



## Meiners Electric, Company Safety Manual

PAGE: 1 of 7

LAST REVISION:

January 15<sup>th</sup>, 2009

REVIEWED BY:

L. Kirk Berglund, Safety Director

FORM REF No:

SP-ERGO

SUBJ:

**Ergonomics**

### 1. INTRODUCTION

Ergonomics is the study of people and their interaction with the elements of their job or task including equipment, tools, facilities, processes, and environment. It is a multidisciplinary field of study integrating industrial psychology, engineering, medicine, and design.

In a more practical sense, ergonomics is the science of human comfort. When aspects of the work or workplace exceed the body's capabilities, the result is often a musculoskeletal disorder (MSD). To help avoid MSDs, work demands should not exceed the physical capabilities of the worker. MSDs are also known by several other names including:

1. CTDs (cumulative trauma disorders)
2. RSIs (repetitive stress or repetitive strain injuries)
3. RMIs (repetitive motion injuries)
4. Overuse syndrome

The most common, recognizable name for MSDs is cumulative trauma disorders or CTDs. Whatever the name used, these injuries belong to a family or group of wear and tear illnesses that can affect muscles, nerves, tendons, ligaments, joints, cartilage, blood vessels or spinal discs of the body. MSDs do not include slips, trips and falls, cuts, motor vehicle accidents or other similar accidents; although a close look at the reasons for acute injuries often reveals design problems that can be corrected.

### 2. POLICY

It is the policy of Meiners Electric to provide all employees with a safe and healthy workplace. A proactive ergonomics program is integrated into our company's written safety and health program.

Records documenting the identification, prevention, and control of employee exposure to ergonomic risk factors will be maintained pursuant to all regulations.

This program is a collaborative effort that includes office management, field supervision, and field employees. The Safety Director is responsible for the program's implementation, management, and recordkeeping requirements.

### 3. ERGONOMICS PROGRAM

The purpose of an ergonomics program is to apply ergonomic principles to the workplace in



## Meiners Electric, Company Safety Manual

PAGE: 2 of 7

LAST REVISION:

January 15<sup>th</sup>, 2009

REVIEWED BY:

L. Kirk Berglund, Safety Director

FORM REF No:

SP-ERGO

SUBJ:

**Ergonomics**

an effort to reduce the number and severity of MSDs, thus decreasing workers' compensation claims and, where possible, increase productivity, quality, and efficiency. An ergonomically sound work environment maximizes employee comfort while minimizing the risk of undue physical stress.

A proactive approach focuses on making changes when risks have already been identified, as well as incorporating ergonomics into the design phase of a new facility or process, into purchasing new equipment or tools, and into the contemplation of scheduling changes.

1. **Management Leadership.** The management of Meiners Electric is committed to the ergonomics process. Management will support an effective MSD reporting system and will respond promptly to reports. Management will regularly communicate with employees about the program.
2. **Employee Participation.** An essential element to the success of the ergonomics program, employees will be solicited for their input and assistance with identifying ergonomic risk factors, worksite evaluations, development and implementation of controls, and training. Employee participation in the program will occur only during company time.
3. **Identification of Problem Jobs.** Collecting data that identifies injury and illness trends is called surveillance. Surveillance can be either *passive* or *active*. Conducting a records review is an example of passive surveillance, which looks at existing data such as OSHA Logs, workers' compensation claims, trips to the medical facility, and absentee records. Active surveillance uses observations, interviews, surveys, questionnaires, checklists, and formal worksite evaluation tools to identify specific high-risk activities.

### 1. **Worksite Evaluations.**

#### 1. Triggers for a worksite evaluation:

- When an employee reports an MSD sign or symptom.
- Jobs, processes, or work activities where work-related ergonomic risk factors have been identified which may cause or aggravate MSDs.
- Any change of jobs, tasks, equipment, tools, processes, scheduling, or changes in work shift hours (for example, going from a traditional 5-day, 8 hour shift to a compressed 4-day, 10 hour shift).
- When a safety walk-through or scheduled inspection or survey has uncovered potential MSD hazards.

#### 2. Work-related risk factors to be considered in the evaluation process include, but are



## Meiners Electric, Company Safety Manual

PAGE: 3 of 7

LAST REVISION:

January 15th, 2009

REVIEWED BY:

L. Kirk Berglund, Safety Director

FORM REF No:

SP-ERGO

SUBJ:

**Ergonomics**

not limited to:

1. Physical risk factors including force, postures (awkward and static), static loading and sustained exertion, fatigue, repetition, contact stress, extreme temperatures, and vibration.
  2. Administrative issues including job rotation/enlargement, inadequate staffing, excessive overtime, inadequate or lack of rest breaks, stress from deadlines, lack of training, work pace, work methods, and psychosocial issues.
  3. Environmental risk factors including noise, lighting, glare, air quality, temperature, humidity, and personal protective equipment and clothing.
  4. Combination of risk factors such as, but not limited to, highly repetitive, forceful work with no job rotation or precision work done in a dimly lit room.
4. **Setting Priorities.** Worksite evaluations will be scheduled based upon the following:
1. Any job, process, operation, or workstation which has contributed to a worker's current MSD;
  2. A job, process, operation, or workstation that has historically contributed to MSDs; and;
  3. Specific jobs, processes, operations, or workstations that have the potential to cause MSDs.
5. **Worksite Evaluations Methods.** Various methods will be used to evaluate problem jobs including:
1. Walk-through and observations along with scheduled safety audits
  2. Employee interviews
  3. Checklists
  4. Job Hazard Analysis (JHA)
6. **Control of the Ergonomic Risk Factors.** Meiners Electric will take steps to identify ergonomic risk factors and reduce hazards by using a three-tier hierarchy of control (in order of preference):
1. Engineering controls. The most desirable and reliable means to reduce workplace exposure to potentially harmful effects. This is achieved by focusing on the physical modifications of jobs, workstations, tools, equipment, or processes.
  2. Administrative controls. This means controlling or preventing workplace exposure to potentially harmful effects by implementing administrative changes such as job rotation, job enlargement, rest/recovery breaks, work pace adjustment, redesign of



## Meiners Electric, Company Safety Manual

PAGE: 4 of 7

LAST REVISION:

January 15<sup>th</sup>, 2009

REVIEWED BY:

L. Kirk Berglund, Safety Director

FORM REF No:

SP-ERGO

SUBJ:

**Ergonomics**

methods, and worker education.

3. Personal protective equipment (PPE). Although not recognized as an effective means of controlling hazards and do not take the place of engineering or administrative controls, there are acceptable forms of PPE, which include kneepads and anti-vibration gloves.
7. **Training.** Training is intended to enhance the ability of managers, office staff, foremen, and field employees to recognize work-related ergonomic risk factors and to understand and apply appropriate control strategies. Training in the recognition and control of ergonomic risk factors will be given as follows:
  1. To all new employees during orientation.
  2. To all employees assuming a new job assignment.
  3. When new jobs, tasks, tools, equipment, machinery, workstations, or processes are introduced.
  4. When high exposure levels to ergonomic risk factors have been identified.

The minimum for all managers, office staff, foremen, and field employees will include the following elements:

1. An explanation of Meiners Electric ergonomics program and their role in the program;
2. A list of the exposures which have been associated with the development of MSDs;
3. A description of MSD signs and symptoms and consequences of injuries caused by work and non work-related risk factors;
4. An emphasis on the importance of early reporting of MSD signs and symptoms and injuries to management, and;
5. The methods used by Meiners Electric to minimize work and non work-related risk factors.

Training will be provided in one, or a combination, of the following formats:

1. Oral presentations
2. Videos
3. Distribution of educational literature
4. Hands-on equipment and work practice demonstrations

Trainers will be experienced in delivering training programs that address all work and non work-related risk factors, and will be familiar with Meiners Electric operations. Training will be provided from one, or a combination, of the sources listed below:



## Meiners Electric, Company Safety Manual

PAGE: 5 of 7

LAST REVISION:

January 15th, 2009

REVIEWED BY:

L. Kirk Berglund, Safety Director

FORM REF No:

SP-ERGO

SUBJ:

**Ergonomics**

- Internally developed resources
- The workers' compensation carrier
- An outside consultant

All training will be documented:

- All employees will be required to sign a training sign-in roster.

### 2. **MSD (Medical) Management and Return-to-Work.**

Pursuant to the law, Meiners Electric provides medical care to all employees injured at work.

In the event of a work-related injury or illness, the health care provider will:

1. provide diagnosis and treatment for employees;
2. determine if reported MSD signs or symptoms are work-related;
3. comply with Early Return-to-Work program by recommending restricted, modified, or transitional work duties when appropriate;
4. refer injured employees to other clinical resources for therapy or rehabilitation;
5. provide with timely work status reports.

3. **Program Evaluation and Follow-Up.** In order to ensure that issues have been addressed and that new problems have not been created, monitoring and evaluation will be conducted on an on-going basis. The methods include use of individual interviews and checklists to reevaluate the job/task to ensure that risks have been reduced, minimized, or eliminated.

## 2. **INDIVIDUAL RESPONSIBILITIES**

1. **Safety Director.** The Safety Director will report directly to upper management and be responsible for this policy and program. All evaluations, controls, and training will be coordinated under the direction of the Safety Director in collaboration with management. The Safety Director will monitor the results of the program to determine additional areas of focus as needed.

The KYOSHA Administrative Personnel:

1. ensure that evaluators performing worksite evaluations and training are properly



## Meiners Electric, Company Safety Manual

PAGE: 6 of 7

LAST REVISION:

January 15<sup>th</sup>, 2009

REVIEWED BY:

L. Kirk Berglund, Safety Director

FORM REF No:

SP-ERGO

SUBJ:

**Ergonomics**

- trained;
2. ensure that control measures are implemented in a timely manner;
  3. ensure that a system is in place for employees to report MSD signs or symptoms and suspected work-related risk factors to managers and supervisors;
  4. ensure that accurate records are maintained and provide documentation upon request;
  5. schedule manager, supervisor, and employee training and maintain records to include date, name of instructor, topic, and materials used, and;
  6. monitor the program on a quarterly basis and provide an annual review.
  7. follow-up with any ergonomics strategy and/or solutions.
2. **Managers/Superintendents.** Duties of all managers/superintendents will include:
1. accountability for the health and safety of all employees within their areas of control through the active support of the ergonomics program;
  2. allocating human and/or financial resources;
  3. attending ergonomics training to familiarize themselves with the elements of the program, recognition and control of work-related ergonomic risk factors, MSD signs and symptoms, early reporting requirements and procedures, and medical management;
  4. ensuring that supervisors and employees have received the appropriate training;
  5. ensuring that ergonomics practices and principles are considered when conducting worksite evaluations, and;
  6. providing appropriate workers' compensation documentation to employees as required by all regulations;
  7. seeking clarification from the office administrative staff when return-to-work directives from the health care provider are unclear, and;
  8. ensuring that recommended controls are implemented and/or used appropriately through active follow-up.
3. **Foreman/Crew Leaders.** Duties of all foremen/crew leaders will include:
1. attending ergonomics training to familiarize themselves with the elements of the program, recognition and control of work-related ergonomics risk factors, MSD signs and symptoms, early reporting requirements and procedures.
  2. ensuring that employees have received the appropriate training;
  3. ensuring that employees are provided with and use the appropriate tools, equipment, parts, and materials in accordance with ergonomic requirements;
  4. ensuring that employees understand the MSD signs and symptoms and early reporting system;
  5. responding promptly to employee reports;



## Meiners Electric, Company Safety Manual

PAGE: 7 of 7

LAST REVISION:

January 15<sup>th</sup>, 2009

REVIEWED BY:

L. Kirk Berglund, Safety Director

FORM REF No:

SP-ERGO

SUBJ:

**Ergonomics**

6. maintaining clear communication with managers, office staff and field employees.
4. **Employees.** Every employee of Meiners Electric is responsible for conducting himself/herself in accordance with this policy and program. All employees will:
  1. when provided, use the appropriate tools, equipment, parts, materials, and procedures in the manner established by managers and supervisors;
  2. ensure that equipment is properly maintained in good condition and when not, report it immediately;
  3. provide feedback to supervisors regarding the effectiveness of design changes, new tools or equipment, or other interventions;
  4. attend ergonomics training as required and apply the knowledge and skills acquired to actual jobs, tasks, processes, and work activities;
  5. report MSD signs or symptoms and work-related MSD hazards to the supervisor as early as possible to facilitate medical treatment and initiate proactive interventions, and;
  6. take responsibility in their personal health and safety.

### 3. ANNUAL PROGRAM REVIEW

The Safety Director will conduct an annual program review to assess the progress and success of the program. The review will consider the following:

1. Evaluation of all training programs and records.
2. The need for retraining of staff, foreman and field employees.
3. The jobs, processes, or operations which have produced a high incidence rate of work-related MSDs.
4. The length of time between a request for an ergonomic evaluation and the actual evaluation.
5. The length of time between the point at which the results of the evaluation are known and when implementation of controls begins.
6. The length of time between the beginning and completion of implementation of controls.
7. The program's success based upon comparison to previous years using the following criteria:
  1. Number and type of lost workdays associated with OSHA recordable cases.
  2. Cost of workers' compensation cases.
  3. Employee feedback through direct interviews, walk-through observations, written surveys and questionnaires, and reevaluations.