, the HSE website and the insurance provider (who inspects the company every six months). The insurance provider has not made any comments about, or given guidance on, the use of homeworkers.

#### 6. Communication and guidance:

Homeworkers have regular contact with the outwork co-ordinator as they meet her each time they come to the factory to deliver finished lampshades or pick up new ones. Homeworkers indicated that they had a good relationship with the outwork co-ordinator, and would not have any concerns about communicating problems with production or discussing the rate of pay for a job, if they felt the price was unfairly set.

Written standing instructions (as part of ISO9002) are provided for all of the individual production processes. Each variety of lampshade has its own set of instructions, which breaks down the individual production process into discrete tasks, shows the shape and colour of the shade, and the position of the seam.

#### 7. Incident and Accidents:

Homeworkers are required to report accidents to the outwork co-ordinator, and to record any incidents in an accident book that is kept at the factory. None of the homeworkers had reported any accidents, though there had been a number of minor problems that they felt were not worth reporting. One homeworker had received minor cuts from a sharp tape dispenser, another homeworker referred to a faulty gimbal board. These issues were brought up informally with the outwork co-ordinator and the items were replaced.

Both homeworkers discussed the problem of lifting the boxes of cellophane wrap. The boxes usually contain batches of 200 rolls. To improve storage efficiency the company had begun to dispense boxes with a batch size of 250. Both homeworkers felt this posed a potential lifting hazard due to the increased weight. The issue was brought up informally with the outwork co-ordinator and the batch size was reduced back to 200 rolls.

#### 8. Health problems:

Fatigue was considered an important issue by both homeworkers. It was felt that there was a danger of working harder at home than in the factory because of the lack of structured breaks. The homeworkers emphasized that it was important to monitor their own performance, and so to be aware of when to take breaks and avoid fatigue.

‘When you feel your self getting tired, stop.’

The homeworkers had received no training or information on musculoskeletal issues from the company. Their coping strategies were based on their previous working experience, or as a reactive ad-hoc approach to the task at hand. The homeworkers were aware of the importance of posture when conducting repetitive tasks. Both homeworkers emphasized the importance of finding a way to support themselves and reduce pressure on their backs. They also said that crossing legs whilst sitting down reduced the circulation. Sufficient lighting was also considered an important issue. Generally the homeworkers stressed that it was important to be proactive in creating a working environment where the work task could be completed without causing musculoskeletal difficulties.

‘If you’re doing it all the time, you’ve got to look after yourself.’

The homeworkers felt grateful to be allowed the freedom to work unsupervised at home. They felt they should take responsibility for their own health and safety. They attributed any discomfort they experienced to not organizing themselves properly.

‘Everyone’s an individual you’ve got to find your own way.’

The homeworkers identified manual handling as one of the biggest problems they faced. In many instances the reliance on other members of the family to help deal with the manual handling task, emphasized how the homeworking task becomes a joint family activity, and not one solely conducted by the individual homeworker.

‘...they’re really heavy boxes and I won’t lift them ....I get my husband to lift it .... to get them out of the car for me.’

The husband of one homeworker had solved the problem of moving the winding machine from its storage area to where it was needed for working.

‘My husband made me a trolley.....I can bring it towards me and move it anywhere .....stows away nicely under the stairs.’

The potential of the homeworking activity to become a joint family activity was also emphasized by one of the homeworkers. The nature of the work was considered safe enough to carry out in the proximity of children, and could be an activity that they could also participate in.

‘They like to help out.....Sometimes I give them little jobs to do.’

Through experience of the different production tasks the homeworkers were aware of the specific demands that each task made on them, and were able to plan their work accordingly. For example, pinched fingers were felt to be a problem when using elastic bands to attach labels. In this instance the issue of protection was felt to interfere with the speed at which the task could be done, and so there was a trade-off between protection and rate of pay (as homeworkers are paid according to piecework). One homeworker explained that even though she had repeated the operation 600 times at a weekend, she refused to wear gloves and insisted on protecting her fingers with plasters as

‘Gloves slow me down.’

#### 9. Difficulties encountered:

The production manager felt it was difficult to determine how far the health and safety policy and risk assessments should account for the potential negligence of the homeworker. This was partly linked to defining how the responsibilities for health and safety were balanced between the employer and the homeworker, and especially where the responsibilities for the company ended.

‘You can always say there are hazards. If they take home a pile of lampshades and leave it in the middle of the floor and trip over it, there is a hazard there. You can’t set your health and safety policy up for negligence, you’ve got to do it for normal practice. You can’t plan ahead and try and take into account some of the general negligence. It just is not possible.’

He felt that training issues should also emphasize the homeworker's responsibility for their own welfare.

'The first contribution to their health and safety has to be made by them. They have to be responsible for their own safety as well as the company being responsible for it as well. They have got to contribute to it. They've got a part to play in it as well.'

#### 10. Impact of Health and Safety measures:

The production manager feels that it is not feasible for him to commit a significant proportion of his time to keeping abreast of health and safety legislation, as this would be to the detriment of managing production. In using LES he feels that they have achieved a cost effective solution to the problem. He stresses that it is necessary to ensure that they have a dedicated consultant for the company from LES, as it allows the person to develop a working knowledge of the business. He feels that if there was not a dedicated consultant then the opportunity for learning would be lost, and the quality and relevance of the health and safety advice would be lessened.

#### 11. Further Actions:

An induction pack is in the process of being devised. It is anticipated that this will give information on manual handling, basic health and safety requirements, and the location of the health and safety manual.

The company is drafting an instruction for all employees and homeworkers regarding the use of mobile phones whilst driving on work related business.

It was suggested that a clearer index on the HSE web site would help people find relevant information, as companies are concerned with locating specific information as opposed to general guidance.

## **4.4 ELECTRICAL AND ELECTRONICS:**

### **4.4.1 Significant hazards and relevant regulations**

The following provides a brief guide to some of the significant hazards you could reasonably expect to cause harm in the electrical and electronics sector. Some possible health and safety consequences of these hazards are identified as well as persons who may be at risk. A number of potential control measures to reduce the risk of somebody being harmed are also identified. This information is intended as a guide and there may be additional hazards and control measures that need to be considered.

*Hazard* means something that can cause harm.

*Risk* is the chance, high or low, that somebody will be harmed by the hazard.

#### Hazard: Soldering iron, solder pot

*Who may be affected:*

- Homeworker; family members; consider vulnerable persons (e.g. new or expectant mothers, young children).

*Consequences/How affected:*

- Burns, repetitive strain injury, and fire.

*Control measures:*

- Ensure soldering iron is suitable for intended use;

- Ensure soldering iron is safe for use, maintained in a safe condition and, in certain circumstances, inspected to ensure that this remains the case;
- Ensure a suitable standard of lighting is provided;
- Provision of holders for soldering iron;
- Ensure soldering iron is switched off when unattended;
- Provision of PPE where other safeguards are not adequate to prevent risk when an irregular event occurs;
- Ensure only people who have received adequate information, instruction and training use soldering iron.

*Relevant Regulations:*

The Provision and Use of Work Equipment (PUWER) Regulations 1998 (HSE, 1999 b).

The Personal Protective Equipment Regulations 1992 (HSE, 1992 a).

Hazard: Chemical Substances e.g. flux, solder

*Who may be affected:*

Homeworker, Family members, Visitors, Consider vulnerable persons (e.g. young children, persons with conditions such as asthma).

*Consequences/How affected:*

- Possible breathing difficulties, occupational asthma (or exacerbation of existing asthmatic conditions), skin irritation, dermatitis, irritation to eyes and upper respiratory tract

*Control measures:*

- Replace hazardous materials with a less hazardous ones;
- Follow advice from COSHH guidance sheets ([www.coshh-essentials.org.uk](http://www.coshh-essentials.org.uk));
- Ensure adequate ventilation that is properly maintained;
- Inform/train homeworkers about the materials, any risks and precautions;
- Supply personal protective equipment (PPE) such as masks, gloves or overalls when prevention of exposure or adequate control is not reasonably practicable;
- Exposure monitoring or health surveillance as required by COSHH 1999 regulations.

*Relevant regulations*

The Control of Substance Hazardous to Health (COSHH) Regulations 2002 (HSE, 2002 a).

Hazard: Electricity

*Who may be affected:*

- Homeworker, Family members, Visitors, Consider vulnerable persons (e.g. young children).

*Consequences/How affected:*

- Electric shock or fire.

*Control Measures:*

- Domestic electrical system is of a suitable standard for the electrical equipment provided e.g. soldering iron, lamp, fan;
- Electrical leads, wires and cables are in good condition and undamaged;
- Plugs are correctly wired and maintained;
- Circuit breakers are installed;
- Smoke detectors are provided.

*Relevant Regulations:*

The Electricity at Work Regulations 1989 (HSE, 1989).

Hazard: Manual handling of raw/finished materials

*Who may be affected:*

- Homeworker; family members; consider vulnerable persons (e.g. new or expectant mothers).

*Consequences/How affected:*

- Musculoskeletal strain or injury, particularly to the back.

*Control measures:*

- Avoid heavy, bulky loads or materials;
- Improve workplace layout to increase efficiency and reduce carrying distances;
- Avoid repetitive handling. Vary the work to allow one set of muscles to rest while another is used;
- Provision of suitable flooring. Avoid steps and steep ramps;
- When lifting is necessary, homeworkers must be informed, instructed and trained in good techniques to help reduce the risks;
- Provide lifting aids (e.g. trolleys).

*Relevant Regulations:*

The Manual Handling Operations Regulations 1992 (HSE, 1998 b).

#### Hazard: Work Equipment

*Who may be affected:*

- Homeworker; family members; visitors; consider vulnerable persons (e.g. young children).

*Consequences/How affected:*

- Cuts, burns, trapping, entanglement, electrical risks, noise and vibration, dust and fume and musculoskeletal strain or injury.

*Control measures:*

- Ensure work equipment is suitable for intended use;
- Ensure work equipment is safe for use, maintained in a safe condition and, in certain circumstances, inspected to ensure that this remains the case;
- Ensure a suitable standard of lighting is provided;
- Ensure suitable emergency stop controls are in place;
- Provision of PPE where other safeguards are not adequate to prevent risk when an irregular event occurs;
- Ensure that work equipment is used only by people who have received adequate information, instruction and training;
- Work equipment is accompanied by suitable safety measures, e.g. protective devices, markings and warnings.

*Relevant Regulations:*

The Provision and Use of Work Equipment (PUWER) Regulations 1998 (HSE, 1999 b).

The Personal Protective Equipment Regulations 1992 (HSE, 1992 a).

#### Hazard: Homeworkers visiting site

*Who may be affected:*

- Homeworkers; visitors; on-site employees.

*Consequences/How affected:*

- Intermittent influx of large numbers of homeworkers to the work site leading to crowding and increased risk of manual handling injuries, slips and trips and inappropriate safety behaviour.

*Control measures:*

- The use of dedicated entrances for homeworkers to enter the work site;
- Operation of appointments system to limit numbers of homeworkers on site at one time;
- Clear markings and demarcation of areas within which homeworkers must stay on site;
- Appoint on-site employees to assist homeworkers delivering and picking up work; and
- The use of raised loading bays to aid homeworkers when delivering or picking up work in their cars.

*Relevant Regulations:*

Workplace (Health, Safety and Welfare) Regulations 1992 (HSE, 1992 b).  
The Manual Handling Operations Regulations 1992 (HSE, 1998 b).

Hazard: Slips, Trips and Falls

*Who may be affected:*

- Homeworker; family members; consider vulnerable persons (e.g. new or expectant mothers, young children).

*Consequences/How affected:*

- Physical injury.

*Control measures:*

- Keep work areas tidy and clear of obstructions or objects lying around that may cause person to trip. Clean spills up immediately;
- Provision of appropriate storage cupboards/containers;
- Arrange furniture in order to avoid trailing wires;
- Ensure mats are securely fixed and do not have curling edges;
- Try to avoid changes of level;
- Ensure suitable footwear;
- Ensure adequate lighting.

*Relevant Regulations:*

The Management of Health and Safety at Work Regulations 1999 (HSE, 2000 a).

Hazard: Isolation

*Who may be affected:*

- Homeworker.

*Consequences/How affected:*

- Stress and depression.

*Control measures:*

- Regular face to face contact between company representatives and homeworker;
- Same information and support for homeworkers as on-site workers, including information on social events;
- Facilitate communication with other homeworkers and on-site workers;
- Homeworkers should take regular breaks.

*Relevant Regulations:*

The Management of Health and Safety at Work Regulations 1999 (HSE, 2000 a).

Additional hazards:

Additional hazards that may be appropriate to consider include the risk of injury to feet from small pieces of wire if left on the floor when cut (especially if children or pets are present). Control measures may include the use of an industrial vacuum cleaner.

#### **4.4.2 Examples of Health and Safety for homeworkers**

This section presents the findings from interviews with three companies in the electrical and electronics sector regarding the health and safety management of homeworkers.

##### **4.4.2.1 Company A: Manufacture of electronic components**

###### **1. Background:**

Company A is a family owned company employing approximately 100 people, 30 of whom work regularly from home. It manufactures electrical components (transformers, wound coils and inductors etc) and has been in operation since early 1980, including 15 years on the present site.

The company is involved in all stages of the production process for the electrical components, including design and final testing. The production processes vary depending on the electrical component that is produced, and homeworkers can be involved in a wide variety of operations. Some components require homeworkers and on site employees to wind coils of wire around a ferrous or plastic core. Other operations involve stripping a plastic sheath from wire cables, assembly work, and using a soldering iron to connect the ends of wires to contacts.

Homeworkers have been considered a valuable part of the production process for over 17 years. Homeworking started with employees being asked to take work home to meet production demands. Two employees work permanently from home. Homeworkers are paid on a piece-rate, but are contractually employees of the company, and receive the same benefits as regular employees (including holiday pay). The health and safety manager acknowledges the importance of the homeworkers to the company,

‘I wouldn’t go so far as to say that the company wouldn’t exist without homeworkers, but certainly it makes a big difference to us.’

Most homeworkers are longstanding employees who regularly work on site and are given the flexibility to take work home. This flexible working allows the company to set fixed costs for the processes to produce a component, which provides a clear idea of profit margins, which isn’t always possible for factory based workers. If a homeworker is given a job to complete at home, a date for the job to be finished can be established. This cannot always be done for factory-based workers, as their schedule can be interrupted by other production requirements. Giving one specific production job to a single worker also allows the company to assure the quality more effectively than if the work was spread over several workers in the factory. The health and safety manager also feels that some of the homeworkers are happy to do the work in the home environment, but would not be so happy doing the job in the factory.

A further advantage to the company is that homeworkers are able to complete an order over a weekend to meet a customer deadline. However homeworking has not been found to help meet orders that require completion on the same day. Homeworkers deliver and pick up work from the factory according to their personal needs or schedules. Some have set days, while others work on an ad-hoc basis.

Homeworkers have the flexibility to choose the amount of work they do each week and thus the number of hours they wish to work. One of the homeworkers (who is near retirement age) works eight hours a day. She works in the factory for five hours, and then works the remaining three hours at home so she can spend time with her husband who is retired. Another of the homeworkers who experiences musculoskeletal pain (not specifically caused by his work), explained that the freedom to manage his own workload allowed him to meet his production targets without exacerbating his condition. Another homeworker identified that the flexibility to fit in with childcare commitments was the main benefit for her.

## 2. Equipment used:

The company provides and maintains the following equipment, though the actual equipment provided for each homeworker depends on the task they are doing:

- Winding machine
- Wire stripping machine (to prepare wire for solder)
- Hand laminating machine
- Portable testing meters
- Soldering iron
- Taping machine
- Glue gun
- Hot air gun
- Mask
- Gloves
- Portable fume extractor

If equipment needs to be serviced or repaired, homeworkers return it to the factory. If it is a large piece of equipment then the company will pick it up from the homeworker's address. There is a program for testing electrical equipment, though the schedule is not up to date.

## 3. Health and Safety Management:

The Company employs a part time health and safety manager who also works as a production supervisor on the shop floor. She has experienced all aspects of the manufacturing process, and has been with the company for 14 years, six of which have been in the position of part time health and safety manager. Five hours of her working week are formally allocated to dealing with health and safety issues. She tries to devote the last hour of every day (when production has finished) to health and safety issues, but in reality production pressures can interfere with this plan,

‘If everything we have to get out at the end of that day hasn’t actually occurred, I’m usually one of the ones still trying to get it out of the door.’

Two of the production operatives are also first aiders. A shop floor union official represents the views and interests of homeworkers on a management committee that meets annually. Health and safety issues can be dealt with at this time.

The company has a documented health and safety policy, provided by a business advisory services agency. The health and safety documentation includes all the required sections, including those for COSHH assessments and accident reporting. Although the health and safety manager feels the health and safety documentation is quite general, she stresses it was developed in conjunction with senior management after representatives from the business advisory services agency visited the factory. She feels there is a trade-off between the

generalized nature of the health and safety documentation, and the time saved in having a ready documented system.

‘It is very general but it just saves me having to make up forms myself.’

In addressing health and safety for homeworkers the health and safety manager has referred to existing risk assessments for machines and production processes (provided by the business advisory services agency), as well as the HSE website and literature, including the HSE leaflet ‘Home working: Guidance for employers and employees on health and safety’ (HSE, 1996 c). When the health and safety manager started in her position of responsibility, she found it useful to read HSE’s introductory leaflets to health and safety such as ‘An Introduction to Health and Safety’ (HSE, 2003 a) and ‘Five Steps to Risk Assessment’ (HSE, 1998 a).

#### 4. Risk assessment:

Risk assessments are based around specific machinery and operations (e.g. coil winding, soldering and manual handling etc) that are performed in the factory. The managers of the production sections and shop floor operatives are consulted during the assessments. The risk assessments also apply to homeworkers if they perform any of the operations (that have been risk assessed) in the home. A record is kept of homeworkers and:

- The type of work undertaken
- Equipment used
- Substances used
- Relevant assessments
- Hazards/risks
- Training

The health and safety manager does not formally assess the home environment of each home worker due to time constraints. Though there are plans to make such home assessments in the future. If a homemaker is involved in winding operations, the health and safety manager (or production staff from the factory) will visit the home to help set up the machine for the homemaker. Due to the long-standing relationships developed with the homeworkers, the health and safety manager has some informal knowledge of homeworkers’ home environments. The health and safety manager informally assesses each person chosen to work from home to identify their ability to cope with the hazards posed by particular tasks, their home situation, and the presence of vulnerable persons.

‘It’s the matching of the work to the person and their abilities and skills, and their home situation.’

The health and safety manager allocates the tasks to homeworkers she feels can safely perform the tasks, and whose home environment is appropriate to the nature of the task. The company insists that machines are operated in a safe area of the home away from children. Children are particularly felt to be at risk from trailing electrical leads, or from sustaining an injury from the rotating mechanisms of some of the machines. For example, homeworkers with small children would not be given tasks involving a winding machine.

‘There is the issue of machine safety. We pick and choose who we give machines to...we’ve got someone here with six young children, and she’s asked for a winding machine to do more work, and we’ve just said “no” as it’s not a safe option.’

The health and safety manager feels that she is constantly assessing the risks informally (and reviewing the risk assessments), as she is involved in production on the factory floor, and so is aware of any change in working practices. She draws on her personal experience as a production manager and the documented risk assessments to identify the potential presence of hazards related to the tasks. The health and safety manager feels that direct experience of the production processes is important for assessing the risks as,

‘If you come from the outside, you don’t know what the hazards are really’.

Ventilation in employees’ homes is not felt to be sufficient in comparison to the on-site ventilation. The health and safety manager feels that tasks that are considered an acceptable risk in the factory (e.g. using a hot air gun to take off the plastic sheathing from wire) can become a higher risk at home due to the decrease in ventilation. She feels it is necessary to consider the interaction of the task and the home environment when assessing risks for homeworkers, and not just to focus on the processes of the task itself.

‘If you do it here [in the factory] you just don’t notice because it goes up and out.’

The importance of relating the task to the home environment was emphasized by one of the homeworkers,

‘...if you take a job and put it in your home environment...the job is different in your home environment.’

The health and safety manager considers estimating the risk from hazards to be the most difficult aspect of conducting a risk assessment, as the decisions are not grounded by any objective measurement.

‘I do find it very difficult to gauge whether it is a low, medium or high risk...it really is very subjective isn’t it.’

Information for COSHH assessments is taken from the safety data sheets, route programs (which give information of the processes in which the substance is used), and observing how the operator uses the substance. The COSHH assessments are also reviewed subject to incidents involving the substance. The health and safety manager has found that information on the data sheets is not always accurate. One data sheet indicated that the substance would become solid if it came in contact with a person’s skin or eye, allowing it to be washed away. This proved not to be the case, as the substance took a layer from one operative’s cornea, when it came in contact with their eye. Operatives now wear eye protection when using this substance as it was unable to be substituted. Another substance that was supplied was described as potentially carcinogenic on the data sheet. The health and safety manager asked the supplier to find a substitute substance, which they did.

##### 5. Training and Information:

During induction training the health and safety manager explains the ‘Employee Health and Safety Handbook’ with the new employee. This handbook contains all the essential information from the health and safety documentation. She also gives training and information for health and safety issues relating to the specific production tasks that the operative will be undertaking. Homeworkers are trained on-site to produce components and operate equipment to the required competency, before working at home. Employees are given route sheets to help them to remember the details of a production process.

A training sheet advises homeworkers of the potential hazards and safety practices associated with each operation. The risk assessment for the operation provides information for these training sheets. The head of the department for that operation then uses the sheet to train homeworkers. The training sheet for dip and hand soldering gives information on controlling health risks from rosin (colophony) based solder flux, and safe working practices. The sheet also includes the HSE leaflets on 'lead and you' and 'Solder fume and you', as well as details of health screening provided by a medical services company.

Health and safety information is provided by a business advisory services agency. There is a hotline that the health and safety manager can call if she is unsure of a particular aspect of health and safety guidance. This has been used for checking COSHH information regarding the safe use of different types of solder. The health and safety manager was unsure whether operatives should wear eye protection while using solder baths. As a result of advice from the business services agency eye protection was not adopted as the chance of operatives getting solder in their eye was judged to be very low.

#### 6. Communication and guidance:

The health and safety manager is the main contact for homeworkers. Homeworkers indicated that they had a good relationship with their manager and would not have any concerns about communicating problems. The informal relations were considered to be very important in facilitating communication, and in some cases had developed over a number of years. It was explained that most issues are sorted out informally as they arise. Homeworkers also have regular contact with management when picking up materials and dropping off finished components.

The health and safety manager was critical of generalist health and safety information and guidance, and is careful to present advice in a more specific form that people will readily understand. The Health and safety manager found it time consuming to relate general guidance to the specific production practices and working environment of the factory. The difficulty was in interpreting the advice so it was relevant to, and addressed the particular hazards and practicalities of the workplace. She explained that the guidance might talk generally of the danger of moving machinery, whereas she might explain this more specifically in the risk assessments as

'There is a risk of catching your hand on a rotating bobbin.'

#### 7. Incident and Accidents:

Homeworkers are required to report any incidents to the health and safety manager and record the incident in an accident book. Homeworkers stated that they felt they would be personally responsible for any injuries they sustained. This sense of personal responsibility was reinforced by the homeworker being in their own home as it is an environment over which they have control. There is potential for homeworkers to under report incidents due to their sense of personal responsibility, especially minor cuts and burns. Homeworkers stated that they would only report an incident if it required professional medical attention, incidents not requiring this level of attention would not be reported.

A homeworker encountered difficulties with fumes when heating the plastic coating of wire in order to strip it. In this case the issue of inadequate ventilation in the home environment was addressed by using a local portable ventilation hood, which extracted and neutralized the fumes.

#### 8. Health problems:

In general the health problems that were identified by homeworkers were of a musculoskeletal nature, in part due to the repetitive nature of the work. Homeworkers adopted individual coping strategies, motivated by the desire to maintain a level of performance so that their rate of pay was not compromised. One woman explained that the daily process of winding and rethreading wire around a bobbin caused her fingers to go numb. For this reason she would only work on jobs that used thin wire. Homeworkers talked about the importance of correct posture to work effectively at a machine. One explained that she needed to move constantly to avoid getting numb. Another asked where he could get advice on sitting correctly.

#### 9. Difficulties encountered:

The health and safety manager explained that the main difficulty in addressing the health and safety needs of homeworkers involved assessing whether people were following procedures whilst unsupervised at home.

“It is easy to make an assumption that people are using the right equipment when they aren’t.”

A method used by the health and safety manager to identify hidden health and safety problems is based on informal communication. This involves encouraging homeworkers to talk informally about cuts, burns, posture, shoulder and upper arm strain. She explains that

“If they didn’t tell, you wouldn’t know what they were doing.”

The health and safety manager stressed the importance of homeworkers communicating work issues and giving feedback to her, to help her be aware of, and address health and safety issues.

‘They’re there on their own, and unless they relay information back to you they can carry on for years and you wouldn’t know.’

The health and safety manager considered feedback from homeworkers regarding health and safety issues as important in allowing her to have a full picture of what was going on,

‘It’s closing the loop really, it’s two-way communication.’

Time and resource constraints also had implications for the health and safety issues that could be addressed, particularly for keeping maintenance schedules up to date,

‘I’d like to take our portable appliance testing person out with me, but that’s two people out of the factory for x amount of hours.’

#### 10. Impact of Health and Safety measures:

The health and safety manager stated that one of the reasons that the company addressed the health and safety needs of the homeworkers, was that no distinction was made between them and the factory based employees. Also it was felt there was a business case for addressing the health and safety needs of homeworkers as,

‘If you’ve got healthy, happy homeworkers then the work’s coming in. If you just don’t address the problems...then you don’t get the work back.’

#### 11. Further Actions:

The health and safety manager is planning to formalize the approach to risk assessment in all homeworkers’ homes.

‘I’d like to get a feel of the room, where the machine is set, where they are sat working, lighting and seating. There are all sorts of issues.’

#### **4.4.2.2 Company B: Manufacture of printed circuit boards**

##### 1. Background:

Company B is a small organization that employs 20 people and has been in operation for three and a half years. It is part of a cluster of interrelated engineering lighting companies situated in the same business park. The company designs and manufactures printed circuit boards (PCBs). Two employees work permanently assembling PCBs from home. A third is presently factory based having worked from home previously. Two other homeworkers are contacted when work demand requires them. The homeworkers are self-employed contractors, who are invoiced by the company for the work they have done.

The company is involved in all stages of the production of PCBs. The production stages include: the interpretation of the initial customer ideas; the design and assembly of the PCB; the sourcing of electrical components; subcontracting the assembly; testing; the packaging of the product; and delivery to the customer. The company allows its customers to buy services at any stage of this process.

Homeworkers solder a variety of components onto PCB boards. The board is held firmly in a flip jig whilst components are soldered in place. The jig is flipped over after a component has been soldered in place, and the remaining thin metal legs of the components (which protrude from the base of the board) are snipped off with clippers.

The equipment to complete each job is delivered to the homemaker’s house as a full kit, which includes a job description sheet. The completed PCBs are collected by the company.

The procurement manager explained that homeworkers are considered a valuable resource to the company because they allow the company to meet changes in customer demand and respond quickly to new orders. They are particularly useful at completing work if a full time employee is off sick. For simple jobs, outsourcing the work to homeworkers was considered more cost effective than producing the work in-house.

The company attempts to develop a culture of self-responsibility amongst its staff. People are selected at interview who are well organized and responsible in their approach to work. They are expected to “fit in with the group” and require minimum supervision.

The homemaker had chosen homeworking to enable her to structure her work life around childcare responsibilities. A further advantage (when she was factory based) was that she did not have to take time-off during school holidays, as the company allowed her to

‘Take the work home and do it there.’

##### 2. Equipment:

The company provides the following equipment for homeworkers:

- PCBs
- Soldering iron
- Different sized soldering tips
- Flux
- Clippers

- Goggles
- Antistatic discharge wristband
- Portable fume extractor
- Flip Jig

The electrical equipment used by homeworkers is initially tested by the company. It is the responsibility of homeworkers to notify the company if there are any faults with the equipment, or if it needs servicing.

### 3. Health and Safety management:

Because of the small size of the company, no single person is solely responsible for health and safety management. The company expects all staff to be aware of, and take responsibility for, health and safety issues relating to production. The staff have been well trained in previous employment. The appropriate experience and training are pre-requisite criteria for selection of personnel.

### 4. Risk assessment in the home:

Company B does not carry out a formal risk assessment in the employee's home. Health and safety risk issues were informally addressed during the homeworker's induction training.

A homeworker stressed it was important to understand the health and safety issues involved in a job before working from home, particularly whether the nature of the job was suitable for the home environment. She thought it was valuable to consider information from safety data sheets, and whether the job would allow her to maintain an uncluttered home environment. She also considered whether the materials she would be using could lead to manual handling difficulties. Potential risks to children and vulnerable persons were assessed informally. The homeworker emphasized that her current work is best done in a separate room to children, and preferably when they are out at school.

### 5. Training and information:

All homeworkers employed by the company have previous work experience of assembling PCBs. Selection criteria requires them to have been previously trained to solder and operate the jig machinery. Several companies in the area train workers in such manufacturing techniques.

During training there is an emphasis on good housekeeping. There is an expectation that staff clean their workstations when finished, and are aware of the effects their behaviour can have on other company members. It was explained that if someone began to neglect this duty,

‘They would be pulled up by other people.’

Homeworkers are verbally coached and prompted in good health and safety practice by the procurement manager. He emphasizes the use of safety equipment such as goggles or gloves with particular aspects of production.

Homeworkers work on simpler projects than in-house staff. During on-site training, homeworkers are shown specific processes for each type of PCB, and given tips on how to work effectively at home. Only when the homeworker is satisfied that they can do the job, does training finish and they are allowed to work from home.

Each job a homeworker accepts is delivered to their house as a kit of between 30-40 components. A job sheets accompanies each kit with assembly instructions and health and safety information, for example that this job requires the homeworker to wear goggles.

Homeworkers are encouraged to regard the PCBs they complete as an important part of a final product, and not a discrete component. Homeworkers are shown the completed product assembled from the PCBs that they produce. The homeworker claimed this increased her understanding and appreciation of the work she was carrying out,

‘It was satisfying knowing if you’d done the boards, and you knew what it was when it were goin’ out the door.’

#### 6. Communication and guidance:

Company B encourages an ‘open door, open talking policy’ between staff and management. The production manager felt that this open network contributed to the informal but effective way that health and safety information was communicated. However, it was emphasized that this feature was dependent on the small size of the company, and that these informal networks would not be an effective way of communicating in a larger organization.

The homeworker indicated that she had an excellent relationship with the company, and would not have any concerns about communicating problems with either the managing director, or the procurement manager.

‘Some companies, if you phone you can never get through. Whereas here, if the managing director was in a meeting he would get back to me in half an hour.’

The company considers a sense of belonging and ownership of work for homeworkers is important. No distinction is made between homeworkers and employees as members of the company. The homeworker explained that on one occasion when the company had met a sales target, all the homeworkers and employees were invited for a celebratory night out. This provided an opportunity to meet other employees, and encouraged a feeling of belonging to the company for the homeworkers.

#### 7. Incident and Accidents:

There have been no accidents reported by homeworkers. A homeworker explained that she would only report an incident if it involved heavy lifting or chemicals. She would regard solder burns or fumes as her own responsibility, and would not report them.

#### 8. Health problems:

The procurement manager indicated that ventilation in the home environment was likely to be less effective than ventilation in the factory (e.g. due to lower ceilings), so the importance of local ventilation in keeping solder fumes away from the homeworker was reinforced.

#### 9. Difficulties:

Being tidy was felt to be an important consideration for homeworking. It was recommended that the work environment should be easy to clean and keep tidy. For example, laminate flooring was seen as preferable to carpet, especially when collecting the metal legs that are clipped off the components.

#### 10. Impact of Health and Safety measures:

A homeworker explained that by delivering and collecting materials to and from the home, the company had reduced lifting hazards from her work.

The procurement manager felt that the culture of self-responsibility and open communication in the company had an effect on health and safety management.

#### 11. Further Actions:

The procurements manager suggested that electrical equipment should be tested annually by an external company.

The procurements manager noted the planned substitution for lead free solder flux through out the industry by 2006, but the company had not yet completed this substitution.

#### **4.4.2.3 Company C: Electrical assembly and soldering**

##### 1. Background:

Company C is a small family run business which was set up 11 years ago. Five members of the family work at the company. They employ 25 people on site and five homeworkers who carry out light assembly, for example stripping wires and tinning (a process of twisting wires, putting them in flux and soldering). The company tries to prepare the work as much as possible to minimise the amount of clearing up required by the homeworker, for example, cutting wires and sleeving to the correct length. The majority of work involves hand manipulation and is repetitive. Homeworkers are all long-standing employees, who have either previously worked on site, or were recruited specifically as homeworkers, and were trained both on site and at the homeworker's residence.

The homeworkers receive the same employment entitlements as on-site workers (e.g. holiday pay, sick pay, maternity leave). Homeworkers are not guaranteed work or an income. However, during times when there is less work homeworkers can take holiday pay (they receive four weeks paid holiday per year). They can also refuse work if they so wish. The company operates a piecework system. It is estimated how much work can be completed in an hour and the homeworkers get paid for the number of hours they do. The system is open to negotiation if homeworkers cannot meet the targets. The homeworkers indicated that on average they work between 15 and 20 hours per week, and space their work across the week. They consider the main advantage of homeworking to be the flexibility to work around childcare commitments. One homeworker also indicated that she could pace the work to accommodate her recurrent neck pain.

##### 2. Equipment:

The company provides the following equipment for homeworkers:

- Soldering iron
- Lamp
- Flux
- Solder and pot
- Raw materials, e.g. wires
- Hot air gun
- Vice or jig
- Fan
- Extractor fan – if requested
- Scalpels, blades and screwdrivers
- Apron

Portable appliance testing (PAT) of electrical equipment is carried out prior to the equipment being given to the homeworker. The homeworkers are asked to report any problems with the equipment to the company.

##### 3. Health and safety management:

At present the company only provides written health and safety information for their factory employees. Communication of information about hazards and control measures to homeworkers is through word of mouth. However, the company is currently working with Business Link to review its health and safety policy, and to produce an employee handbook which will include information for homeworkers.

#### 4. Risk assessment:

The company has documented risk assessments, but they do not currently include homeworking. The risk assessments are being reassessed (again with the help of Business Link), and the company aims to incorporate homeworkers in these risk assessments.

#### 5. Training and information:

The company has had the same homeworkers for several years. Homeworkers are trained by experienced staff in how to carry out the work safely on site. They are also provided with 'job-cards' which explain how to carry out a task; these are included with each batch of work.

The company uses a variety of sources to acquire health and safety information, including: Business Link; the Chamber of Commerce; Investors in People; and through working for other companies.

#### 6. Communication:

The homeworkers have one main contact at the company. They have face-to-face contact with this person two to three times a week when work is delivered and collected. The homeworkers are invited to the Christmas party and other social functions. One of the homeworkers, who was going through personal difficulties, indicated that the company had offered to let her work on-site whenever she wanted to.

#### 7. Incidents and Accidents:

The company has an accident book on site. In general, the homeworkers do not tend to report minor burns and there have been no other reported accidents.

#### 8. Health problems:

The homeworkers reported only minor health problems associated with their work. One homemaker reported that she developed sore fingers when twisting wires over a period of time. She reported this to the company who provided her with rubber finger ends that helped to alleviate the problem. The homeworkers indicated that they were not affected by the solder fumes, although one (who was an asthmatic), reported that she would not solder if she had a cold. Some homeworkers did not like the fumes from using a certain flux, and so the company substituted it to for a water-soluble variety which had less of an odour.

#### 9. Difficulties:

The company felt that the main difficulty in addressing health and safety for homeworkers is in trusting homeworkers to work safely when they are on their own. The company regularly remind their homeworkers of safety issues. If an incident happens at the factory, they use this to remind homeworkers of health and safety issues and so reinforce safe working practices.

#### 10. Impact of health and safety measures:

The company feels it is important to protect their workers and to "look after people as best they can".

#### 11. Further action

The company is aware that they need to include homeworkers in their risk assessments, and aims to address this issue in the near future.

## 4.5 BUSINESS SERVICES/WORKING WITH COMPUTERS

### 4.5.1 Significant hazards and relevant regulations

The following provides a brief guide to some of the significant hazards in this sector you could reasonably expect to cause harm. Some possible health and safety consequences of these hazards are identified, as well as persons who may be at risk. A number of potential control measures to reduce the risk of somebody being harmed are also identified. This information is intended as a guide and there may be additional hazards and control measures that need to be considered.

*Hazard* means something that can cause harm.

*Risk* is the chance, high or low, that somebody will be harmed by the hazard.

#### Hazard: Display Screen Equipment

*Who may be affected:*

- Homeworker; family members; visitors; consider vulnerable persons (e.g. young children).

*Consequences/How affected:*

- Upper limb strain from seating position or repetitive movement.

*Control measures:*

- Machines provided are suitable for their intended purpose;
- Use and maintenance of machines is restricted to designated persons who have received adequate training;
- Machines are checked regularly and kept in a condition that does not cause harm;
- Provision of suitable seating;
- Homeworkers should take regular breaks.

*Relevant Regulations:*

The Health and Safety (DSE) Regulations 1992 (HSE, 2003 c).

#### Hazard: Work Equipment

*Who may be affected:*

- Homeworker; family members; visitors; consider vulnerable persons (e.g. young children).

*Consequences/How affected:*

- Cuts, burns, trapping, entanglement, electrical risks, noise and vibration, dust and fume and musculoskeletal strain or injury.

*Control measures:*

- Ensure work equipment is suitable for intended use;
- Ensure work equipment is safe for use, maintained in a safe condition and, in certain circumstances, inspected to ensure that this remains the case;
- Ensure a suitable standard of lighting is provided;

- Ensure suitable emergency stop controls are in place;
- Provision of PPE where other safeguards are not adequate to prevent risk when an irregular event occurs;
- Ensure that work equipment is used only by people who have received adequate information, instruction and training;
- Work equipment is accompanied by suitable safety measures, e.g. protective devices, markings and warnings.

*Relevant Regulations:*

The Provision and Use of Work Equipment (PUWER) Regulations 1998 (HSE, 1999 b).

The Personal Protective Equipment Regulations 1992 (HSE, 1992 a).

Hazard: Electricity

*Who may be affected:*

- Homeworker; family members; visitors; consider vulnerable persons (e.g. young children).

*Consequences/How affected:*

- Electric shock or fire.

*Control measures:*

- Domestic electrical system is adequate for the electrical equipment provided;
- Plugs are correctly wired and maintained;
- Electrical leads, wires and cables are appropriately covered and not damaged;
- Plugs, leads, wires and cables are checked regularly and kept in a condition that does not cause harm;
- Circuit breakers are installed;
- Smoke detectors are provided.

*Relevant Regulations:*

The Electricity at Work Regulations 1989 (HSE, 1989).

Hazard: Manual handling of office equipment

*Who may be affected:*

- Homeworker; family members; consider vulnerable persons (e.g. new or expectant mothers).

*Consequences/How affected:*

- Musculoskeletal strain or injury, particularly to the back.

*Control measures:*

- Avoid heavy, bulky loads or materials;
- Improve workplace layout to increase efficiency and reduce carrying distances;
- Avoid repetitive handling. Vary the work to allow one set of muscles to rest while another is used;
- Provision of suitable flooring. Avoid steps and steep ramps;
- When lifting is necessary, homeworkers must be informed, instructed and trained in good techniques to help reduce the risks;
- Provide lifting aids (e.g. trolleys).

*Relevant Regulations:*

The Manual Handling Operations Regulations 1992 (HSE, 1998 b).

**Hazard: Slips, Trips and Falls**

*Who may be affected:*

- Homeworker; family members; consider vulnerable persons (e.g. new or expectant mothers, young children).

*Consequences/How affected:*

- Physical injury.

*Control measures:*

- Keep work areas tidy and clear of obstructions or objects lying around that may cause person to trip. Clean spills up immediately;
- Provision of appropriate storage cupboards/containers;
- Arrange furniture in order to avoid trailing wires;
- Ensure mats are securely fixed and do not have curling edges;
- Try to avoid changes of level;
- Ensure suitable footwear;
- Ensure adequate lighting.

*Relevant Regulations:*

The Management of Health and Safety at Work Regulations 1999 (HSE, 2000 a).

**Hazard: Isolation**

*Who may be affected:*

- Homeworker.

*Consequences/How affected:*

- Stress and depression.

*Control measures:*

- Regular face to face contact between company representatives and homeworker;
- Same information and support for homeworkers as on-site workers, including information on social events;
- Facilitate communication with other homeworkers and on-site workers;
- Homeworkers should take regular breaks.

*Relevant Regulations:*

The Management of Health and Safety at Work Regulations 1999 (HSE, 2000 a).

## **4.5.2 Examples of Health and Safety for homeworkers**

This section presents the findings from interviews with three companies in the business services/working with information technology (IT) sector, regarding the health and safety management of homeworkers.

### **4.5.2.1 Company A: Business Services/Administration**

1. Background:

Company A is a Local Authority (LA) that employs 24 homeworkers, the majority of which are data processors. The work revolves around the administration of council tax, updating addresses, and amending bills etc. The forms are scanned at the 'County Hall' and sent

electronically to the homeworkers. The homeworkers have little contact with members of the public. Homeworking was introduced as a way of retaining experienced staff that would otherwise have left following the relocation of the council offices to a nearby town, and also to reduce costs and to increase efficiency for the LA. All of the Homeworkers previously worked in the council offices and were considered sufficiently motivated to work at home. Their performance is monitored by their output, which is based on number of hours worked and the amount of documents processed. One advantage of homeworking identified by the LA is that the output of the homeworkers is greater than that of the office based staff.

Nineteen homeworkers are employed on a full-time basis and are contracted to work 37 hours a week. Two homeworkers are employed on a part-time basis. They also work fixed hours which were negotiated according to their personal circumstances. Homeworkers who want to change the number of hours they work must request to do so in the same way as office based staff. Homeworking is recognised as a flexible working arrangement by the local authority, although a working pattern is agreed between the homeworker and manager, and any variation must be agreed. The homeworkers have a 12-hour (7.30am – 7.30pm) window in which they can log on to the computer network. The LA is considering extending this window to 10pm because of demand. The homeworkers are issued with a mobile phone through which they can be contacted. If the mobile is switched off it indicates that they are not working.

The homeworkers consider the main advantages of homeworking are that they do not have to travel to work (which they found both tiring and expensive), and they can work around childcare commitments. An additional benefit for the LA relating to this flexibility, is that homeworkers can adjust their working times when they have minor ailments rather than taking time off sick. The sickness/absence rate for homeworkers is approximately half the rate of office-based staff.

When the employee signs a new contract to become a homeworker, they lose the right to an office-based desk. If they wish to return to the office permanently they have to apply for a job when one becomes available.

The transition for office-based staff to move to working at home took between three and four months. The main delay was the wait for BT to link up the homeworker's computer to the LA network. The LA organised the move of the employee's computer and desk from the office to their home.

## 2. Equipment:

The company provides and maintains the following equipment for homeworkers:

- Computer
- Desk
- Chair
- Mobile phone
- Fire alarm
- Foot-rest
- Document holder
- Lamp
- First aid box
- Circuit breakers
- Wrist support for keyboard
- Mouse mat with wrist support

Maintenance of equipment is carried out by someone from the IT section who visits the worker's home. Annual portable appliance testing (PAT) is carried out for electrical equipment.

### 3. Health and safety management:

The LA manages health and safety for homeworkers in a number of ways. The company has a documented health and safety policy which is provided to all homeworkers. The LA has also provided guidance and an information pack for managers to help them manage homeworkers effectively. The guidance includes procedures to assist managers in deciding which tasks within their section can be performed by homeworkers, and outlines the issues that they should consider before agreeing that employees can work at home. The homeworking information pack for managers includes:

- The policy on homeworking
- An outline of the competencies required for managing homeworkers, including
  - The ability to manage by high levels of trust and low levels of control
  - The ability to empower staff to work independently
  - The ability to set clear goals and targets, and manage staff against them
- Health and safety guidance notes
- The procedures for homeworking
- Homeworker risk assessment form
- Health and safety monthly inspection form
- Example risk assessment

The homeworker's team leader or supervisor is required to carry out a health and safety check of the homeworker's house every three months. This check is to ensure that the chair is still suitable and in good working order, that the leads to the computer are undamaged, that the work area is still accessible (and to carry out a DSE assessment if necessary), and that the first aid box is fully stocked and the contents are in date. The check also includes a discussion of welfare issues with the homeworker. Homeworkers are encouraged to take responsibility for their own health and safety and keep their front door locked. Visitors from work, including IT support, must make prior arrangements for their visit with the homeworkers.

Homeworkers are given a home workplace inspection form to complete on a monthly basis. The checks to be completed by the homeworker are similar to the three monthly checks carried out by the homeworker's team leader.

### 4. Risk Assessment:

Risk assessments are carried out when the employee becomes a homeworker. The health and safety guidance notes state that managers should treat homeworkers as lone workers and ensure that the risk assessment considers the security of the homeworker. The risk assessment takes into consideration the location of the homeworker's desk and equipment, accessibility to the desk, and whether there is adequate light and ventilation (the windows must be able to be opened) within the accommodation. Pets are also included in risk assessments to assess the likelihood of animals chewing through cables, or jumping on and damaging work equipment. Homeworkers are requested to notify their managers if they, or a member of their household, becomes pregnant. In this instance, the guidance notes indicate that a new risk assessment should be carried out which considers the pregnancy period. The process should be repeated when the child is born, and again at quarterly inspections to take account of the child's development. The homeworker is also required to give details of childcare arrangements (for children under the age of 16) whilst they are working. The risk assessment also includes vulnerable family members (for example, the elderly and children) and takes into consideration mental and physical infirmities of this vulnerable population. Stress and isolation of the

homeworker is also acknowledged, and the risk assessment presents effective measures to reduce the effect of these.

A fire risk assessment is also carried out to identify any fire hazards in the work area. This risk assessment identifies the people in the household who may be at risk from fire, and evaluates the risks of a fire occurring (including reviewing existing fire precautions and exits to see if they are adequate). Smoke alarms are provided, and it is ensured that they are effectively situated.

#### 5. Training and Information:

Health and safety information is given to the homeworkers through a series of half-day training sessions, which are organised whilst they are still based at the office. Training includes:

- Time management
- Communication
- Basic PC awareness
- Health and safety training revolving around VDU usage, including advice on resting eyes, lighting levels and direction, and VDU positioning etc.
- First aid – how to use the equipment in the first aid box

#### 6. Communication:

The line manager is the main contact for homeworkers, along with a supervisor. The supervisor is also a homeworker who deals with welfare issues, and visits other homeworkers on a monthly basis. Homeworkers are given prior notice of any visits by line managers, supervisors and IT workers.

When the homeworking system was first introduced, homeworkers would contact each other regularly and provide mutual support. This initial level of contact has decreased over time, though homeworkers report that they still support each other, and keep in contact with the office by telephone and e-mail. Homeworkers are kept informed of office developments through e-mail.

#### 7. Incident, Accidents and Health Problems

The training for homeworkers addresses the importance of posture and taking breaks away from the screen. It also informs them of exercises that they can do at the desk, the effect of glare and where lighting should be directed. The homeworkers find that there is less distraction at home so they have to ensure that they take enough breaks.

#### 8. Difficulties

The LA did not experience any major difficulties in addressing health and safety for homeworkers because the organisation was already committed to the health and safety of all its staff. The health and safety systems in place at the office were adopted for the use of the homeworkers, taking into consideration issues relevant to homeworkers such as lone working and isolation.

#### 9. Impact of health and safety measures

The LA believes the number of health and safety measures in place for homeworkers makes them feel valued, and helps to motivate them in their work.

### **4.5.2.2 Company B: Telecommunications**

#### 1. Background:

Company B is a large multi-national company with over 170,000 employees. The company provides telecommunications services. It is estimated that currently 4-6% of employees are home based, this translates to approximately:

- 7,000 home-based workers
- 63,000 flexible workers, and
- 108,000 office based workers.

Home-based workers are employed exclusively from home, whereas flexible workers are both home and office based. All groups of workers are treated as full employees and share the same contractual conditions. The three flexible workers who were interviewed, estimate that they usually work from home two days a week. All three participants work for the Business Development and Consultancy team.

Company B has been involved in introducing formal flexible working practices since 1992. Around this time there were 232,000 employees, where as now this number has reduced. The introduction of home-based and flexible workers has been driven by the business case. Initially the driver to encourage flexible working was the reduction of property costs for the company. It is estimated that property costs have been reduced by £220 million since flexible working practices were introduced.

Home-based and flexible workers are contracted for 37.5 hours a week, though the participants felt that they generally worked more than the contracted hours (one of the participants estimated in excess of 45 hours a week). The flexible workers felt there is a trade-off with the increased hours, as they gain flexibility over managing their working hours. Among the benefits cited by the participants were:

- Reduced property costs for the company;
- Worker flexibility;
- Increased productivity;
- Productivity was linked to increased flexibility through effective time management, particularly in attending to childcare issues, or scheduling tasks that require greater concentration such as writing proposals;
- Not having to commute, which results in time and financial savings;
- Worker satisfaction (according to an internal survey by company B, home based workers are around 7% happier than office based workers).

There were a number of perceived disadvantages:

- ‘Teleworkers turn into teletubbies’- despite the flexibility and good intentions, participant three never manages to ‘pop’ to the gym;
- Possibility of isolation- participant three actively maintains a network of colleagues, and makes a conscious effort to socialise with them;
- The noise from home can make it impractical to conduct telephone conversations with clients, though participant three is able to manage calls with a browser.

The home is never used for meetings, and line managers would never turn up at an individual’s home like they would in an office. Meeting rooms at any of the company offices can be booked online. Individual’s home addresses are also protected by the use of the company post box, from which mail is forwarded to individuals or a specified default address.

2. Equipment:

Home-based and flexible workers are given the choice between 250 items of office furniture for use at home, e.g. tables, desks, chairs, waste bins etc. They are allowed to spend £650 on any combination of items to ensure they have a home-office set up which complies with the health and safety requirements of the company. They can also supplement the amount of £650 with their own money. The wide range of choice is designed to encourage people to buy into the system, and to buy furniture that suits the décor of their home. This system is organised by a management services company, who deliver and install the furniture to the required standards.

Home based and flexible workers are also supplied with:

- A laptop computer
- ISDN Home Highway (not broadband, but a dedicated line with 3 channels for phone, fax and internet)
- Full size computer screen
- Full size keyboard
- Docking station for lap top
- Secure ID access
- Team phone- allows user to direct phone calls to a dedicated number, to take permanent or temporary messages, e.g. to send a voice mail to a team
- Audio conference facilities
- Integrated fax/scanner and printer

A first aid kit is not provided as standard, though one can be purchased through the company, as can a power surge protector.

A template letter is provided for individuals to send to their insurance companies to inform them that they will be working from home. Individuals are encouraged to itemise the company equipment and to get a letter of confirmation from the insurance company. It has been found that homeworking has not generally increased insurance premiums. It is felt that home working should in fact reduce the insurance risks as people are not leaving their property unattended, and Company B insures most of the equipment.

Computers are intended solely for business use, but there is a certain amount of freedom for personal use within accepted criteria. All employees are given Internet access, and there are internal security systems to warn users if they access improper content. Technical services can check the computer when it is brought into the office, and the machine can be seized if any improper content is found and disciplinary procedures implemented.

Portable appliance testing (PAT) for electronic equipment is organised annually. The testing can be done at the individual's home, or they can bring the equipment into an office. Electrical leads and lamps are also included.

### 3. Health and safety management:

All issues are dealt with initially by the homeworker's line manager. Individuals are managed according to personal objectives, which relate to the broader group objectives. There is a monthly assessment by the line manager to gauge how the individual is meeting their objectives. If this measure of productivity is not felt to be sufficient, then home-based workers can be given a month's notice to return permanently to the office. Issues relating to health and safety can be addressed at this monthly assessment meeting. Homeworkers can also contact the human resources department if they feel there is an issue that cannot be dealt with by their line manager.

### 4. Risk assessment:

For those people who spend a significant amount of their time working at home it is necessary to undertake a formal risk assessment of the health and safety risks that they face. For others who work from home but spend most of their time on customer's premises or at different company locations, or who only work at home occasionally and have dedicated facilities at a company site, a formal assessment in connection with homeworking is not usually carried out. These people must however be advised of the potential health and safety risks associated with working at home, including risks to other members of the household, especially children.

If a dedicated place of work is needed at the home (e.g. spare bedroom, corner of the lounge) in order to carry out professional responsibilities, this area must be treated as a place of work during working hours, and is subject to a formal risk assessment. Other areas of the house are not considered to be part of the place of work although homeworkers are expected to visit other parts of the house during breaks in the work.

Previously, the individual was not allowed to assess their own home, and the assessment was carried out by a competent person (usually the line manager) who visited the individual's property. Now, the procedure is based on annual self-assessment, with the line manager checking the self-assessment form and discussing the results, but not visiting the individual's property. The risk assessment is similar to a normal office risk assessment, looking at such issues as lighting, ventilation and power. The risk assessment form asks the homeworker to list others who will have access to the work area (including pets), and to take these into account when assessing the risks. The risk assessment form consists of 12 questions:

- Is the workplace suitable?
- Is the workplace large enough?
- Is the lighting adequate?
- Is the furniture adequate and comfortable?
- Is the work area reasonably secure?
- Is all the work equipment in good working order?
- Is all electrical equipment in good working order and tested?
- Is the cabling tidy?
- Is heating and ventilation adequate?
- Are storage facilities safe and adequate?
- Are only company approved office supplies used?
- If the homeworker is a DSE user has the training been completed?

Part of this self-assessment procedure is to draw a plan of the area that is used for home working (for evidence in the event of litigation), in order to make a clear distinction between the area of the home that is used for work, and the area that isn't. This completed form is then sent to the line manager, who ensures that any outstanding action points are addressed. It is important for the line manager to have confidence in what people are doing, but also to have a record that indicates what was done and when. If there are particular issues to be dealt with, such as back problems, equipment can be ordered specially to deal with the problems, e.g. chairs with back supports. Once the risk assessment is authorised by a line manager and signed by the homeworker, this is taken as an agreement by the homeworker not to alter the work area.

#### 5. Training and Information:

There is a dedicated website for health and safety information, and a single point of contact for health and safety issues, available 24 hours a day. There is no difference in the approach to communicating health and safety issues to homeworkers or office-based workers.

Employees are provided with a copy of the company's health and safety policy, and updates are sent via email. As part of the initial online signing on process the, home-based worker is required to read the health and safety policy.

There is employee assistance for legal problems, health problems and counselling. Line managers are also able to get occupational health assistance, and there is access to a chief medical officer.

#### 6. Communication:

The group instigates working practices to build in 'face time' to deal with the problem of isolation that can be faced by home-based and flexible workers. There are monthly team meetings, a monthly assessment meeting with the line manager, a weekly audio call, and intermittent collaboration days (where the group all use the same hot desks).

#### 7. Incidents and Accidents:

There is a dedicated Human Resources (HR) telephone number for reporting accidents in the home, as well as a reporting facility on the intranet. In the case of such incidents the line manager is also notified. None of the homeworkers had needed to report any accidents.

#### 8. Health problems:

One of the participants did have back problems, but reported it in the health and safety check, and was able to get a new chair once her line manager had authorised the request.

#### 9. Difficulties:

The participants feel that home-based workers tend to work through minor ailments, as it is easier to manage certain tasks at home (e.g. dealing with emails) when you do not have to commute to an office. One of the participants feels that the company expects employees to work through sickness, as there is pressure to maintain a clear sickness record. They stated that it is harder to recover from a minor ailment, as the pressure to work through the illness at home prevents the individual from getting sufficient rest. The participant believes that the benefits to home-based working are double edged, and that the flexible working policy is driven by the business case at the corporate level, particularly as home-based workers are regarded as more productive than their office-based counterparts. The participant quoted the national average for days sick as 8.5%, compared to the average of 3.1% for Company B's flexible workers. The participant has not taken a sick day for ten years, and regards the fact that employees are more likely to work at home when sick, than in the office, as a great advantage to the company.

One of the participants feels that the issue of trust with line management is important when negotiating flexible working. Their current manager believes in flexible working, and leads by example, in that he will take half a day off if he has worked a long week. The participant's previous manager did not encourage home working by example, and so they were made to feel guilty if they took flexi-time. The manager asked the participant to prove that they had earned the flexi-time, and so consequently the participant felt they were not trusted. The participant also believes that it is important for managers of virtual teams to be more compassionate than with non-virtual teams. Managers need to be more demonstrative, as it is difficult to gauge a person's emotional reaction and feed back when you are not in direct contact with them. The participant feels that this is also indicative of the need for more formalised feedback with virtual teams, both from management and team members, in order to let individuals know what others are doing.

#### 10. Impact of health and safety measures:

One of the participants feels that one of the main issues that impact on a worker's wellbeing is whether they are trusted to work on their own without direct supervision, particularly when they

cannot be observed by management. The participant believe that Company B is flexible so long as the work gets done, and that due to the performance based management system, people get found out if they are not working. The perceived lack of trust can have implications for productivity

‘If you make it hard for people to work, they won’t’.

#### **4.5.2.3 Company C: Utilities Company**

##### 1. Background:

Company C is a large utilities company with approximately 11000 employees. It generates and supplies gas and electricity to almost five million customers in the UK. Around 20 employees from customer accounts, and 25 salespeople work from home. Between five and ten managers spend two to three days a week working at home. In customer accounts staff send bills, update customer records, and deal with telephone enquires. Work is reactive and dependant on customer demand. Homeworkers are provided with a PC and have the same access to the company computer systems as office based workers. Homeworkers are required to work one day a week in the office.

The main advantage for the company to employ homeworkers is that it allows them to manage surges in the number of customer calls outside regular office hours, such as when the electricity network has failed and customers call to report the supply failure. Employees based at home are able to connect to the network within a few minutes of being requested, whereas office based workers are unable to respond immediately to such situations out of office hours.

Further benefits of homeworking have been identified by the company. The retention of staff results from homeworkers being able to avoid difficulties with commuting, and balance childcare commitments with work more effectively than if they were office-based. The use of home-based workers has also helped ease problems caused by of office space being at a premium.

All homeworkers spend six months to one year working in the office. Only staff who are identified by managers as being self-motivated and organised, with the ability to psychologically cope with working alone are allowed to become homeworkers. This decision is made informally by managers based on their intuition or ‘gut’ feeling, and personal knowledge of the employee.

Central to this selection decision is the manager’s perception of whether staff can be trusted to work without direct supervision and still maintain productivity levels. During the selection interview staff are asked whether they would be able to work uninterrupted at home, and have sufficient and suitable space for a workstation. If the responses are positive the company will proceed with a risk assessment of the home. If the results of the risk assessment are satisfactory then the employee can become a homeworker.

##### 2. Equipment:

The company provides the following equipment for homeworkers:

- Desk
- Extension leads
- Desktop PC
- Laser printer
- 17 inch monitor

- Additional lighting
- An adjustable chair
- Telephone and data link

Homeworkers are given the opportunity to choose desks to be in keeping with their home décor. Adjustable chairs are provided to meet DSE regulations and ergonomic requirements. Electrical equipment and computers are installed and maintained by technicians who visit the workers' homes. There is a program for portable appliance testing (PAT) of electrical equipment.

### 3. Health and Safety Management:

The company employs a health, safety and environmental manager who has always worked in the electricity generating industry, and has been in his current position for around two years. He is involved entirely with the needs of the customer services branch. There are also six health and safety managers employed across the company who can provide additional advice. Occupational health provision is provided by a consultancy, and all employees have access to a company physician.

Staff are made aware of the health and safety responsibilities of personnel at all levels of the organisation. Line managers are responsible for risk assessments and checking the DSE assessments, they are the first point of contact for any issue with an employee. If employees cannot raise an issue with their line manager they can deal directly with the HR department, or refer themselves to the occupational health unit. Homeworkers are represented on the health and safety committee by a union representative.

### 4. Risk assessment:

Before an employee can work at home a manager completes a risk assessment of the home environment. They focus on the room size and arrangement of desk space. The position of the monitor, phone and plug points is also examined, as is the maintenance of wiring and equipment. If there is not a convenient circuit point or telephone line, the company will pay to have them professionally installed. Potential homeworkers are also asked if they have any health problems that could be considered a risk when working remotely, such as diabetes. The focus of risk assessment is on the equipment the company provides and the immediate room in which it is situated. The rest of the home environment is considered the homeworker's responsibility.

The health, safety and environmental manager is currently updating the risk assessment procedure to ensure that line managers visit homeworkers' homes annually to ensure that there are no changes from the initial risk assessment. Homeworkers are required to inform their line managers of any changes in their home environment that could affect the risk assessment.

A number of staff are formally trained as DSE assessors by the occupational health consultancy. The DSE assessment involves staff completing a 47-point questionnaire, which is then discussed with a DSE assessor. The DSE assessor will only visit the homeworker if a problem has been identified. Occupational health expertise is available for the DSE assessor, and a full ergonomic assessment can be carried out if required. If the set up of the homeworker's workstation changes it is necessary to carry out another DSE assessment.

### 5. Training and Information:

During their induction all customer accounts staff are introduced to health and safety guidelines through a talk and a booklet, which is reinforced by a video. A practical demonstration of how to use a desk and chair so as to reduce musculoskeletal problems is also given. The training also includes the importance of good lighting, VDU use, stress management, and fire evacuation. A

policy manual for homeworking is provided that includes the health and safety guidelines and risk assessment forms.

All health and safety information is issued through the email and intranet system. The health and safety pages on the intranet also contain information on accidents.

#### 6. Communication:

Line managers are the main point of contact for homeworkers. They are expected to make daily voice contact with homeworkers. It is emphasised to homeworkers that if there are problems, the line manager can always be contacted by phone. Whether the employee has logged onto the network or not can be monitored by line management.

A health and safety bulletin is e-mailed to all employees. Some communication is directed specifically to homeworkers, for example, an email reminding homeworkers of their representation on the health and safety committee.

#### 7. Incidents and Accidents:

The necessity to report all incidents that occur at home is emphasised to all homeworkers. Accidents are recorded on an accident form and reported to the line manager via a formal reporting procedure on the intranet.

Concern was expressed by the health, safety and environmental manager that homeworkers have reported no accidents so far, and that there was a potential for under reporting. Confusion as to who is responsible for incidents in the home, due to a blurring of the boundaries between home and work was felt to be a cause of possible under reporting of accidents. The health, safety and environmental manager explained,

‘Say at the office if coffee is spilt over someone, then at the very least I would fill in a hazard report, if not an accident report form. But at home if someone makes a cup of coffee and spills it over them, is it their fault and responsibility or is it ours?’

One homeworker explained her reluctance to report minor incidents that occur at home as the home environment reinforced a sense of personal responsibility.

‘If you are in your home environment you would have to ensure that it’s a safe place that’s your responsibility... I would appreciate that if I fell over in my own home then that’s my responsibility.’

#### 8. Health Problems:

Several potential health problems were identified for homeworkers. A number of musculoskeletal problems have been reported, particularly upper limb disorders. One employee has been receiving physiotherapy after being referred to a GP.

The company is very conscious that the supportive social aspects of work disappear when people work from home. Homeworkers are spread across locations quite far from each other, which makes the opportunities for social interaction less likely. It is compulsory for homeworkers to come into the office once a week. Here they are encouraged to take part in refresher training and meet other members of their team to reinforce the social supportive aspects of work.

Stress is not a reported problem for homeworkers. However it was felt that there was a potential for small issues to escalate in a way that would not happen in the office environment.

## 9. Difficulties:

It was felt that homeworkers had greater potential to deviate from DSE guidelines than office-based workers, as their behaviour could not be informally monitored at home. Homeworkers are encouraged to follow the same procedures at home as they are expected to follow in the office environment. It is felt that the advice to homeworkers needs to be emphasised more in comparison to office based workers, as the home environment does not reinforce safe behaviour in the same way as the office environment.

It was suggested that there should be a closer monitoring of changes to the homeworker's workstation. The need for formal monitoring processes can make excessive demands on company resources and have an impact on the health and safety services and equipment provided for homeworkers. Initially the company provided fire extinguishers to homeworkers, but these were removed due to the demand on resources to provide training, testing, and maintenance of the fire extinguishers.

The health, safety and environment manager felt that the structure and formalisation of the health and safety management procedures was contingent upon the numbers of homeworkers.

'I think number is critical too. We have 20 teleworkers who can be managed mostly from the office with the occasional visit. At one time we were planning 100 homeworkers and if we had gone to that I would have expected a full time manager going round the individual homes.'

It was felt that there was a grey area where the company's responsibility for health and safety and that of the homeworker's overlapped, especially regarding the company's electrical equipment and the homeworker's electrical system. This issue became apparent through the issue of portable appliance testing. Although the equipment that was supplied was seen as the responsibility of the company, the health, safety and environment manager had been asked,

'Where does the company's wiring end, and the homeworker's begin?'

The health, safety and environment manager explained that he had made the decision that

'If the company has supplied the lead, then that lead needs to be tested, but the socket is the homeworker's responsibility.'

Homeworkers were considered to be potentially at risk from strain injury when bringing PCs to the work premises for upgrades or repair due to unfamiliarity with correct manual handling procedures. The health, safety and environmental officer decided that the IT section should pick up and deliver computers in all instances.

## 10. Impact of health and safety measures:

The homeworkers explained that they felt privileged to be trusted to work at home, and this perception of trust was felt to generate a high level of work commitment. This commitment was expressed through the homeworkers' willingness to create a distinction between work and home. One homeworker explained that she regarded her spare room as the company's property and kept it locked when not in use. The other described how she wore the company uniform and security badge whilst working to help maintain her separate sense of work identity.

The homeworkers felt that working at home lead to increased levels of productivity compared to working in the office environment. Both said they performed better because they were less distracted and more relaxed working in their home environment.

11. Further actions:

To arrange annual home visits to check for changes in the set-up and location of homeworkers' workstations.

To perform an ergonomic appraisal of job tasks to minimise the risk of people developing stress and upper limb musculoskeletal problems.

To formally clarify the distinction between homeworker and company responsibilities for health and safety in the home.

## **5 SUMMARY OF GOOD PRACTICE IN MANAGING THE HEALTH AND SAFETY OF HOMEWORKERS**

The following section presents a summary of good practice for the health and safety management of homeworkers from across the case studies. The findings from the 12 organisations visited reveal a range of examples of good practice in managing health and safety for homeworkers, which are consistent with published HSE guidance.

The findings also reflect a fundamentally developmental process in achieving successful health and safety management for homeworkers, with participating organisations being at different stages of development. Many organisations, while having elements of good practice, also have scope for further development, particularly regarding the health and safety management of homeworkers not considered employees, but self-employed. Organisations were unaware that if a person working under their control and direction is treated as self-employed for tax and national insurance purposes, they may be treated as an employee for health and safety purposes, though each case can only be decided on its own merits by a court of law.

The summary is divided into the following categories: Sources of Health and Safety Information, Communication, Risk Assessment, Equipment Provision and Maintenance, Organisation, Information, Training, Incident Reporting, Difficulties, and Benefits of Addressing Health and Safety for Homeworkers.

### **Sources of Health and Safety Information**

- A variety of information sources can be used to aid the development of an effective health and safety management system for homeworkers. Companies have identified the following as a starting points: health and safety documentation for on-site workers; NEBOSH training; Local Authority homeworking advisors; the HSE website and literature, (including the HSE leaflet 'Homeworking: Guidance for employers and employees on health and safety'); Business Link; and Chambers of Commerce.

### **Communication**

- Effective health and safety management relies on good communication between the company and homeworkers given their isolated working arrangements. As homeworkers spend a limited time on-site, the issue of communication and providing information cannot be addressed in the same way as for employees who are on site for regular periods. In smaller firms a close working relationship between owners/managers and homeworkers may permit a more informal approach to communication.
- Although informal communication between managers and homeworkers maybe effective in smaller companies, more formalised approaches to communication are essential in larger organisations. For example, one of the companies provides homeworkers with written details of staff, their responsibilities and contact details. Some companies provided handbooks for homeworkers that contained all the information they would need, including maps of the site, copies of risk assessments and work procedures. This information was generally also reproduced on a notice board for homeworkers situated next to their entrance for the work site. One of the companies provides homeworkers with a health and safety pack in a plastic folder, which contains their risk assessment and other documented health and safety information.
- It is important that homeworkers have one or two key contacts within the organisation with whom regular communication is maintained. A number of companies had outwork co-

ordinators specifically to deal with homeworkers. The identity of the outwork co-ordinator was reinforced by using their photograph on documentation and notice boards for homeworkers, as well as promoting the use of a dedicated telephone line and voice mail by which the outwork co-ordinator could be contacted.

- It is not possible to monitor homeworkers as directly as it is on-site workers. This can have health and safety implications for homeworkers with existing medical conditions that require monitoring (such as diabetes). A number of companies use indirect forms of monitoring, such as checking whether a homeworker has logged on to the company's computer system, or line management make voice contact at least once a day with the homeworker. One organisation provided homeworkers with mobile telephones that had to be switched on during the times the homeworker was working. If the telephone was switched off it indicated that the homeworker was not working. This was found to be particularly useful for homeworkers involved in flexible working, as it allowed them to define their working times themselves, and to not have to conform to office hours.
- Some organisations include homeworkers in the distribution of on-site communications such as monthly briefings and details of social events.
- Having measures in place to allow feedback from homeworkers as a group is important. In one of the companies a homeworker acts as a representative for the group. One of the organisations encourages communication between homeworkers to serve as a support network.

### **Risk Assessment**

- It is good practice to conduct risk assessments that are specific to each homeworker's work environment, and involve the homeworker in the process of identifying potential hazards. Companies that have carried out risk assessments for individual homeworkers have addressed a range of significant hazards in the home workplace (e.g. electrical; manual handling; chemicals; ventilation; lone working/isolation) and include potential hazards that would not normally be found in a workplace such as pets.
- In assessing the risk of a task that a homeworker will undertake, it is important to consider the interaction of the task and the home environment, and not just accept the risk assessment developed for the process on the work site. There can be differences between the home and work site that mean the risk can be higher for the task when performed in the home environment. For example, ventilation can be a lot more effective in the work site than the home environment, due to such factors as higher ceilings and ventilation systems designed for the site.
- Risk assessments carried out for homeworkers have identified who else may be at risk, such as family and vulnerable persons (e.g. children, and new or expectant mothers).
- Some of the companies in the case studies produced risk assessments for each production process, along with written instructions for that process. Copies of these documents were given to the relevant homeworker. Homeworkers were able to give feedback on these instructions and risk assessments, which were incorporated into the revised versions. In completing a risk assessment for all production processes, management were able to rank the processes in terms of risk, so that the tasks that were given a higher risk rating could be assigned to more experienced homeworkers. A number of companies did this informally by ensuring that new workers were given less complex tasks, or that certain tasks were not given to homeworkers with children.

- Concern was expressed by a number of companies at not being able to monitor and supervise the safety behaviour of homeworkers to the same extent as site based workers. Some companies found it necessary to define working procedures and agree them with homeworkers from the outset. They also ensured that homeworkers understand not to deviate from the agreed work procedures, or use equipment or products unauthorised by the company. One of the companies checked that homeworkers were not using unauthorised equipment and products in the risk assessment. The signing of the risk assessment by the homemaker, after discussion with the line manager, was taken as an agreement not to deviate from the prescribed work practices or use equipment that was not authorised by the company.
- An area of the risk assessment that is often over looked is fire risk, especially reviewing the emergency procedures for when there is a fire, as well as precautions to take to avoid fire. Some of the companies provide homeworkers with smoke alarms and fire extinguishers.
- Risk assessments also identified various control measures in place to protect the homemaker and others. One of the companies actively addresses the fact that homeworkers are 'lone workers', and for security reasons all visits are conducted by prior arrangements with the homeworkers. Emphasising the importance to homeworkers of personal and home security is important, for example, checking that doors are locked. The homemaker's home address can be kept private by the use of a forwarding mailbox for work related correspondence.
- Regular reviews of risk assessments should be carried out to ensure that there have been no significant changes. One organisation provides homeworkers with a home workplace inspection form to conduct their own risk assessment on a monthly basis. Similar reviews are also scheduled to be carried out on a three monthly basis by the homemaker's team leader. Risk assessments are also reviewed if the homemaker's circumstances change, such as pregnancy or a house move.
- A number of health and safety managers had personal experience of the homemaker's production tasks, and were intermittently involved in production issues on the shop floor. They felt this involvement was beneficial as it allowed them to constantly monitor the risks associated with work practices in an informal way, as well as being aware of any changes in work practices.

### **Equipment Provision and Maintenance**

- Providing and maintaining work equipment can ensure that these are in a safe condition. Many companies go beyond providing the essential work materials and tools required to do the job. Additional equipment includes: tables; chairs; desk lamps; circuit breakers; smoke detectors; machine guards; masks; gloves; and first aid kits.
- A suitably qualified person should carry out maintenance of equipment. Companies have addressed this by either sending out on-site staff, or engaging a contract company to carry out maintenance.
- Some companies carry out annual portable appliance testing (PAT) to ensure the safety of any electrical appliance used in connection with homework activities.

## **Organisation**

- The control of homeworkers visiting the work site enables management to know who is on site and monitor homeworkers' movements, but also avoids over crowding and the resulting health and safety issues. A number of companies introduced an appointments system for homeworkers, whereby homeworkers could only visit the company within fixed time slots that had to be pre-booked. These companies also had dedicated entrances for homeworkers, and defined the areas in the work site within which the homeworkers had to remain.
- The manual handling of materials by homeworkers when delivering, or picking up work from the work site was felt to be a problematic area. To overcome this problem some of the companies delivered the work, and picked it up from the homeworker's home. Where this was not practical (due to the numbers of homeworkers involved), companies used special loading bays for homeworkers to deliver or pick up work. On-site employees were made available to assist with such deliveries, and the materials to be used were stored in quantities suitable for manual handling, and not according to the on-site storage capabilities. In general, employers should avoid the need for hazardous manual handling by homeworkers.
- Some homeworking tasks can be untidy. To alleviate this problem companies can prepare the work as much as possible, in order to minimise the clearing up that the homeworker needs to do once the task is complete.
- It is important for the well being of the homeworker that they are considered as part of the company, and not as a separate isolated worker. Including homeworkers in company social events can help address these issues, as does showing them how their production task fits into the overall production processes of the company.
- Isolation is a potential hazard that can affect the health of homeworkers. It is possible to lessen this influence by creating active social networks for the homeworkers, as well as building in 'face time' into working practices. Companies have tried to build in contact time with homeworkers by requiring that homeworkers work on site for one day a week, or that they have weekly telephone meetings with other homeworkers.
- Because of the self-discipline required to work without direct supervision, and the lack of social contact, not all people are suited to homeworking. Where possible, selection criteria for homeworkers should address such issues. Some companies only allow employees to become homeworkers once they have worked on site for a minimum time, and developed a relationship with line management that allows intuitive judgements to inform decisions about selection suitability.

## **Information**

- A number of health and safety managers were critical of general health and safety guidance, as they felt that homeworkers would not associate it with the specific work practices in which they were involved. They felt there was a potential for the advice to be ignored, as it was not seen as relevant. To overcome this potential deficiency, a number of health and safety managers rewrote generalised forms of guidance to address the specific work processes, hazards, equipment and environment of the homeworkers.
- A lot of emphasis is put on supplying information to homeworkers, but it is also important to supply information on managing homeworkers to line management. Types of information that are useful include:
  - Competencies involved

- How to manage high levels of trust and low levels of control
  - How to empower staff to work independently
  - Information to help line managers support homeworkers and avoid potential consequences of lone working such as stress or isolation
  - The setting of clear goals
- A number of companies kept records of the work processes homeworkers were involved in, the equipment they used, the risk assessments for the equipment and processes, and whether the homeworker had received the appropriate training. This record was used to ensure that homeworkers were not engaged in work tasks for which they had not been trained.

### **Training**

- Some of the homeworkers felt that they worked more productively at home due to the lack of distraction when compared to the work site. It is possible that homeworkers can work uninterrupted for longer periods than on-site workers, due to the lack of structured breaks in the home environment. To alleviate the potential problems associated with this (e.g. for repetitive tasks), during training a number of companies encouraged homeworkers to build breaks into their production tasks, and to monitor their own performance and be aware of signs of fatigue.
- The length of induction training given to homeworkers varied among the companies in the case studies. In determining the length of induction training that was required for each homeworker, one company did not set an end point. The induction training ended only when the homeworker felt secure that they had sufficient competence to undertake the work, and felt comfortable doing so at home.
- Training provided for homeworkers should address health and safety. Face to face training has addressed health and safety issues in the majority of companies. Some companies have reinforced this by providing written information. One company developed their own training video that workers can take home.

### **Incident Reporting**

- Any incidents affecting homeworkers need to be communicated to, and recorded by employers. This includes accidents and any 'near miss' occurrences. One company provides its homeworkers with a diary to record their hours worked and any problems or 'near miss' occurrence (e.g. breaking needle). These homeworkers are also provided with a dangerous occurrence/near miss report form and an accident report form.
- It is possible that because homeworkers are in an environment for which they feel responsible and in control, their perceptions of the health and safety duties of the company are lessened, as they perceive the company as having no jurisdiction over their home environment. Due to the homeworker's sense of control of this environment, minor accidents such as cuts are perceived as their responsibility, and unrelated to the company's health and safety duties. This can potentially lead to an under reporting of accidents. Companies employing homeworkers should be aware of this potential, and that accident reporting procedures cannot be dealt with in the same way for homeworkers as on-site employees. A number of the companies in the case studies reinforce the accident reporting procedures to homeworkers through e-mail bulletins and mail shots, or within induction literature. One company reports on-site accidents to homeworkers to make them more aware of the health and safety risks, and to reinforce the accident reporting procedures. Another company keeps a record of accident statistics within the health and safety pages of the intranet. Another company emphasises the need for homeworkers to report accidents, by

explaining that they will be helping the company learn from the incidents, and so will contribute to improving the health and safety standards for all employees.

- It is important that companies learn from incidents, including on-site incidents, which may be relevant to the homeworkers, and take action to prevent a reoccurrence. For example, a needle injury to an in-house machinists resulted in a written policy stating that all machinists, including homeworkers, must use needle guards at all times.

### **Difficulties**

- Assessing the risks in each homeworker's house can present problems for management, due to insufficient time and resources to complete such a task. Having homeworkers undertake monthly home inspection checks themselves is an interim solution that some companies adopt when time and resources prevent management undertaking such assessments. These risk assessments can be discussed with management, and if potential problems are identified, then this highlights a need for line management to visit the homeworker's residence.
- After an initial DSE assessment at the homeworker's residence by a DSE assessor, a self-assessment approach can be adopted for subsequent DSE assessments. The results of a self-assessment questionnaire can be discussed with line management. Only if problems are identified at this stage do competent DSE assessors visit the homeworker's residence.
- Some companies face difficulties (due to time and resources) keeping portable appliance testing (PAT) schedules up to date. Training homeworkers to undertake visual checks of their equipment is one way that companies have tried to address this shortfall. As well as stressing the need to report any faults as soon as they are noticed, and not to use the equipment until it has been repaired.
- A grey area exists for the health and safety management of homeworkers over the demarcation of health and safety responsibilities between the company and the homeworker, especially as the homeworker's property becomes the work environment. Several companies draw a plan or take a photograph of the area that is used for work, in order to demarcate the area of the property for which the company will undertake a risk assessment. Once this area, and the set up of this area have been assessed for risks, some companies insist that the homeworker agree not to change the area without informing the company. If there is a change the company will then undertake another risk assessment.
- A clear demarcation between the health and safety responsibilities of the company and the homeworker should be understood at the outset. For example, the company is responsible for the maintenance of any electrical equipment that is supplied, but not the electrical system of the homeworker's residence. It should also be emphasised to homeworkers that they are also responsible for their health and safety, and the health and safety of others who may be affected by what they do or do not do.
- There are often employees with companies who are not strictly recognised as homeworkers (in that they do not work at home for any recognised length of time), but they work at home on an infrequent or informal basis. These workers also need to be informed of the potential health and safety risks from working at home.
- Although many homeworking tasks are only intended to be undertaken by the individual homeworkers, there is a strong motivation for the homeworking tasks to become joint family or group activities. Companies should ensure that homeworkers agree to be the only

person engaged in the production task, and it might be necessary for such an agreement to be documented and signed by the employer and homeworker.

- If homeworkers are engaged in repetitive work tasks, there is a likelihood that they will also be involved in a distraction activity (such as watching television) while doing the work. Often the work will be organised in such a way as to benefit the distraction activity, rather than the job itself, e.g. sitting on the sofa to watch television while working rather than at a desk. This possibility raises the importance of companies providing homeworkers with training on correct ways of working to help avoid musculoskeletal problems, and also for homeworkers to agree not to deviate from prescribed work practices.
- A lot of homeworkers are paid on a piece rate basis, so the speed at which they can complete their work task determines their rate of payment. It is important that any personal protective equipment (PPE) is suitable for the task, and not perceived by the homeworker as slowing them down by impeding dexterity. If this is perceived to be so, then there is a likelihood that the use of the PPE will be abandoned, as the homeworker makes a decision to trade-off protection for speed. Some companies supply a range of PPE from which the homeworker can choose the type they feel is most appropriate for their work.
- Finding external health and safety expertise is an important consideration for companies once they reach the limits of their own competency. Some of the companies made use of consultancies and business advisory services. In such instances one of the companies felt that it was beneficial to insist upon a single individual within the consultancy as a point of contact. This ensured that a relationship could develop between the consultant and the company, and that the consultant could increase their knowledge of the company, and so be able to give advice that was more targeted and relevant to the company's needs.

#### **Benefits of Addressing Health and Safety for Homeworkers**

- Companies employing homeworkers felt that addressing the health, safety and welfare of homeworkers contributes to a higher level of commitment and makes them feel valued. It also helps to ensure safe working practices and avoid the potential costs of interruptions to work output from ill-health or injury, thereby offering a business benefit.
- Many homeworkers report that working at home allows them the flexibility to work around ill-health, while this is clearly a benefit to the company (in terms of increased productivity and decreased sickness rates), employers should not exploit this flexibility and indirectly pressurise homeworkers to work through ill-health.

## 6 APPENDICES

### APPENDIX 1: INTERVIEW QUESTIONS

- Information on organisation (company /homeworkers)
- Activities
- Equipment provided (how is it maintained)
- How homeworker got started (recruitment, risk assessment, equipment, training...)
- Pros & Cons of homework (company/homeworkers)
- Where has the company got their health and safety information from
- Health and Safety Policy
- Risk Assessment – who is involved
- COSHH/DSE Assessment – who does it, how often
- H&S representatives/Committees/Communication
- Hazards
  - Physical (electrical, musculoskeletal, eyes, static)
  - Psychosocial (isolation, stress, hours)
  - Chemical
- Who affected (vulnerable persons, children, new/expectant mothers)
- Controls
  - Equipment
  - Training
  - Information (insurance)
  - PPE
  - First Aid
  - Accident reporting
  - Occupational Health (provision, awareness, access)
- Recording/Communicating Risk Assessment
- Auditing/Monitoring
- Reviewing risk assessment
- Difficulties encountered in addressing health and safety for homeworkers (how these have been addressed/overcome)
- Motivation/reasons for addressing health and safety for homeworkers
- Impact/Benefits

## **APPENDIX 2: EXAMPLES OF HEALTH AND SAFETY REGULATIONS RELEVANT TO HOMEWORKING**

### **Health and Safety at Work, etc. Act (HSWA) 1974**

Under the HSWA (1974) employers have the same obligations to protect the health, safety and welfare of homeworkers who are employees, as they do for employees who are based on-site. This includes provision of such information, instruction, training and supervision as is necessary to ensure the homeworkers' health and safety. Homeworkers must also take reasonable care of themselves and others who may be affected by their work. Employers must also ensure that so far as is reasonably practicable, their work activities do not pose a health and safety risk for persons not in their employment. This includes self-employed homeworkers. Employers with five or more employees should have a written health and safety policy. The health and safety policy should outline how they manage health and safety in their organisation, and outline the systems and procedures that are in place for ensuring employees' health and safety, for example, who does what; when and how.

Under the HSWA (1974) safety representatives appointed by recognised trade unions can represent homeworkers in consultation with employers about health and safety matters.

#### *Relevant Guidance:*

- STATING YOUR BUSINESS: Guidance on preparing a health and safety policy document for small firms. INDG324, HSE Books 2000, ISBN 717617998.
- An introduction to health and safety: health and safety in small firms INDG259 (rev1) HSE Books 2003.

### **The Management of Health and Safety at Work Regulations 1999**

These regulations require employers (and self employed) to carry out a risk assessment of the work carried out by homeworkers. An employer also has to assess 'the risks to the health and safety of persons not in his employment arising out of or in connection with the conduct by him of his undertaking'. Therefore, even if homeworkers are not actually an employee, there is a duty for the person providing the work to assess and minimise the risks. The regulations also oblige employers to provide 'comprehensive information' on the risk to employees' health and safety, and 'adequate training'.

The purpose of carrying out a risk assessment is to identify hazards relating to the homeworkers' work activities, and to decide whether enough steps have been taken to prevent harm to the homeworker, or to anyone else who may be affected by their work. Attention must be paid to vulnerable persons including children and new or expectant mothers. Five different stages are involved in a risk assessment:

1. Identify potential hazards;
2. Decide who might be harmed and how;
3. Assess the risks and take action to remove or reduce them as far as possible;
4. Record the findings (where there are 5 or more employees, including homeworkers, companies are required by law to record the significant findings from a risk assessment and to communicate these findings to those affected);
5. Check the risks from time to time and take further action if necessary.

*Relevant Guidance:*

- Management of Health and Safety at Work Regulations 1999, Approved Code of Practice and Guidance. HSE Books 2000, L21, ISBN 717624889.
- "Five Steps to Risk Assessment". HSE Books 1998, INDG163, ISBN 717609049.
- New and Expectant Mothers at Work - A guide for employers HSG122 (2<sup>nd</sup> ed) HSE Books 2002 ISBN 717625834.

**The Control of Substances Hazardous to Health Regulations 2002 (COSHH)**

Using chemicals or other hazardous substances at work can put people's health at risk. Hazardous substances include:

- Substances used directly in work activities (e.g. adhesives, paints, cleaning agents)
- Substances generated during work activities (e.g. fumes from soldering and welding)
- Naturally occurring substances (e.g. grain dust)
- Biological agents such as bacteria and other micro-organisms

The law requires employers to control exposure to hazardous substances to prevent ill health. They have to protect both employees and others who may be exposed, by complying with the Control of Substances Hazardous to Health Regulations 2002 (COSHH).

COSHH is a management tool which sets eight basic measures that employers, and sometimes employees must take. The eight steps that are needed to comply with COSHH are:

1. Assess the risks to health arising from hazardous substances used in or created by your workplace activities.
2. Decide what precautions are needed. You must not carry out work which could expose your employees to hazardous substances without first considering the risks and the necessary precautions, and what else you need to do to comply with COSHH.
3. Prevent or adequately control exposure. You must prevent your employees being exposed to hazardous substances. Where preventing exposure is not reasonably practicable, then you must adequately control it.
4. Ensure that control measures are used and maintained properly and that safety procedures are followed.
5. Monitor the exposure of employees to hazardous substances, if necessary.
6. Carry out proper health surveillance where your assessment has shown this is necessary or where COSHH sets specific requirements.
7. Prepare plans and procedures to deal with accidents, incidents and emergencies involving hazardous substances, where necessary.
8. Ensure employees are properly informed, trained and supervised.

*Relevant Guidance:*

- The Control of Substances Hazardous to Health Regulations 2002 SI 2002/2677. Stationery Office 2002 ISBN 0 11 042919 2.

- Control of substances hazardous to health. Control of Substances Hazardous to Health Regulations 2002. Approved Code of Practice and Guidance L5. HSE Books 2002 ISBN 0 7176 2534 6.
- Health surveillance under COSHH: Guidance for employers. HSE Books 1990 ISBN 0 7176 04918 (publication currently under revision).
- COSHH essentials: easy steps to control chemicals. Control of Substances Hazardous to Health Regulations HSG 193. HSE Books 1999 ISBN 0 7176 2421 8. (an electronic version is available at [www.coshh-essentials.org.uk](http://www.coshh-essentials.org.uk)).

### **Manual Handling Operations Regulations 1992**

Manual handling is transporting or supporting loads by hand or using bodily force. The employer should consider the risks from manual handling to the health and safety of employees. The employer should:

- Avoid the need for hazardous manual handling, as far as reasonably practicable;
- Assess the risks of injury from any hazardous manual handling that cannot be avoided;
- Reduce the risks of injury from hazardous manual handling, as far as reasonably practicable by providing training and/or lifting aids.

#### *Relevant Guidance:*

- Manual handling. Manual Handling Operations Regulations 1992. Guidance on regulations L23 (Second edition) HSE Books 1998 ISBN 0 7176 2415 3.
- Aching arms (or RSI) in small businesses: Is ill health due to upper limb disorders a problem in your work place? INDG171 (rev1) Free (available in packs of 15 ISBN 0 7176 2600 8 £5.00).
- Upper limb disorders in the workplace HSG60. ISBN 0 7176 1978 8 £9.50.
- Getting to grips with manual handling – a short guide for employers INDG143(rev1) (available in packs of 15 ISBN 0 7176 1754 8 £5.00).

### **The Noise at Work Regulations 1989**

An employer has a legal duty under the Noise Regulations to reduce the risk of damage to employees' hearing. If any employees are likely to be exposed to such risk, employers must arrange for a competent person to assess the actual level of noise exposure.

#### *Relevant Guidance:*

- Reducing noise at work. Guidance on the Noise at Work Regulations 1989. L108, ISBN 0-7176-1511-1 HSE Books. This book gives guidance on legal duties, specifically under the Noise at Work Regulations 1989, and offers employers advice on introducing control measures, selecting ear protection, and choosing a competent person to carry out a noise assessment. It also gives advice to the competent person on what is required of a noise assessment.
- Sound solutions: Techniques to reduce noise at work HSG138 HSE Books 1995 ISBN 0 7176 1705 X.

### **Health and Safety (Display Screen Equipment) Regulations 1992 (as amended in 2002)**

Using a computer or other kinds of display screen equipment (visual display units) can give rise to back problems, repetitive strain injury, or other musculoskeletal disorders. The regulations require employers to minimise the risks in VDU work by ensuring that workplaces and jobs are well designed. These regulations apply regardless of where the work is carried out. Employers should assess work stations, looking for such items as:

- o Clear screens which are easy to read, with no flicker and free from glare/reflections and dust

- The brightness/contrast of the screens is adjusted correctly to prevent eye strain;
- Suitable lighting
- Suitable positioning of keyboard; can the chair be adjusted to the right height?; is the VDU at the right angle to prevent awkward movement to use?; is there enough space on the desk to allow free movement?
- Homeworkers take regular breaks
- VDU users can request and eye examination and test from their employer.

*Relevant Guidance:*

- Work with display screen equipment. Health and Safety (Display Screen Equipment) Regulations 1992 as amended by the Health and Safety (Miscellaneous Amendments) regulations 2002. Guidance on regulations L26 (Second edition) HSE Books 2003 ISBN 0 7176 2582 6.
- The law on VDUs. An easy guide: making sure your office complies with the Health and Safety (Display Screen Equipment) Regulations 1992 (as amended in 2002) HSG90. ISBN 0 7176 2602 4.
- Working with VDUs INDG36(rev1). ISBN 0 7176 1504 9.

**Provision and Use of Work Equipment Regulations 1998**

The regulations require risks to people's health and safety, from equipment that they use at work, to be prevented or controlled. Work equipment covers an enormous range, spanning process machinery, machine tools, office machines, lifting equipment, hand tools, ladders and pressure washers. Important points include:

- Selecting the right equipment for the job;
- Making sure equipment is safe to use and keeping it safe through regular maintenance, inspection and, if appropriate thorough examination;
- Any testing of equipment or training should be carried out by persons who are properly trained themselves;
- Training employees to use equipment safely;
- Following manufacturers' or suppliers' instructions.

*Relevant Guidance:*

- Simple guide to the Provision and Use of Work Equipment Regulations 1998 INDG291. HSE Books 1999. ISBN 0 7176 2429 3.
- Safe use of work equipment. Provision and Use of Work Equipment Regulations 1998 INDG290. ISBN 0 7176 2430 7.
- Using work equipment safely INDG229(rev1). ISBN 0 7176 2389 0.

**Personal Protective Equipment at Work Regulations 1992**

The main requirement of the regulations is that personal protective equipment (PPE) is to be supplied free of charge, and used at work wherever there are risks to health and safety that cannot be adequately controlled in other ways.

*Relevant Guidance:*

- Personal Protective Equipment at Work regulations 1992. Guidance on Regulations L25 HSE Books 1992 ISBN 0 7176 0415 2.

**The Health and Safety (First Aid) Regulations 1981**

Employers are required to supply adequate first aid provision for their employees, depending on the nature of the work, risks and hazards.

*Relevant Guidance:*

- Basic advice on first aid at work leaflet INDG347 HSE Books 2002 ISBN 717622614.

**The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) 1995**

Employers must record and report certain occupational injuries, diseases and dangerous events to the enforcing authority. They should take steps to ensure that homeworkers report any incidents.

*Relevant Guidance:*

- A guide to the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 L73 (2<sup>nd</sup> ed) HSE Books 1999 ISBN 717624315.

**The Safety Representatives and Safety Committees Regulations 1977**

If an employer recognises a trade union and that trade union has appointed, or is about to appoint, safety representatives under the Regulations, then the employer must consult those safety representatives on matters affecting the group or groups of employees they represent. Members of these groups of employees may include people who are not members of that trade union.

*Relevant Guidance:*

- Safety representatives and safety committees L87 (Third edition) HSE Books 1996 ISBN 0 7176 1220 1.

**The Health and Safety (Consultation with Employees) Regulations 1996**

Any employees not in groups covered under trade union safety representatives must be consulted by their employers under these Regulations. The employer can choose to consult them directly or through elected representatives.

*Relevant Guidance:*

- A Guide to the Health and Safety (Consultation with Employees) Regulations 1996. Guidance on regulations L95 HSE Books 1996 ISBN 0 7176 1234 1.

**Electricity at Work Regulations 1989**

The Regulations require employers to maintain the electrical equipment they provide, but not the domestic electrical system. Employers must ensure that the equipment is in good working order.

*Relevant Guidance:*

- Memorandum of guidance on the Electricity at Work Regulations 1989 HSR25 HSE Books 1989. ISBN 0 7176 1602 9.
- Maintaining portable and transportable electrical equipment HSG107 HSE Books 1994 ISBN 0 7176 0715 1.

**The Workplace (Health, Safety and Welfare) Regulations 1992**

The regulations cover a wide range of basic health, safety and welfare issues. They aim to ensure that workplaces meet the health, safety and welfare needs of all members of a workforce, including people with disabilities. These regulations do not apply to domestic premises, but are relevant to homeworkers when they visit the employer's work premises.

*Relevant Guidance:*

- Workplace health, safety and welfare. Workplace (Health, Safety and Welfare) Regulations 1992. Approved Code of Practice L24 HSE Books 1992 ISBN 0 7176 0413 6.
- Workplace health, safety and welfare: A short guide for managers leaflet INDG244 HSE Books 1997 ISBN 0 7176 1328 3.

### APPENDIX 3: EXAMPLE TEMPLATE FOR RISK ASSESSMENT IN SEWING/TEXTILES

<b>Hazard</b>	<b>Who may be affected</b>	<b>Consequences/How affected</b>	<b>Examples of control measures</b>	<b>Relevant Regulations:</b>
<b>Sewing machines</b>	Homeworker; family members; visitors; consider vulnerable persons (e.g. young children).	Needles injuries; Trapped fingers; Upper limb strain from seating position, repetitive movement and/or vibration; Hearing problems from excessive noise.	Machines provided are suitable for their intended purpose; Machines are checked regularly and kept in a condition that does not cause harm; Needle guards are provided; Homeworkers should take regular breaks.	The Provision and Use of Work Equipment (PUWER) Regulations 1998.  The Personal Protective Equipment Regulations 1992.
<b>Electricity</b>	Homeworker; family members; visitors; consider vulnerable persons (e.g. young children).	Electric shock or fire.	Plugs are correctly wired and maintained; Leads, wires and cables are appropriately covered and not damaged; Plugs, leads, wires and cables are checked regularly and kept in a condition that does not cause harm.	Electricity at work Regulations 1989.
<b>Manual handling</b>	Homeworker; family members; visitors; consider vulnerable persons (e.g. young children).	Musculoskeletal strain or injury, particularly to the back.	Avoid heavy, bulky loads or materials; When lifting is necessary, homeworkers must be informed, instructed and trained in good techniques to help reduce the risks; Provide lifting aids (e.g. trolleys).	The Manual Handling Operations Regulations 1992.
<b>Out-workers visiting work site</b>	Homeworkers, and site-based employees.	Physical injury.	Operation of appointments system to limit numbers of homeworkers on site at one time; Clear markings and demarcation of areas within which homeworkers must stay on site.	Workplace (Health, Safety and Welfare) Regulations 1992.
<b>Slips, Trips and Falls</b>	Homeworker; family members; visitors; consider vulnerable persons (e.g. young children).	Physical Injury.	Keep work areas tidy and clear of obstructions or objects lying around that may cause person to trip; Try to avoid changes of level, or if not possible, add high visible reflective tread to edge of step; Ensure adequate lighting.	The Management of Health and Safety at Work Regulations 1999 (HSE, 2000 a).

<b>Chemically treated materials</b>	Homeworker; family members; visitors; consider vulnerable persons (e.g. young children).	Possible breathing difficulties and/or skin irritation.	<p>Avoid use of treated materials;</p> <p>Replace hazardous materials with a less hazardous ones;</p> <p>Ensure adequate ventilation;</p> <p>Supply personal protective equipment (PPE) such as masks, gloves or overalls;</p> <p>Inform/train homeworkers about the materials, risks and precautions;</p> <p>Exposure monitoring or health surveillance as required by COSHH 1999 regulations.</p>	The Control of Substances Hazardous to Health (COSHH) Regulations 1999.
<b>Isolation</b>	Homeworker	Stress and depression.	<p>Regular face to face contact between company representatives and homeworker;</p> <p>Same information and support for homeworkers as on-site workers, including information on social events;</p> <p>Facilitate communication with other homeworkers and on-site workers;</p> <p>Homeworkers should take regular breaks.</p>	The Management of Health and Safety at Work Regulations 1999 (HSE, 2000 a).

**APPENDIX 4: EXAMPLE TEMPLATE FOR RISK ASSESSMENT IN PACKING/ASSEMBLY/FINISHING**

<b>Hazard</b>	<b>Who may be affected</b>	<b>Consequences/How affected</b>	<b>Examples of control measures</b>	<b>Relevant Regulations:</b>
<b>Work Equipment</b>	Homeworker; family members; visitors; consider vulnerable persons (e.g. young children).	Cuts, burns, trapping, entanglement, electrical risks, noise and vibration, dust and fume, and musculoskeletal problems.	Ensure work equipment is safe for use, maintained in a safe condition; Ensure a suitable standard of lighting is provided; Ensure that work equipment is used only by people who have received adequate information, instruction and training.	The Provision and Use of Work Equipment (PUWER) Regulations 1998.  The Personal Protective Equipment Regulations 1992.
<b>Hazardous Substances (adhesives and solvents)</b>	Homeworker; family members; visitors; consider vulnerable persons (e.g. young children).	Asthma, dermatitis, irritation of eyes, lungs and skin, headache, nausea, dizziness and light-headedness.	Eliminate the substance or procedure wherever possible, or substitute it with a safer alternative; Minimise the duration of the procedure; Ensure adequate ventilation; Supply personal protective equipment (PPE) such as masks, gloves or overalls; Do not eat or smoke when using hazardous substances; Inform homeworkers of the risk from hazardous substances; Exposure monitoring or health surveillance as required by COSHH 1999 regulations.	The Control of Substances Hazardous to Health (COSHH) Regulations 1999.
<b>Out-workers visiting work site</b>	Homeworkers, and site-based employees.	Physical injury.	Operation of appointments system to limit numbers of homeworkers on site at one time; Clear markings and demarcation of areas within which homeworkers must stay on site.	Workplace (Health, Safety and Welfare) Regulations 1992.
<b>Electricity</b>	Homeworker; family members; visitors; consider vulnerable persons (e.g. young children).	Electric shock or fire.	Plugs are correctly wired and maintained; Plugs, leads, wires and cables are checked regularly and kept in a condition that does not cause harm.	Electricity at Work Regulations 1989.

<b>Manual handling of materials.</b>	Homeworker; family members; visitors; consider vulnerable persons (e.g. young children).	Musculoskeletal strain or injury, particularly to the back.	Avoid heavy, bulky loads or materials; When lifting is necessary, homeworkers must be informed, instructed and trained in good techniques to help reduce the risks.	The Manual Handling Operations Regulations 1992.
<b>Slips, Trips and Falls.</b>	Homeworker; family members; visitors; consider vulnerable persons (e.g. young children).	Physical injury.	Keep work areas tidy and clear of obstructions or objects lying around that may cause person to trip. Clean spills up immediately; Ensure adequate lighting.	The Management of Health and Safety at Work Regulations 1999 (HSE, 2000 a).
<b>Isolation</b>	Homeworker	Stress and depression.	Regular face to face contact between company representatives and homeworker; Same information and support for homeworkers as on-site workers, including information on social events; Facilitate communication with other homeworkers and on-site workers; Homeworkers should take regular breaks.	The Management of Health and Safety at Work Regulations 1999 (HSE, 2000 a).

**APPENDIX 5: EXAMPLE TEMPLATE FOR RISK ASSESSMENT IN ELECTRICAL AND ELECTRONICS**

<b>Hazard</b>	<b>Who may be affected</b>	<b>Consequences/How affected</b>	<b>Examples of control measures</b>	<b>Relevant Regulations:</b>
<b>Soldering iron, solder pot.</b>	Homeworker; family members; visitors; consider vulnerable persons (e.g. young children).	Burns, repetitive strain injury, and fire.	<p>Ensure soldering iron is safe for use, and maintained in a safe condition;</p> <p>Ensure a suitable standard of lighting is provided;</p> <p>Ensure soldering iron is switched off when unattended;</p> <p>Ensure only people who have received adequate information, instruction and training use soldering iron.</p>	The Provision and Use of Work Equipment (PUWER) 1998.
<b>Chemical substances e.g. flux and solder.</b>	Homeworker; family members; visitors; consider vulnerable persons (e.g. young children).	Possible breathing difficulties, occupational asthma (or exacerbation of existing asthmatic conditions), skin irritation, dermatitis, irritation to eyes and upper respiratory tract.	<p>Replace hazardous materials with a less hazardous ones;</p> <p>Follow advice from COSHH guidance sheets (<a href="http://www.coshh-essentials.org.uk">www.coshh-essentials.org.uk</a>);</p> <p>Ensure adequate ventilation that is properly maintained;</p> <p>Inform/train homeworkers about the materials, any risks and precautions;</p> <p>Exposure monitoring or health surveillance as required by COSHH 1999 regulations;</p> <p>Supply personal protective equipment (PPE) such as masks, gloves or overalls when prevention of exposure or adequate control is not reasonably practicable.</p>	The Control of Substances Hazardous to Health (COSHH) Regulations 1999.
<b>Electricity</b>	Homeworker; family members; visitors; consider vulnerable persons (e.g. young children).	Electric shock and/or fire.	<p>Plugs are correctly wired and maintained;</p> <p>Leads, wires and cables are appropriately covered and not damaged;</p> <p>Plugs, leads, wires and cables are checked regularly and kept in a condition that does not cause harm;</p> <p>Circuit breakers are installed;</p>	Electricity at Work Regulations 1989.

			Smoke detectors are provided.	
<b>Manual handling</b>	Homeworker; family members; visitors; consider vulnerable persons (e.g. young children).	Musculoskeletal strain or injury, particularly to the back.	Avoid heavy, bulky loads or materials; Avoid steps and steep ramps; When lifting is necessary, homeworkers must be informed, instructed and trained in good techniques to help reduce the risks.	The Manual Handling Operations Regulations 1992.
<b>Work equipment.</b>	Homeworker; family members; visitors; consider vulnerable persons (e.g. young children).	Cuts, burns, trapping, entanglement, electrical risks, noise and vibration, dust and fume, and musculoskeletal problems.	Ensure work equipment is safe for use, maintained in a safe condition; Ensure a suitable standard of lighting is provided; Ensure that work equipment is used only by people who have received adequate information, instruction and training.	The Provision of Work Equipment (PUWER) regulations 1998.
<b>Out-workers visiting work site</b>	Homeworkers, and site-based employees.	Physical injury.	Operation of appointments system to limit numbers of homeworkers on site at one time; Clear markings and demarcation of areas within which homeworkers must stay on site.	Workplace (Health, Safety and Welfare) Regulations 1992.
<b>Slips, Trips and Falls</b>	Homeworker; family members; visitors; consider vulnerable persons (e.g. new or expectant mothers, young children).	Physical injury.	Keep work areas tidy and clear of obstructions or objects lying around that may cause person to trip. Clean spills up immediately; Arrange furniture in order to avoid trailing wires; Ensure mats are securely fixed and do not have curling edges; Try to avoid changes of level; Ensure suitable footwear; Ensure adequate lighting.	The Management of Health and Safety at Work Regulations 1999 (HSE, 2000 a).
<b>Isolation</b>	Homeworker.	Stress and depression.	Regular face to face contact between company representatives and homeworker; Same information and support for homeworkers as on-site workers, including information on social events;	The Management of Health and Safety at Work Regulations 1999 (HSE, 2000 a).

**APPENDIX 6: EXAMPLE TEMPLATE FOR RISK ASSESSMENT IN BUSINESS SERVICES/WORKING WITH COMPUTERS**

<b>Hazard</b>	<b>Who may be affected</b>	<b>Consequences/How affected</b>	<b>Examples of control measures</b>	<b>Relevant Regulations:</b>
<b>Display Screen Equipment</b>	Homeworker; family members; visitors; consider vulnerable persons (e.g. young children).	Upper limb strain from seating position or repetitive movement.	Machines provided are suitable for their intended purpose; Use and maintenance of machines is restricted to designated persons who have received adequate training; Machines are checked regularly and kept in a condition that does not cause harm; Provision of suitable seating; Homeworkers should take regular breaks.	The Health and Safety (DSE) Regulations 1992.
<b>Work equipment</b>	Homeworker; family members; visitors; consider vulnerable persons (e.g. young children).	Trapping, entanglement, electrical risks, and musculoskeletal problems.	Ensure work equipment is suitable for intended use; Ensure work equipment is safe for use, and maintained in a safe condition; Ensure a suitable standard of lighting is provided; Ensure suitable emergency stop controls are in place; Ensure that work equipment is used only by people who have received adequate information, instruction and training.	The Provision and Use of Work Equipment (PUWER) Regulations 1998.
<b>Electricity</b>	Homeworker; family members; visitors; consider vulnerable persons (e.g. young children).	Electric shock or fire.	Plugs are correctly wired and maintained; Plugs, leads, wires and cables are checked regularly and kept in a condition that does not cause harm.	Electricity at Work Regulations 1989.
<b>Manual Handling of office</b>	Homeworker; family members; visitors; consider vulnerable persons (e.g. new or expectant mothers).	Musculoskeletal strain or injury, particularly to the back.	Avoid heavy, bulky loads or materials; Avoid steps and steep ramps; When lifting is necessary, homeworkers must be	The Manual Handling Operations Regulations 1992.

<b>equipment</b>	or expectant mothers).		informed, instructed and trained in good techniques to help reduce the risks.	
<b>Slips, Trips and Falls</b>	Homeworker; family members; visitors; consider vulnerable persons (e.g. new or expectant mothers, young children).	Physical injury.	Keep work areas tidy and clear of obstructions or objects lying around that may cause person to trip. Clean spills up immediately; Arrange furniture in order to avoid trailing wires; Ensure mats are securely fixed and do not have curling edges; Try to avoid changes of level; Ensure suitable footwear; Ensure adequate lighting.	The Management of Health and Safety at Work Regulations 1999 (HSE, 2000 a).
<b>Isolation</b>	Homeworker.	Stress and depression.	Regular face to face contact between company representatives and homeworker; Same information and support for homeworkers as on-site workers, including information on social events; Facilitate communication with other homeworkers and on-site workers; Homeworkers should take regular breaks.	The Management of Health and Safety at Work Regulations 1999 (HSE, 2000 a).

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