



Ergonomic Assessment for Mr. Henry Smith

September 11, 2004

ABC

12345 18th St.

Denver, CO 80202

Summary: An ergonomic assessment was requested for Mr. Henry Smith, an employee of RTD. Mr. Smith is not under physician care. Mr. Smith reports discomfort when transitioning between two 24" CRT computer monitors when performing CAD and Adobe Photoshop computer tasks.

Observations: Mr. Smith is a tall man (6' 0") with a proportional body frame. He reports symptoms and signs of shoulder, neck and upper torso discomfort consistent with excessive head movement due to the constant transition between monitors. Mr. Smith was extremely cooperative during the course of the evaluation and was able to articulate his needs in a very clear and concise manner.

Mr. Smith normally sits at a straightaway workstation designed for only one monitor and for a left-hand dominant individual. The workstation is neither adjustable in height through a range of seated and standing positions, nor is the focal distance adjustable. The chair that he has is in poor working conditions and has all of the standard adjustment features. The chair is not sized to sufficiently support Mr. Smith's height and body frame. The computer is Windows-based and has two 24" CRT monitors side-by-side. Mr. Smith has to transition back and forth between the monitors using only one keyboard and mouse. He will be adding a digitizer pad that is 18 inches wide and 14.2 inches deep, which cannot be accommodated on this workstation.

Mr. Smith's duties as a CAD technician include computer design and significant photo mock-up. He is responsible for maintaining all engineering change orders in his work. Mr. Smith receives, in addition to his normally scheduled lunch break, two 15-minute uninterrupted breaks. This job is not electronically monitored, but is production-driven. Employees in his work group are able to move about freely to take micro-breaks. Keyboarding does not appear to approach any levels of risk either due to high keying frequency or sustained moderate frequencies. In fact, touch-typing is not an essential attribute of this job and keying speed does not appear to be a factor. However, mousing and future digitizer use will be compounded by the workstation configuration.

Recommendations: Based on observation and discussion with Mr. Smith, a number of changes were recommended. First, as the workstation is totally inappropriate for the present use and the addition of a digitizer, a bi-level workstation is recommended with a 48" X 24" rear area for the monitors and a 48" X 14.2" forward area for the digitizer, keyboard, mouse and documents. This workstation should have a full range of adjustability from 27" to 43" and should be rated at 250 lbs because of the weight of the two 24" CRT monitors.

Second, As Mr. Smith is tall and is seated for most of his day, a tall back ergonomic task chair such as the Neutral Posture 9600 with adjustable lumbar support is recommended. The chair that he presently has is in very poor condition.

Third, it was observed that Mr. Smith rests his elbows on the present chair's arms because the keyboard was far enough away to allow this. This may present a problem, especially since his elbows are in constant contact with a hard surface. This may aggravate or cause pressure on the ulnar nerve. Softer arm pads for his chair were recommended. It was also recommended that he use a soft polymer gel wrist rest for both the keyboard and the mouse in order to minimize contact pressures on his arm resulting from contact with the workstation surface.

Conclusion: Mr. Smith was very open to all suggestions for modification of his workstation to accommodate his needs. I must reiterate based upon my observation that the present workstation is inappropriate for present and future use (with digitizer) and Mr. Smith's chair is in extremely poor condition and too small to give him the level of thoracic support that his computer-intensive, detail-oriented job entails. ESP can provide a quotation for both the recommended ergonomic task chair and the custom workstation what will meet Mr. Smith's needs.

If there are any questions on this report, please contact me at the number below.

James M. Stewart, M.S., M.P.H., CPE, CIE, CHES
ESP/OfficeSafe™
939 East 62nd Avenue
Denver, CO 80216
303-286-7135
jstewart@espsafety.net

cc: supervisor
safety officer
employee