

DEPARTMENT OF THE ARMY
SAVANNAH DISTRICT CORPS OF ENGINEERS
CESAS-SO P.O. BOX 889
SAVANNAH, GEORGIA 31402-0889

DISTRICT REGULATION
NO. 385-1-14

7 April 1999

Safety and Occupational Health
GUIDELINES FOR ERGONOMICS PROGRAM

1. Purpose. The purpose of the ergonomics program is to:
 - a. Prevent injuries and illness by eliminating or reducing worker exposure to Work Related Musculoskeletal Disorders (WMSD) risk factors.
 - b. Reduce the potential WMSD risk factors by adapting the workplace environment to meet the needs of the worker's capabilities and limitations.
 - c. Reduce workers' compensation claims and associated costs associated with WMSD.
2. Applicability. This regulation applies to all offices in the Savannah District.
3. References.
 - a. AR 40-5 Preventative Medicine, October 1990
 - b. AR 385-10 Army Safety Program, June 1988
 - c. DA Pamphlet 40-ERG (Draft) 1997
 - d. Cumulative Trauma Disorder (CTD) Information Guide, Preventing Cumulative Trauma Disorders in the Workplace, U.S. Army Safety Center, Fort Rucker, AL.
 - e. Memorandum, Deputy Under Secretary of Defense, to OASA (IL&E), dated 4 Feb 97, subject: Ergonomics Program Requirements.

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4. Objectives.

a. Identify workplace risk factors throughout the Savannah District.

b. Implement hazard control methods to eliminate or control the workplace risk factors.

c. Evaluate the effectiveness of the ergonomic program through periodic reviews by the Savannah District Safety and Wellness Committee (SWC).

5. Definitions.

a. Ergonomics. The field of study that seeks to fit the job to the person, rather than the person to the job. This is achieved by the evaluation and design of workplaces, environments, jobs, tasks, equipment, and processes in relationship to human capabilities and interactions in the workplace.

b. Work Related Musculoskeletal Disorders. The range of health problems arising from repeated stress to the body encountered in the workplace. These health problems may affect the nervous and neurovascular systems and may include various occupational induced Cumulative Trauma Disorders, and repetitive motion disorders.

c. Cumulative Trauma Disorders (CTDs). Disorders of the Musculoskeletal or nervous system, which are the result of, or contributed to by, biomechanical risk factors. CTDs are a class of musculoskeletal disorders involving damage to the tendons, tendon sheaths, and related bones, muscles, and nerves. Synonymous with Repetitive Motion Disorders.

d. Carpal Tunnel Syndrome (CTS). CTS occurs when the media nerve is compressed within the carpal tunnel area of the wrist. The median nerve becomes trapped when the tendons become inflamed or swell when the sheath surrounding the tendons becomes irritated and inflamed. As a result of the swelling, the structures within the carpal tunnel expand, and the nerve gets squeezed within the tunnel. Symptoms include numbness,

tingling in the thumb and the first two or three fingers, and burning pain. These symptoms may radiate to the forearm. Oftentimes, symptoms are felt at night.

e. Neutral Posture. The position the body naturally assumes. It is the least stressful, strongest, and most efficient position for the body.

f. Workplace Risk Factors. Actions in the workplace, workplace conditions, or a combination thereof, that may cause or aggravate a work-related musculoskeletal disorder. Workplace risk factors may include, but are not limited to, repetitive, forceful or prolonged exertions; frequent or heavy lifting; pushing, pulling, or carrying of heavy objects; a fixed or awkward work posture; localized or whole body vibration.

6. Responsibilities.

a. The District Commander is responsible for the following:

(1) Establishing an ergonomics subcommittee under the Safety and Wellness Committee, and integrating ergonomics into all phases of the occupational safety and health programs as per AR 40-5, paragraph 5-31.

(2) Approving the District's written Ergonomics Plan based on the recommendations of the Safety and Wellness Committee.

(3) Working with the District's civilian and military personnel, union representatives, and appropriate regulatory authorities to effectively address ergonomics issues.

b. The Safety and Occupational Health Manager (SOH) is responsible for the following:

(1) Designating the District's Ergonomics Coordinator.

(2) Providing the Ergonomics Coordinator information pertaining to injury and illness reports relating to WMSD, Federal Employees Compensation Act (FECA) claims relating to WMSD, and Accident Reports.

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(3) Advising the District Commander on issues relating to Safety and Occupational Health (SOH) including Ergonomics.

(4) Overseeing the safety aspects of the ergonomics program.

(5) Coordinating annual standard Army safety and health inspections required by AR 385-10, and consider WMSDs during the inspection.

(6) Assisting with ergonomics training and education.

(7) Assisting in performing in-depth ergonomic assessments as needed.

(8) Assisting in solving problems related to identified WMSDs.

c. Industrial Hygiene Personnel are responsible for the following:

(1) Serving on the District's ergonomics committee.

(2) Considering WMSDs during routine worksite evaluations.

(3) Performing or assisting in the performance of in-depth ergonomic assessments as needed.

(4) Assisting in solving problems related to identified WMSDs.

(5) Keeping accurate records of identified WMSDs and high risk work areas and solutions; and providing these records to the ergonomics subcommittee for review and tracking.

(6) Providing ergonomic training and education for District personnel. Obtaining ergonomics refresher training annually to maintain expertise.

d. The Ergonomics Coordinator is responsible for:

(1) Being a qualified health or safety professional who has received at least 40 hours of formal ergonomics training.

(2) Chairing the ergonomic subcommittee, providing an interface between the ergonomics subcommittee and the Safety and Wellness Committee (SWC).

(3) Developing and overseeing implementation of the District's ergonomics plan, with the assistance of the ergonomic subcommittee, and the approval of the SWC.

(4) Overseeing, managing, or actually performing the work site analysis, and ensuring its completion.

(5) Ensuring that an internal evaluation and review of program objectives are conducted and reporting the results, with the assistance of the subcommittee, to the SWC.

(6) Ensuring accurate recordkeeping of ergonomics subcommittee reports.

e. The Ergonomics Subcommittee is responsible for:

(1) Under the SWC, assisting in developing and implementing the District's ergonomics plan.

(2) Overseeing and participating in gathering and evaluating injury, lost work time, trend, productivity, and complaint data on work sites and work processes; identifying existing and potential WMSDs; setting priorities for abatement of identified WMSDs; implementing corrective actions for identified WMSDs; and assisting in providing worker training.

(3) Developing methods to evaluate the effectiveness of the corrective actions and documenting the results.

(4) Providing reports to the SWC at least annually.

f. The Occupational Health or Public Health Nurse is responsible for:

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(1) Serving on the installation ergonomics subcommittee.

(2) Reporting all potential WMSDs cases to the District SOH Manager.

(3) Making specific recommendations to the Civilian Personnel Advisory Center (CPAC) on the assignment of injured workers to modified or restricted duty jobs.

(4) Providing at least annually a seminar on WMSDs in the work place, and assisting in training and education.

g. The Union Representative will be responsible for serving as a member of the Ergonomics Committee.

h. The Supervisor will be responsible for:

(1) Ensuring personnel are trained and follow safe work practices.

(2) Recognizing, correcting and reporting hazardous work practices.

(3) Recognizing and reporting early symptoms of potential WMSDs.

(4) Coordinating with trained ergonomics, safety, and health personnel to reduce risks and supporting the overall ergonomic program.

(5) Holding personnel accountable for failure to follow safe work practices and recognizes initiatives in improving operating conditions and procedures through incentive awards.

(6) Providing the necessary equipment and tools, from recommendations of the SOH office, to reduce the health risk of WMSDs.

6. Program Elements of the Ergonomics Plan. The specific critical program elements for ergonomic intervention are:

- a. Worksite Analysis
- b. Hazard Prevention and Control
- c. Health Care Management
- d. Education and Training
- e. Program Evaluation

7. Worksite Analysis. In order to evaluate and identify worksites with WMSD risk factors, systematic passive or active surveillance procedures are used.

a. Systematic Passive Surveillance. This procedure involves the analysis of data provided in existing monthly or quarterly reports. This analysis can identify WMSD problems, set intervention priorities, and organize the ergonomics effort. The SOH office will perform the systematic passive surveillance and communicate the results to the District ergonomics coordinator and committee. Sources of data include:

- (1) Routine injury and illness reports.
- (2) Log of Federal Occupational Injuries and Illnesses.
- (3) FECA claims.
- (4) Medical and Safety records.

b. Systematic Active Surveillance. This procedure involves active participation to gather information about WMSD hazards at worksites and to identify workers at risk of developing a cumulative trauma disorder. Trained ergonomics personnel will perform active surveillance in conjunction with Industrial Hygienist (IH) or safety surveys. Examples of active surveys include questionnaires, observations, and direct measurements at workstations to compare to recommended standards.

c. Prioritization. The Ergonomics Committee or Ergonomics Coordinator will prioritize worksites for detailed analysis based on the passive and active surveillance information. The

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prioritization may be based on incidence rates, the number of workers affected, direct costs, lost work time, or severity of cases.

8. Hazard Prevention and Control. Effective design or redesign of a task or workstation is the preferred method of preventing and controlling exposure to WMSD risk factors. The methods of intervention in order of priority are process elimination, engineering controls, substitution, work practices, and administrative controls.

a. Process elimination simply removes that process creating the WMSD hazard.

b. Engineering controls redesign the equipment or worksite to fit the limitations and capabilities of the workers. This typically offers a permanent solution to a risk factor.

c. Substituting a new work process or tool without WMSD risk factors for a work process with identified WMSD can effectively eliminate the hazard.

d. Work practices that decrease worker exposure to WMSD risk factors include changing work techniques, providing personnel conditioning programs, and regularly monitoring work practices.

(1) Proper work techniques include methods that encourage correct posture, use of proper body mechanics, and correct use of equipment and workstations.

(2) Regular monitoring of operations helps to ensure proper work practices and to confirm that the work practices do not contribute to cumulative trauma injury.

9. Health Care Management. Employees experiencing symptoms of WMSD or supervisors recognizing employee complaints related to symptoms of WMSD shall report to the Occupational or Public Health Nurse providing health services to their worksite. The health care provider shall:

a. Implement protocols to recognize, evaluate, and recommend medical action.

- b. Complete a medical and occupational health history.
- c. Conduct a physical examination that includes, but not limited to:
 - (1) Appearance
 - (2) Range of motion and muscle strength
 - (3) Neurological assessment
 - (4) Vascular assessment
 - (5) Evaluation for pain and tenderness
 - (6) Special tests, such as median nerve percussion, or wrist flexion, when appropriate performed by Occupational Health Nurse.
- d. The health care provider shall contact the District SOH manager.
- e. Reporting. The health care provider will use the following forms to document WMSDs.
 - (1) Log of Federal Occupational Injuries and Illnesses or equivalent.
 - (2) DOL forms CA-2 (all WMSD except back injuries).
 - (3) DOL forms CA-1, CA-16, and CA-17 (Duty Status Report used for back injuries.)

10. Education and Training. The Safety and Occupational Health Office shall integrate ergonomic guidance and standards into existing safety and occupational health training programs. The Public Health Nurse shall provide training seminars on ergonomic related topics at least annually.

11. Program Evaluation. The Ergonomics Committee will conduct at least semiannual program evaluation and review. The results

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of the semiannual review will be presented to the Safety and Wellness Committee.

/s/
JOSEPH K. SCHMITT
COL, EN
Commanding

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