

**Occupational Safety and Health
(Display Screen Equipment) Regulation**

**Administration's Response to
Issues raised by Members
at the Subcommittee meeting on 28 November 2001**

At its meeting on 28 November 2001, the Subcommittee requested the Administration to reconsider the present definition of "user" and to spell out the meaning of "user" in the Regulation. Members have also proposed to incorporate the sample risk assessment checklist (i.e. Appendix B to the draft Health Guide) into the Regulation and make necessary amendments to the Regulation and the checklist. In addition, Members requested the Administration to reconsider the issues of strict liability offences and whether a warning mechanism should be built into the Regulation.

2. This paper sets out the Administration's views on Members' suggestions.

I. Definition of "user" and relevant medical information

3. At the last meeting, the Subcommittee discussed options of revising the present definition, e.g. continuous use of DSE for four hours or more every day, and requested the Administration to provide medical information on the relationship between prolonged use of DSE and health problems of employees, so that a practical and clear definition could be devised on that basis.

Relevant Medical Information

4. Prolonged use of DSE is one of the important risk factors for health problems associated with DSE work, i.e. eye discomforts and musculoskeletal discomforts in the neck, shoulders, hands, arms and back. The academia and some national organizations have conducted medical researches to evaluate the relationship between duration of DSE work and prevalence of health problems. The findings of major researches on this subject are summarized below: -

- (a) **A study on DSE use and reported health symptoms among 1,545 clerical workers employed in banking, communications, computer and data processing services, hospitals, public utilities, etc. in the United States (US)**

The study revealed that workers who used DSE four hours or more every day reported an increased prevalence of eye and musculoskeletal discomforts compared with workers who did not use DSE. The magnitude of the increased prevalence was larger for workers who used DSE seven hours or more every day than for workers who used DSE for fewer hours.

Moreover, the study revealed that use of DSE three hours or less every day was not associated with an increased prevalence of eye and musculoskeletal discomforts.

- (b) **A study on upper limb work-related musculoskeletal disorders among 1,007 employees in a metropolitan newspaper office in Canada with extensive DSE use**

The study showed that 20% of employees had upper limb work-related musculoskeletal disorders. These employees were found to have spent an average of 3.9 hours daily on the keyboard, which was significantly longer than the average of 3.2 hours spent by employees who did not have such disorders. Moreover, employees who spent 5 hours daily on the keyboard had a higher risk of developing musculoskeletal disorders compared with those who spent 1.5 hours daily.

- (c) **A US study on work-related upper limb musculoskeletal disorders among 533 telecommunication employees utilizing DSE**

The study revealed that the telecommunications employees spent an average of 7.3 hours per day at their DSE workstations, and 97% of them utilized DSE for at least six hours every day. Twenty-two percent of these employees were found suffering from various upper limb musculoskeletal disorders in medical

examinations, with the most common disorder being tendinitis/tenosynovitis.

(d) A US study on the association between musculoskeletal discomfort among 273 DSE users and ergonomic characteristics of their workstations in a large administrative department

The study showed that the risk of having wrist/hand and neck/shoulder discomforts was increased for participants working seven hours or more daily, as compared with those working three hours or less daily at DSE.

(e) A US study on DSE-related musculoskeletal symptoms among 150 DSE operators in the editorial department of a large metropolitan newspaper

The study revealed that the operators used DSE at work for an average of 5 hours every day, and 25% - 59% of them reported various musculoskeletal symptoms and 38% reported eyestrain during the preceding week. Moreover, it was found that the risk of having musculoskeletal symptoms increased with a greater number of daily hours of DSE use.

(f) A study on musculoskeletal problems among 121 DSE workers in a Hong Kong bank

The study showed that frequent DSE users who spent an average of 5.7 hours daily had significantly more musculoskeletal problems than infrequent users who spent an average of 3.4 hours daily.

5. In summary, the above medical information indicates the following: -

(a) While the results from the studies quoted varied, it may be inferred that employees who use DSE for four hours or more every day have a higher risk of developing health problems

compared with employees who do not use DSE or employees who use DSE for four hours or less every day;

- (b) A major study revealed that use of DSE three hours or less every day was not associated with the increased prevalence of eye and musculoskeletal discomforts.

The Administration's proposal

6. The Administration proposes to revise the definition of “user” given in paragraph 1.3 of the draft Health Guide to mean employees who use DSE **continuously for four hours or more every day, and more or less daily** for the following reasons: -

- (a) this is in line with the findings of relevant medical researches summarised in paragraph 5 above; and
- (b) the understanding in the Labour Advisory Board meeting on 28 October 1996 that the proposed Regulation was not intended to target at people who only used the DSE *intermittently* at work.

7. Taking into account the needs of employees to take short breaks (e.g. going to the washroom) even during continuous spells of DSE work, the Administration proposes to define “continuous” use of DSE to include breaks not exceeding 10 minutes in an hour away from the DSE.

8. In regard to Members’ suggestion that the duration of DSE use by a user should be spelt out clearly in the Regulation, the Administration sees the following difficulties: our proposed definition, if put in the Regulation, would be difficult to apply as it would be necessary for the prosecution to establish whether short breaks taken by employees are within the set limit. For both employees and employers, practical difficulty could be envisaged to remember or keep records of the details of these breaks. Notwithstanding this difficulty, we understand Member’s concern over the provision of a definition in the Health Guide. We therefore propose to incorporate elaboration of the definition of “user” in a code of practice to be issued by the Commissioner for Labour under section 40 of the Occupational Safety and Health Ordinance (OSHO), instead of incorporating it into the Regulation as a schedule. Under section 41 of the OSHO, if a court is satisfied that a code of practice is relevant

to determining a matter that is at issue in court proceedings, then the code is admissible as evidence in court proceedings. Our intention is to provide a reference point that has legal effect. It must however be noted that the enforcement problem we may need to face will be the same.

II. Risk assessment

9. Under section 4 of the Regulation, a person responsible for a workplace shall perform a risk assessment of a workstation, which shall include elements identified in sub-sections (3)(a), (b) and (c). To facilitate performance of risk assessment, a sample risk assessment checklist is provided in Appendix B to the draft Health Guide.

10. Members have expressed concern over whether the compliance standards of a risk assessment, as provided in the sample risk assessment checklist, should be incorporated into the Regulation as a schedule so that a responsible person could discharge his legal obligation under section 4 by completing the incorporated checklist. According to this proposal, sections 4 (3)(a), (b) and (c) should be deleted and section 5 should also be revised to the effect that the responsible person should take follow-up actions in accordance with Part B of the risk assessment checklist.

11. Having studied Members' proposal, we consider that a revised risk assessment checklist should be provided in the form of a code of practice. The code, as mentioned in paragraph 8, would provide a reference point for the court to determine whether the responsible person has or has not complied with the Regulation if it is admissible. Also, the responsible person would not incur a civil or criminal liability only because he has contravened a provision of a code. Amendment of a code is also more flexible than a schedule (which is a subsidiary legislation) to keep abreast of the rapid development of information technology.

12. The proposed code will consist of a list of *questions* that the responsible persons should consider when performing risk assessment of a workstation. The list of questions therein is comprehensive so as to enable the responsible persons to have a better understanding of his obligation under section 4 of the Regulation. Our proposal aims to address Members' concern over the compliance standards for risk assessment, while preserving flexibility

in the face of the wide variety of DSE applications at work.

13. The draft checklist is attached at Annex.

III. Strict liability offences in section 10(4)

14. Section 10(4) provides that offences mentioned in section 10(1) and (2) are strict liability offences. At previous meetings, we have explained to the Subcommittee that having taken legal advice, we consider that the present Regulation, which concerns safety and health of DSE users, justifies the creation of strict liability offences according to the principles laid down in *Gammon (Hong Kong) Ltd. v AG* [1985] AC 1. Strict liability offences under the Regulation are necessary to encourage greater vigilance in complying with the Regulation. At the same time, the creation of these offences enables more effective prosecution and saves considerable resources of the court in deciding whether an offence is strict liability in nature. According to the cases of *AG v Fong Chin Yue* [1995] 1 HKC 21 and *Uniglobe Telecom (Far East) Ltd. v HKSAR* (FACC No. 5 of 1998), the defendant can still rely on a defence that he believes for good and sufficient reason that he has complied with the provision of the Regulation.

15. While sections 5 and 7 have already built in a defence of reasonable practicability for the strict liability offences, the Administration, at the request of the Subcommittee, has extended the same defence to sections 4(5), 6, 8 and 9 to allow some flexibility for compliance with the relevant requirements. We therefore consider that the present Regulation strikes a fair balance between the necessary deterrent effect and sufficient safeguard against the strict liability offences.

IV. Warning mechanism

16. At the last meeting, the Subcommittee also requested the Administration to reconsider spelling out clearly in the Regulation a warning mechanism, under which an improvement notice would be issued to responsible persons for non-compliance with the requirements prior to taking prosecution actions.

17. The Regulation is premised on a self-regulatory concept, which

encourages duty holders to take actions to discharge their liabilities on their own volition and take proactive steps to rectify non-compliance. The Administration has explained in previous meetings that the proposal to provide for a warning mechanism in the Regulation will work against the concept of self-regulation, and the very purpose of introducing the Regulation. Duty holders, knowing well that prosecution will not be initiated if immediate action is taken to comply with an improvement notice, would have little incentive to comply with the requirements before an improvement notice is served. Also, to make it mandatory for warnings to be issued before prosecution is taken out would deprive the Labour Department of the authority to take immediate prosecution actions in the case of blatant non-compliance. When consulted in March 2001, the Labour Advisory Board (LAB) did not support the proposed warning mechanism.

18. In line with the self-regulatory approach, the Labour Department has adopted a new enforcement strategy since 1998, which was endorsed by the LAB. Under the present strategy, improvement notice will be issued first for breaches that will pose risk of a less serious nature. For non-compliance with the improvement notice or breaches that will pose risks of serious bodily injury or ill health, immediate prosecution will be initiated. Such power to serve improvement notice has already been provided in section 9 of the OSHO. We do not therefore consider it desirable and necessary to stipulate a warning mechanism in the Regulation.

Education and Manpower Bureau
December 2001

Workstation Risk Assessment Checklist

Name of organization : _____

Address: _____

Workstation location: _____

Description of tasks: _____

Part A : Assessment

	Yes	No	N.A.*	Remarks
Display Screen				
1. Does the screen give a clear, sharp and steady image?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Are the characters readable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Are the brightness and contrast adjustable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Does the screen swivel and tilt?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Is the screen positioned at about or slightly below the eye level and in front of the user?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Is the screen free from reflections and glare?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Input Devices (keyboard, mouse, numeric pad, etc.)				
7. Is the keyboard tiltable and detached from the display screen?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. Are the characters on the keys of the keyboard/ numeric pad readable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9. Is the keyboard/numeric pad glare free?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10. Are the input devices positioned at about the elbow level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
11. Is there enough space to rest hands in front of the input devices?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Work Desk				
12. Is the desk surface large enough for the screen, input devices and documents?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13. Is there adequate leg-room below the desk?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Chair				
14. Is the base of the chair stable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

	Yes	No	N.A.*	Remarks
15. Do the casters allow easy movement of the chair?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
16. Is the seat height adjustable to suit the body size of the user?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
17. Is the backrest adjustable in both height and tilt to provide adequate support to the lower back?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
18. Is the seat pan padded and free from sharp edges?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
19. Do the armrests, if any, allow the user to get close enough to key comfortably?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Document Holder				
20. Is the document holder, if provided, properly positioned to avoid awkward neck posture and movement?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Footrest				
21. Is the footrest, if required, stable and provided with a non-slip surface?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Illumination				
22. Is the lighting level suitable for the work?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Noise				
23. Is the noise produced by the workstation acceptable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Part B : Follow-up Actions

(If a “No” answer is given to any of the above questions, follow-up actions are required.)

Assessor: _____ Date of assessment: _____

Note: *Not Applicable