

By Mr. Finneran of Boston, petition of the AFSCME Council 93 and Thomas M. Finneran for legislation to provide occupational safeguards for employees from the introduction and utilization of video display terminals. Commerce and Labor.

**The Commonwealth of Massachusetts**

In the Year One Thousand Nine Hundred and Ninety.

AN ACT TO PROVIDE OCCUPATIONAL SAFEGUARDS FOR EMPLOYEES RESULTING FROM THE INTRODUCTION AND UTILIZATION OF VIDEO DISPLAY TERMINALS.

*Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:*

1 SECTION 1. Chapter 149 of the General Laws is hereby  
2 amended by adding after Section 141A the following Section:

3 Section 141B. (1) Every employer intending to introduce new  
4 hardware or software in excess of five thousand dollars (\$5,000)  
5 shall give advance notice in writing to the affected employees at  
6 least six (6) months prior to the installation of such equipment.

7 Section 141B. (2) Employers shall provide, free of expense of  
8 the affected employees, for the eyesight of all proposed full-time  
9 operators to be examined prior to operating the video display  
10 terminal and for periodic visual re-evaluations as needed on a  
11 voluntary basis. Such re-evaluations shall be performed at least  
12 every twelve (12) months. Every visual examination shall consist  
13 of at least the following tests and procedures:

- 14 a. Complete health and work history.
- 15 b. Inspections of the exteriors and interiors of the eyes as well  
16 as the surrounding areas.
- 17 c. Tests of visual acuity — far and near, including refractive  
18 status.
- 19 d. A check of eye coordination and eye muscle control.
- 20 e. A test of the eyes' ability to focus easily from near to far and  
21 back again.

22 f. In addition, the minimum optometric testing set up by the  
23 American Optometric Association.

24 g. If the operator already wears glasses or contact lenses, testing  
25 shall be performed for workstation distance and, where necessary,  
26 work glasses shall be provided by the employer.

27 h. If the eye doctor recommends that an employee stop working  
28 on the machines, he or she will be given other work equal pay  
29 and same conditions of work applicable to the position where the  
30 employee is transferred.

31 Section 141B. (3): Employers shall provide operators with  
32 workstations designed to be adjustable, flexible and ergonomi-  
33 cally correct.

34 Chairs shall be completely adjustable from a sitting position for  
35 height. Backrests shall be fully adjustable to the lumbar region  
36 to provide adequate support.

37 Terminal tables shall be completely height adjustable to the  
38 individual requirements of their users and terminals shall have tilt-  
39 adjustable screen surfaces.

40 Keyboards shall be detached from the visual display screen and  
41 their placement shall be on an adjustable plane so the height of  
42 the keyboard can be adjusted upward and downward.

43 Proper illumination is essential so that both video display  
44 terminal screen and hard copy can be read without undue  
45 discomfort or fatigue.

46 The American National Standards Institute recommends  
47 minimum illumination levels of between 750 lux and 1600 lux for  
48 general office environment. Other recommendations specifically  
49 for video display terminal offices range from between 500 lux and  
50 700 lux.

51 Horizontal illuminance on the screen should be kept low to  
52 minimize reflected glare.

53 Where illumination is over 700 lux for visual tasks, particular  
54 care should be taken to eliminate glare on the screen.

55 Windows shall have drapes and/or vertical blinds which shall  
56 be able to be completely opened and closed.

57 The terminals shall be properly positioned with respect to  
58 windows and overhead lighting so that the glare sources are not  
59 directly in front of the operators, nor are they reflected in the video  
60 display terminal screen.

61 Whenever glare exists in quantity harmful to employees, the  
62 employer will eliminate such hazard by all means practicable, such  
63 as installing screen hoods to completely or partially shield the  
64 screen from reflections; or installing anti-glare filters on the  
65 screens; or installing recessed direct lighting fixtures; or installing  
66 baffles to cover light fixtures to prevent the liminaires from acting  
67 as a glare source; or installing special covers on light fixtures to  
68 direct the light downward rather than allowing the light to diffuse;  
69 relocating light fixtures; or installing indirect lighting systems.

70 The employer will install proper equipment so that temperature,  
71 humidity and ventilation shall meet the minimum standards  
72 prescribed by the American Society of Heating, Refrigerating and  
73 Air-Conditioning Engineers, including the Ventilation Standard  
74 62-81 (Ventilation for Acceptable Air Quality) and any other  
75 relevant or subsequent recommendations. In addition, local  
76 exhaust ventilation shall be provided for point sources of air  
77 contaminants such as wet copiers or printing machines. Areas  
78 where smoking is allowed shall have rates of ventilation sufficient  
79 to protect occupants from the adverse effects of altered air quality.

80 Workstations shall be large enough to avoid excessive heat from  
81 the equipment and to keep background noise below sixty-five (65)  
82 decibels. Noise-reducing covers shall be installed on word  
83 processing printers and any other noisy office equipment.

84 Section 141B. (4): Employers shall maintain all video display  
85 terminals in safe conditions and shall have them regularly  
86 maintained twice a year. Employers shall keep and maintain a full  
87 record of repairs and maintenance for each video display terminal.

88 Section 141B. (5): Employers shall provide flexible rest  
89 periods to operators' requirements. The following minimum  
90 standards shall apply:

91 a. A fifteen (15) minute work-rest break shall be taken after  
92 two (2) hours of continuous video display terminal work for  
93 operators under moderate visual demands and/or moderate work  
94 load.

95 b. A fifteen (15) minute work-rest break shall be taken after  
96 one (1) hour of continuous video display terminal work for  
97 operators under high visual demands high work loads and/or  
98 those engaged in repetitive work tasks.

99 Section 141B. (6): Employers shall give serious consideration  
100 in the design of jobs and in the selection of new technology to  
101 enhance the attractiveness of the job as a means to reduce work  
102 stress and to create motivated and productive workers. Jobs  
103 should provide an identifiable piece of work for which a worker  
104 (or group) can take responsibility and obtain feedback about their  
105 specialized tasks, nor eliminate indicators of progress to the  
106 workers themselves.

107 Measures of performance made available by new technology  
108 shall be prohibited.

109 Any pregnant employee shall be offered alternate employment  
110 at the same work site during the term of the pregnancy. She shall  
111 not be reduced in pay or benefits because of any transfer.

112 No employee shall be required to work at a video display  
113 terminal more than five (5) hours a day. Comparable tasks will  
114 be given to employees at no reduction of pay.

115 Every employer shall provide each employee who operates a  
116 video display terminal with a copy of this Act. Failure to conform  
117 with this Act shall subject the employer to a fine of not less than  
118 one thousand dollars (\$1,000) for each violation. Each day that  
119 such violation continues shall constitute a separate violation.