



ERGONOMICS & MANUAL MATERIAL HANDLING

Integrated Water Services, Inc.
(the Company)



Purpose

The purpose of this program is to prevent musculoskeletal disorders (MSDs), strains, sprains, and other ergonomic injuries by establishing requirements for ergonomic hazard assessment, safe manual material handling, proper lifting techniques, use of lifting assistance equipment, and injury prevention through planning, training, and early intervention.

Scope

This procedure applies to all Integrated Water Services (IWS) employees performing manufacturing, construction, field service, maintenance, warehouse, office, and other work activities where ergonomic hazards or manual material handling may exist.

When work is performed by a subcontractor on an IWS project, the subcontractor's written safety program shall govern its employees. However, subcontractors shall comply with applicable IWS project safety requirements while performing work on behalf of IWS.

Key Responsibilities

Supervisors

- Ensure ergonomic hazards are evaluated during planning activities and incorporated into the daily Job Hazard Analysis (JHA).
- Ensure employees receive required training.
- Provide lifting devices and other equipment when appropriate.
- Ensure employees understand Stop Work Authority when a lift cannot be completed safely.
- Investigate ergonomic injuries and identify opportunities for improvement.

Employees

- Follow all aspects of this procedure.
- Evaluate every lift before attempting it.
- Use proper lifting techniques.
- Request assistance whenever a load cannot be safely handled.
- Use lifting devices whenever required.
- Report ergonomic concerns, discomfort, or repetitive motion symptoms before an injury occurs.
- Participate in stretching activities as directed.

Procedure



Ergonomic Hazard Assessment

- Ergonomic hazards shall be identified during:
- Daily Job Hazard Analyses
- Pre-task planning
- Process changes
- New equipment installation
- Incident investigations
- Employee reports

Hazards shall be evaluated for:

- Force
- Repetition
- Awkward posture
- Duration
- Contact stress
- Vibration
- Environmental conditions

Manual Material Handling

Employees shall:

- Plan the lift before beginning.
- Determine the weight and center of gravity whenever possible.
- Ensure travel paths are clear.
- Keep loads close to the body.
- Avoid twisting while lifting.
- Turn with the feet instead of twisting the torso.
- Maintain good footing.
- Lower loads using proper body mechanics.

Administrative Lifting Guideline

IWS recognizes there is no OSHA-established maximum lifting weight. Accordingly, the following administrative guidelines are established:

- **Up to 40 pounds**
One employee may perform the lift when it can be completed safely.



- **40 to 75 pounds**
Employees shall evaluate the lift and utilize a team lift or mechanical lifting assistance whenever practical.
- **Greater than 75 pounds**
Mechanical lifting equipment shall be used unless a documented JHA identifies another equally safe method.

Employees shall never attempt to lift any object they believe exceeds their physical capability regardless of weight.

Stop Work Authority applies to all lifting activities.

Team Lifting

- Team lifts shall be used whenever:
- The load is bulky.
- Visibility is obstructed.
- The load is unstable.
- The load exceeds one person's capability.
- The JHA identifies a team lift as the preferred control.

One employee shall direct the lift to ensure coordinated movements.

Mechanical Lifting Equipment

Whenever practical, employees shall use mechanical lifting devices including but not limited to:

- Forklifts
- Hoists
- Overhead cranes
- Gantry cranes
- Chain falls
- Dollies
- Pallet jacks
- Material carts

Equipment shall only be operated by trained personnel.

Stretching Program

IWS maintains a workplace stretching and injury prevention program facilitated through WorkCare.



Employees shall participate in stretching activities as directed before beginning work and whenever recommended based upon work activities.

Stretching is intended to reduce muscle fatigue, improve flexibility, and prepare employees for the physical demands of their work.

Training

Employees shall receive training appropriate to their assigned duties including:

- Ergonomic awareness
- Manual material handling
- Safe lifting techniques
- Team lifting
- Use of lifting assistance equipment
- Recognition of ergonomic risk factors
- Early reporting of discomfort
- Daily JHA participation

Training shall be provided during onboarding and periodically thereafter based upon work exposures.

Reporting

Employees shall immediately report:

- Muscle strains
- Sprains
- Repetitive motion discomfort
- Back pain associated with work activities
- Defective lifting devices
- Ergonomic concerns

Early reporting allows corrective action before injuries become recordable events.

Continuous Improvement

Ergonomic injuries, near misses, and employee feedback shall be reviewed to identify opportunities for improvement.

Corrective actions shall be documented and tracked through the IWS HSEQ Management System.

Ergonomic hazards shall be considered during equipment design, procurement, workplace layout, and process improvement activities.