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**ANNUAL SAFETY REPRESENTATIVES FORUM
27TH-28TH APRIL 1992
HILTON NATIONAL, WARWICK**

**DISPLAY SCREEN
EQUIPMENT DIRECTIVE**

THE COUNCIL DIRECTIVE ON THE MINIMUM SAFETY AND HEALTH REQUIREMENTS OF WORK WITH DISPLAY SCREEN EQUIPMENT - DIRECTIVE 87/391/EEC

INTRODUCTION

The Member States of the European Community must comply with EC Directives within the specified timeframe. The Directives impose legal obligations upon member states and are effectively an addition to British legislation.

The display screen directive places obligations on employers to review their existing work practices with respect to display screen work.

NB *Any workstations installed after 31st December 1992 must comply with the Directive and any workstations already in use must comply by 31st December 1996.*

THE FOLLOWING SUMMARISES THE KEY POINTS REGARDING EMPLOYER'S OBLIGATIONS:-

Analysis of Workstations

Employers shall be obliged to perform an analysis of workstations in order to evaluate the health and safety aspects, particularly with respect to eyesight, physical problems and associated stress.

Employers must take appropriate steps to ensure that workstations comply with the minimum requirements laid down in the Directive.

Training

Employees shall receive information on all aspects of safety and health relating to their workstation. Employees will also receive training in the use of their VDU before commencing this type of work and whenever the organisation of the workstation is substantially modified.

Daily Work Routine

Employers must plan employees activities in such a way that daily work on a screen is periodically interrupted by breaks or changes in activity.

Protection of Eyes and Eyesight

Employees shall be entitled to an appropriate eye and eyesight test

- before commencing screen work
- at regular intervals
- if during use they experience visual difficulties

Provision of Equipment

All furniture must comply with the minimum requirements and be adjustable where possible, as laid down in the Directive within the specified time frame.

Within the NRA an habitual 'user' is defined as an individual who uses a visual display unit at work for more than one hour continuously on a regular basis.

The purpose of this directive is to reduce the risks commonly associated with VDU use. The principal risks associated with display screen equipment are of physical (musculoskeletal) problems, visual fatigue and stress. They are not unique to display screen work nor an inevitable consequence of it. As in other kinds of work, the effects usually result from poor work organisation and job design.

By taking a few simple steps it is possible to minimise or eliminate the above effects:-

1. Sit right back in your chair - to support your back.
2. Adjust your seat height - until your forearms are parallel.
3. Align your hands with your forearms - try to work with your wrists straight.
4. Use a footrest if your seat is too high.
5. Organise your workstation - to help you sit upright.
6. Adjust your display height - minimise head and neck movement.

and finally

7. Adjust your screen - try to avoid reflections.

(See Appendix I)

The EC Directive considers the following aspects of a VDU Workstation.

YOUR VDU – PROPER USE

SCREEN



KEYBOARD



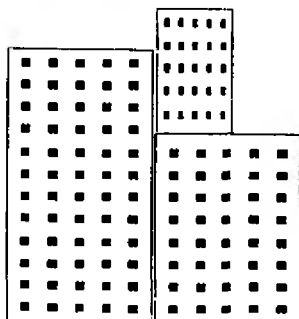
WORKSTATION/DESK



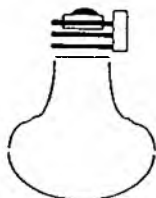
CHAIR



ENVIRONMENT



LIGHT



HEAT



If the following points are considered it is possible to reduce any adverse effects of VDU use:-

VDU

SCREEN

- clean regularly
- remove source of glare/reflections
- position correctly
- arrange servicing of the machine

KEYBOARD

- place keyboard correctly so as to allow room to work keeping wrists straight
- check the symbols are clear
- clean regularly

FURNITURE

DESK

- ensure there is adequate space
- check the desk is at a comfortable height
- remove reflections on surface
- ask for document holder and non-reflective mat (if needed)

CHAIR

- adjust height, back and tilt
- ensure that feet touch the floor
- ask for footrest (if needed)

ENVIRONMENT

LIGHTING

- ensure desk is positioned at right angles to the window if possible or use blinds to minimise glare and reflections on the screen
- report failed or flickering bulbs/tubes
- use task lights to support low lighting if working with documents

HEAT

- ensure that room temperature and humidity are comfortable
- report discomforts to manager or supervisor

NOISE

- ensure noise levels (eg from printers) are minimised

When analysing a workstation the characteristics can be rated by following the system below:-

CHARACTERISTICS OF A WELL DESIGNED VDU WORKSTATION

CHARACTERISTICS:

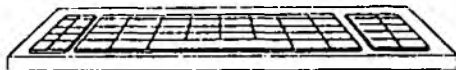
Score:
1 = Good
5 = Poor

THE SCREEN



- SWIVEL AND TILT FACILITY
- FREE FROM GLARE AND REFLECTION
- FREE FROM FLICKERING
- BRIGHTNESS/CONTRAST CONTROL
- CLEAN

THE KEYBOARD



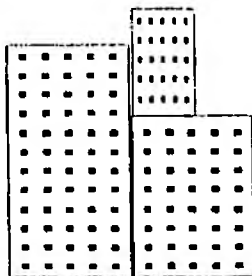
- SEPARATE FROM SCREEN
- TILT FACILITY
- ADEQUATE SPACE AROUND TO SUPPORT FOREARMS
- CLEAR, CLEAN SYMBOLS
- DOCUMENT HOLDER IF NEEDED

THE CHAIR



- HEIGHT, BACK HEIGHT AND TILT ADJUSTABLE
- STABLE
- FOOTREST AVAILABLE
- CONTROLS EASY AND SAFE TO USE

ENVIRONMENT



- SUITABLE LIGHTING - LEVEL AND LOCATION
- SECURE CABLES AND WIRES
- ADEQUATE HEATING/HUMIDITY/ VENTILATION
- NO EXCESS GLARE FROM WINDOWS
- NOISE MINIMISED
- POSITION OF WORKSTATION IN RELATION TO WINDOWS
- BLINDS OR CURTAINS TO MINIMISE REFLECTION AND GLARE ON SCREEN

SUMMARY

The EC Directive lays down minimum requirements for work with display screen equipment. It obliges employers to assess any risks associated with VDUs and to implement any necessary improvements. The legislation is designed to protect the health of the 'users'.

"Self checklist"

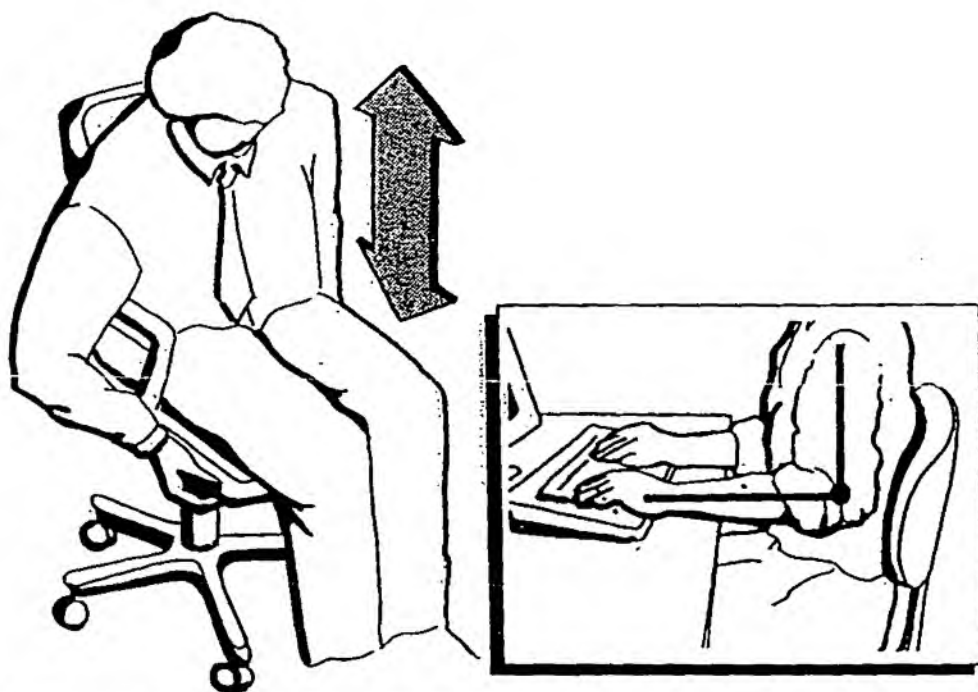
In your role as Safety Representatives your colleagues may turn to you for advice if they are experiencing discomfort which is related to VDU work. The "Self Checklist" (See Appendix II) addresses the areas which should be considered and the scoring system will help to prioritise the areas requiring attention.

The table "Diagnosing the effects of Visual Display Equipment on the User" will also help identify problem areas (See Appendix III). All problems should be referred to the supervisor.

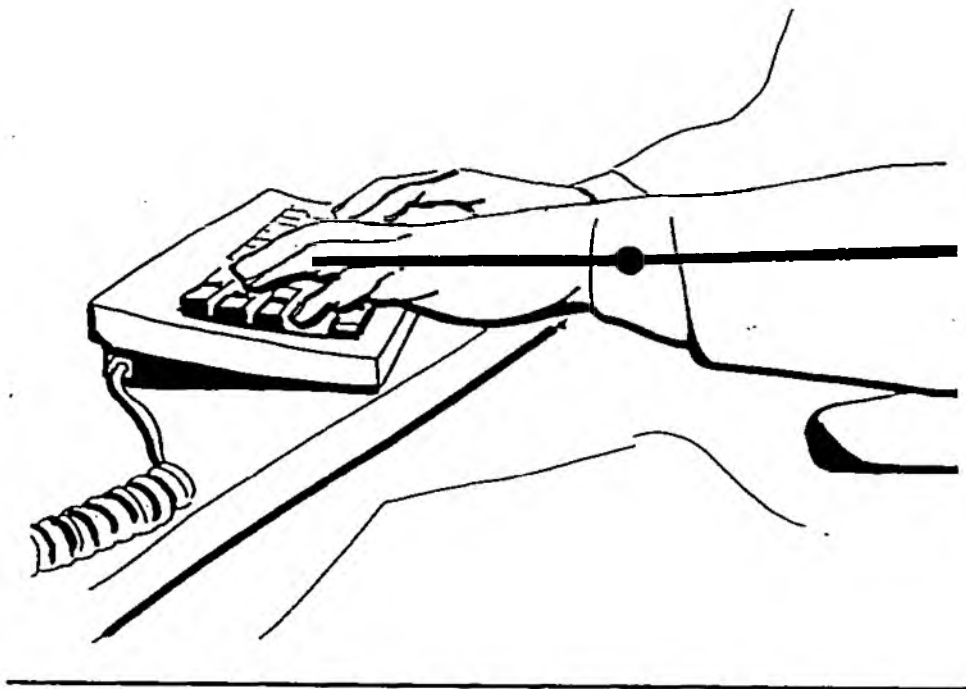
Sit right back in your chair-
Let the back rest support you



Adjust your seat height-
Until forearms are horizontal



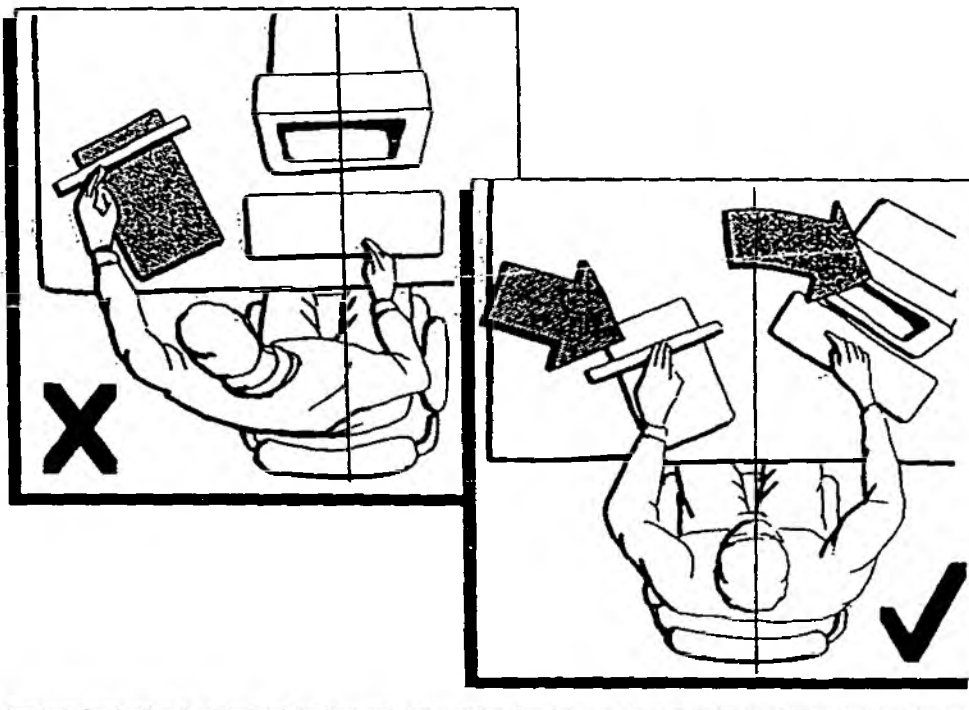
Align hands with Forearms
- Try to work with wrists straight



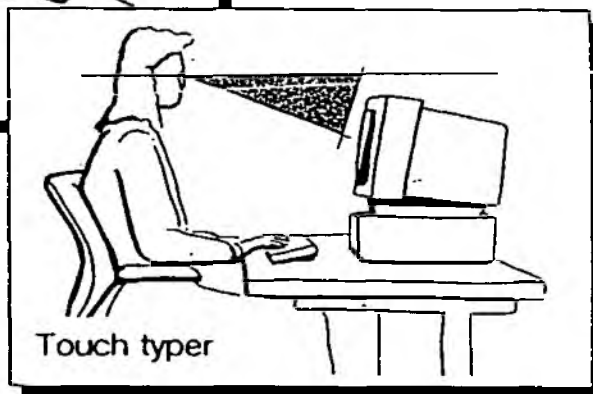
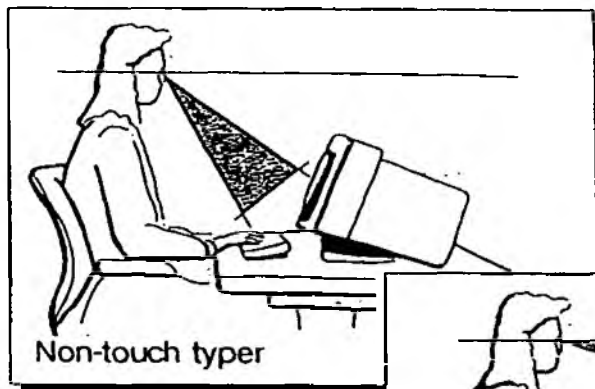
Use a foot rest -
If your seat height is too high



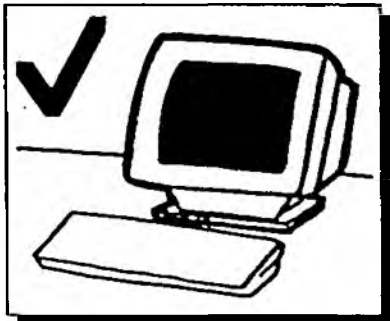
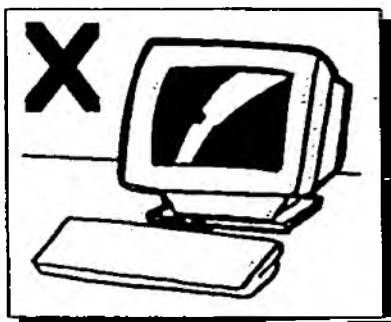
Organise your workstation - To help you sit upright



Adjust your display height - Minimise head/neck movement



Adjust your screen - Try to avoid reflections



YOUR VDU - SELF CHECKLIST

1. EQUIPMENT

Score:
1 = good
5 = poor

Display screen

- the image on the screen is stable, with no flickering or other forms of instability
- the brightness and/or the contrast between the characters and the background is easily adjustable
- the screen swivels and tilts easily
- the screen is free of reflective glare and reflections liable to cause discomfort

Keyboard

- the keyboard is tiltable and separate from the screen
- the space in front of the keyboard is sufficient to provide support for your forearms
- the keyboard has a matt surface to avoid reflective glare

Work desk or work surface

- the work desk or work surface is sufficiently large with a low reflective surface
- the document holder is stable and adjustable and is positioned so as to minimise the need for uncomfortable head and eye movements

Chair

- the chair is stable and allows you easy freedom of movement and a comfortable position
- the seat is adjustable in height
- the seat back is adjustable in both height and tilt
- a footrest is available

(cont)

(cont)

2. ENVIRONMENT

Space requirements

- the workstation is designed so as to provide you with sufficient space to change position and vary movements

Lighting

- room lighting and/or spot lighting (work lamps) satisfactory
- possible disturbing glare and reflections on the screen or other equipment is prevented

Reflections and glare

- workstations are positioned so that sources of light, such as windows cause no direct glare and, as far as possible, no reflections on the screen
- light from windows can be reduced by curtains or blinds

Heat

- equipment belonging to workstation does not produce excessive heat which causes you discomfort

Noise

- noise is minimised

Safety

- no tripping hazards or other safety risks

Diagnosing the effects of Visual Display Equipment on the User

CAUSE	EFFECTS
The Screen eg reflective glare flicker on the screen incorrect positioning	<ul style="list-style-type: none"> - upper limb disorders - eyestrain - headaches/fatigue - neck strain/back pain
The Keyboard eg fixed in position no room to support forearms on desk unclear symbols	<ul style="list-style-type: none"> - upper limb disorders eg RSI - eye strain
The Chair eg poor back support not adjustable for height no footrest	<ul style="list-style-type: none"> - backache - upper limb disorders - uncomfortable posture
The Environment eg inadequate lighting unsecured cables and wires cluttered desk	<ul style="list-style-type: none"> - headaches/tiredness/eye strain - fire/electrical and tripping hazards - poor posture - risk of accidents