

We cannot think too highly of nature, nor too humbly of ourselves.

SEPTEMBER 2007
VOLUME 2, ISSUE 4

~ Colton (1780-1832)

To VPP or not to VPP...that is the question

The OSHA Voluntary Protection Program (VPP) is designed to raise the level of safety at a particular facility to the point where compliance is near perfect and where accidents have essentially been reduced to near absolute zero levels.

Only a total 1600 industrial and federal sites in the United States have completed the arduous task of achieving VPP STAR status. It involves 100% cooperation by all members of staff at these facilities in order to achieve the common goal of compliance with no accidents.

SECO is actively evaluating implementing the OSHA VPP for one or more facilities as early as the next fiscal year and in future years.

At present, staff members of SECO and Line Office representatives are completing surveys of random yet similar NOAA facilities to determine the level of compliance of the average facility and what it would take to raise the level of compliance and awareness to the level that would qualify as a VPP site. This study was authorized after OSHA representatives briefed members of the NOAA Safety Council on the benefits of becoming VPP sites.

The noted benefits are as follows:

- * Validation of that particular facilities' Safety and Health process
- * Courtesy OSHA evaluation and protection from citations if they find deficiencies.
- * Recognition as the top rated facility among your peers
- * Competitive Advantage
- * Higher employee morale as their accident rates are lowered
- * Third Party Verification
- * Removal from OSHA's inspection cycle
- * Generates a cooperative environment between workers, management and OSHA

There are several NOAA sites that may become excellent candidates for implementing VPP. Those sites have been identified and a final decision will be made on whether to seek VPP status for these facilities

Tom Altvater, SECO



OSHA Issues Final Rule on Electrical Installation Standard



Electricians who switch high voltage circuits ON and OFF will now be required to wear additional personal protective equipment.

In February 2007, OSHA announced the adoption of Part 1 of the National Fire Protection Association (NFPA) 70E 2007 edition. This is the first time that OSHA has formally adopted editions of 70E in the past 25 years.

The revised standard strengthens employee protections against the ever present arc flash hazards associated with disconnection and switching of circuits and adds consistency between the OSHA requirement and many state and local building codes which have updated NFPA and National Electrical Code (NEC) provisions. According to the standard, electricians who work with high voltage switchgear must now wear full face and head protection, fire resistive clothing and gloves for the protection of arc flash burns while turning equipment ON and OFF. New rules for the workers that are not so protected are still required to adhere to the safe work distance requirements.



Once a proper arc flash analysis has been performed to accurately determine an arc flash protection boundary, the next step must be to identify the level of PPE that is required to be worn by electrical workers. These analyses use the highest potential fault current that is available, and perform a "worst case" scenario, (i.e. use this energy to ground in one major arc flash or explosion).

Electrical engineers will be performing these analyses. With hundreds of facilities affected this will more than likely be a major undertaking at NOAA and the rest of the US Department of Commerce.

The updated standard also includes a new alternative method for classifying and installing equipment in Class I hazardous locations, new requirements for [ground-fault circuit interrupters \(GFCI\)](#) and new provisions on wiring for carnivals and similar installations.

Tom Altvater, SECO

ERGONOMICS IS MORE THAN A CHAIR II

Visual Ergonomics in the Office

Things You Should Know about Eyestrain

1. Eyestrain means different things to different people. It can be experienced as burning, tightness, sharp pains, dull pains, watering, blurring, double vision, headaches, and other sensations, depending on the person. If you have any eye discomfort caused by viewing something, you can call it eyestrain.
2. In VDT computer workstations, the principal factors affecting the ability to see well are:
 - glare
 - the luminance (brightness) difference between what is being looked at and its immediate environment
 - the amount of light
 - the distance between the eye and the screen and document
 - the readability of the screen and document
 - the worker's vision and his or her corrective lenses
3. Watch out for direct glare. Direct glare involves a light source shining directly into the eyes --- ceiling lights, task lights, or bright windows. To determine the degree of direct glare, you can temporarily shield your eyes with a hand and notice whether you feel immediate relief.
4. Reflected glare, such as on computer screens, sometimes causes eyestrain. However, its worst effect may be causing you to change your posture to an uncomfortable one, in order to see well.
5. The most overlooked cause of eyestrain in offices is contrast --- usually, a dark screen surrounded by a bright background such as a window or a lit wall. The best solution is to find a way to darken the area around the screen. This problem occurs mainly on screens with light letters on a black background.
6. How much light is right? It depends on your age, the quality of the print you are reading, and other factors. There should be plenty of light for easy reading, but too much can, depending on the person, cause eyestrain.
7. Eyes are strained more by close viewing than by distant viewing. The "right" distance for computer monitors and documents depends entirely on how clearly
8. they can be read at a given distance. The general rule is to keep viewed material as far away as possible, provided it can be read easily!!!
9. If you gaze at something too long, your eyes can tire. Treatment: Eyes need to focus at different distances from time to time. It's a good idea to follow the "20/20 rule" --- every twenty minutes, look twenty feet away for twenty seconds.
10. If two objects are only a couple of inches different in their distance from the eyes, the eyes actually do NOT have to refocus to look from one to another.
11. Greater distance differences, however, can overwork the eyes if you have to look from one object to another frequently - -- as when typing from printed copy and looking at the screen. In general, keep viewed objects at about the same distance if you have to look back and forth a lot.
12. Can computer work cause nearsightedness? Rarely, according to optometrists. It's more likely that computer work makes you realize that you need glasses.
13. Sometimes eyestrain is just a case of dry eyes. Lowering the monitor can help. Looking downward means more of the eye surface is covered by the eyelid, additionally two other things can occur:
 - the eyes unconsciously blink more, and they produce more lubrication
 - People who need bifocals should consider other options besides bifocals.
 - Two good options are:
 - Computer glasses that focus at the right distance for the computer screen.

ERGONOMICS IS MORE THAN A CHAIR II

continued

- Wearing contact lenses --- corrected for computer or reading distance in one eye, and for far distance (if needed) in the other eye.
13. Bifocal wearers often experience sore necks and shoulders because they have to tip their heads back to see the computer screen.
- Lower the screens as much as possible --- if it sits on the CPU, move the CPU.
 - If necessary, remove the monitor's tilt-swivel base (consult a computer hardware person first) to gain a couple additional inches.
 - Lower the work surface that the monitor sits on.

Performance

Bauer and Cavonius (1980) found a lower error rate, with dark letters on a white background. Snyder and his colleagues (1990) also compared black and white backgrounds. (8) Eight out of (10) Ten subjects increased their performance by using dark letters on a light background. The improvements ranged from a low of 2.0% to a high of 31.6%. The tasks were visual search and proofreading.

Guidelines for monitor placement and lighting

- ✓ Eye-to-screen distance:
at least 25", preferably more.
- ✓ Vertical location:
viewing area of the monitor between 15° and 50° below horizontal eye level.
- ✓ Monitor tilt:
top of the monitor slightly farther from the eyes than the bottom of the monitor.
- ✓ Lighting:
ceiling suspended indirect lighting. Use blinds and shades to control outside light.
- ✓ Screen colors:
dark letters on a light background.

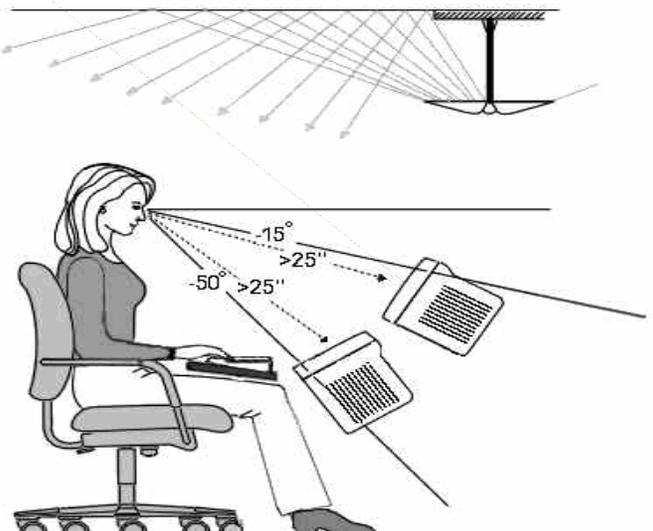
This article suggests guidelines for monitor placement and lighting. They are based on the latest scientific research. Demonstrations illustrate the principles behind the recommendations.

SUMMARY

Ergonomics seeks to adapt the work environment to the capabilities and limitations of the worker. The results should reduced risk of injury, increase productivity and user satisfaction.

These guidelines are meant to be just that, guidelines. The final criteria for judging the effectiveness of a visual environment is not how well it conforms to a set of rules, but rather how well it facilitates the ability of the worker to perform his or her work effectively and without injury.

*Ben Bond, PA
NOAA SECO*



TAKE CARE OF YOURSELF

We all have heard the little truism that “experience is often times the best teacher” and recently I had that little gem reinforced to me in a most personal way.

Unless you have been living above the Arctic Circle this summer, you know we have had two types of weather – HOT! & HOTTER! In this type of weather you have to be very careful with your personal health and safety.

In my case, several weekends ago, I was not feeling so great and finally realized maybe it was more than “just not feeling so great,” but a potentially serious medical problem. So my wife took me over to the local hospital emergency room. I was seen immediately and next thing I know I had an IV bag of Potassium Chloride being injected. After nine hours in the ER, next stop was spending the night in the CCU, being discharged the next morning.

Long story short – the diagnosis was, “severe dehydration and low sodium and potassium.”

This one was a shock... Having served in Vietnam and been an infantry officer for many years training in hot and humid climates, I thought I knew all about “dehydration problems and how to prevent them.” Apparently I had forgotten some of the basics such as:

1. Drink plenty of fluids. In this case, “fluids” means water – good old H₂O! It does not mean ice tea, Diet Coke, Diet Pepsi, beer, coffee, etc. Sure they all have water in them, but “water” means “water.”
2. Maintain adequate sodium and potassium levels in your body. Unless you have a medical problem with sodium, using a little more on your food during hot weather should be considered. Potassium can be easily maintained by enjoying a banana a day.
3. When possible, re-schedule outdoor activities or exercise to either early morning or at dusk when the temperatures are cooler.
4. Get plenty of rest and eat a proper diet.
5. And again, drink plenty of fluids and remember – “fluids” means water!

The person in charge of your personal health and safety is you. Follow the simple rules and avoid the possibility of spending the weekend in a hospital ER and CCU room. It’s not fun and impacts on your wallet!

By Craig Gillis, SECO



Spotting an impaired driver

There are several clues to spotting an impaired driver:

- Weaving, swerving or drifting between lanes
- Driving at very slow or very fast speeds
- Inconsistent signal use
- Erratic and dangerous braking
- Driving with the window down in cold weather
- Driving with tires on the lane markings.

Source: National Highway Traffic Safety Administration

OSHA Publishes New 'It's The Law' Poster

On Feb. 12, OSHA unveiled a new "It's The Law" poster, which informs employers and employees of their rights and responsibilities for a safe and healthful workplace.

The poster, also known as the OSHA notice of employee rights, is required to be displayed in every workplace in America. The current edition of the OSHA poster is still valid; employers are not required to replace their existing poster with the new version.

Using plain language, the poster depicts a variety of employees in various settings -- from the medical field to the construction industry -- and succinctly explains how employees may confidentially file a complaint, report an emergency or seek OSHA advice.

"The new OSHA poster provides employees with the information they need to protect themselves if there are unsafe or unhealthful conditions in the workplace," said Assistant Secretary of Labor for OSHA Edwin G. Foulke Jr. "Presenting clear descriptions of employee rights is an important step, but the new poster also reminds employers of their two most basic responsibilities--furnishing a place of employment free from recognized hazards, and complying with OSHA's hazard-specific health and safety standards."

The OSHA poster, which is free and available in both English and Spanish, may be downloaded from OSHA's Web site at <http://www.osha.gov>. The poster may also be obtained from any OSHA regional or area office, or by writing to the OSHA Publications Office, room N3101, 200 Constitution Ave. NW, Washington, D.C 20210, phone (202) 693-1888.

Occupational Health & Safety, February 2007



According to Tom Altvater, Safety and Health Division Chief: "the original NOAA Employee Safety Awareness Course developed in 2003 has served us well, but it was time to update the chapters, add a few new ones and give the program a new look".

The program takes about one hour to complete and covers the basics of Safety, Health and Environmental issues that all NOAA employees should know. Much like the IT Security program, the Safety Awareness program will be scheduled on an annual basis. The new program can be found through the SECO web site, or at:

<http://ns.learnsecuritywith.us/noasafety7/access/login.asp>

Please visit the SECO home page for further information and other updates on environmental, safety and health training opportunities and program developments.

<http://www.seco.noaa.gov>

ABOUT THIS NEWSLETTER

This newsletter is brought to you by the staff of the Safety and Environmental Compliance Office (SECO). It will be produced on a quarterly basis and posted on <http://www.seco.noaa.gov/> to help increase awareness of the environmental, safety and health programs. If you have any questions or comments, please contact SECO at (301)713-2870.