

OSC 10
Ohio Safety Congress & Expo

OSHA and ergonomics: Now what?
256
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OSHA & Ergonomics: Now What?



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2010 Ohio Safety Congress **OSHA** Occupational Safety and Health Administration

Agenda

- Where we have been?
- Where we are going?
- Elements of an Ergonomics Program
- Resources



OSHA Ergonomics

Strange Brew

Equal Portions of Science and Politics



OSHA Ergonomics

- Started seeing repetitive motion and back injuries - 1978
 - Kodak
 - Tooele, Utah - 1979
- General Duty Clause
 - Required to maintain a workplace free of recognized hazards




Enforcement

- John Morrell: 1988
- Samsonite: 1990
- General Motors: 1990
- Ford CSA 1990
- Pepperidge Farm: 1993
- Dayton Tire: 1993
- Beverly Nursing Homes: 1992





Ergonomics Standard

- Standard issued 12/1999
 - Program not specification
 - Based on years of practical success
- Final standard takes effect 1/2000
- Standard rescinded by Congressional Review Act 3/2001 – Bush signs




What is new?

- Recordkeeping NEP
 - GAO Report
 - Discovered cases
- MSD column on OSHA 300 Log
 - Identify work related MSDs
 - Accurate national data



What Now?



- We understand it may be difficult but:
 - "Doing Nothing Is Not An Option"
 - OSHA Standards Apply
 - 5(a)1 – Must Maintain a Workplace Free of Recognized Hazards
 - Others are also interested
 - Insurers
 - Unions
 - Share Holders
 - Your Most Valuable Asset
 - Quality, Reputation



2001: New Approach

4 Prong Approach

- Industry and Task - Specific Guidelines
- Outreach and Assistance
- Advancing Research
 - National Advisory Committee on Ergonomics - NACE
 - Academia, Insurance, Business, Labor
- Enforcement



4 Prong Approach: Industry and Task-Specific Guidelines

- Work with stakeholders to develop industry and task-specific guidelines for industries and particular hazards
 - Meatpacking Guidelines, Nursing Homes, Retail Grocery, Poultry, Ship Building
- Some Trade Groups Are Writing Their Own Guidelines
 - Furniture Manufacturers
 - Telecommunications Industry



4 Prong Approach: Outreach and Assistance

- Materials To Help You Help Yourself
- SLTC – Electronic Tools –
 - www.osha.gov
- Technical Links Pages – e-Tools
 - Using Our Experience – Past
 - Encourage others to develop best practices – Future
 - Alliances
 - VPP
 - Partnerships



4 Prong Approach: Enforcement

Inspection Plan

- Industries which have been identified as having a significant number of injuries related to ergonomics
 - Data initiative
 - National Emphasis Program
 - Local Emphasis Program
 - Complaints



4 Prong Approach: Enforcement

Inspection Personnel

- Compliance officers with experience and expertise in ergonomic related inspections
- Ergonomic Coordinators in each Regional Office
- National Ergonomic Response Team
- Outside ergonomics experts



4 Prong Approach: Enforcement

- Hazard Must Exist
- Hazard Must Be Recognized
- The Hazard Cause Serious Physical Harm
- There Must Be Feasible Abatement



4 Prong Approach: Enforcement

Citation

- 5(a)(1)

Letter to company

- Ergonomic Hazard Alert Letter
- Acknowledgement Letter



Enforcement: Citations

1. Alpha Health Services, 2/21/03
2. Security Metal Products, 2/26/03
3. SuperValu, 5/21/07
4. Brown Printing, 5/27/03
5. Mariner Health Care, 6/19/03
6. Tri-State Coca-Cola Bottling, 7/14/03
7. Regency Senior Services LLC, 8/18/03
8. Madonna Manor, 8/26/03
9. Haven Health of Norwich, 11/7/03
10. Aiden Court, 2/12/04
11. Pepsi Bottling Group, LLC (Pepsi), 6/10/04
12. Jacksonville Health and Rehab, 8/16/04
13. Tree of Life, 8/3/04
14. Wolcott Hall, 11/3/05
15. Haven Health of Jewett City, 1/31/08
16. Bath Iron Works, 2/21/08



Ergonomics Direction



Ergonomics Program Elements

All Ergonomic Guidelines and Elements of Ergonomics Programs:

1. Management commitment
2. Employee involvement
3. Job analysis
4. Training
5. Control implementation
6. Medical management
7. Program management



Training

- Recognition of signs and symptoms
- What to report and to whom to report
 - What are supervisors to do with the report
- Recognition of the hazardous situations
- Job analysis
- Problem solving techniques
- Development of control measures



Find the Problems: Records

- For the past three years
 - Check OSHA logs
 - Use task hours and do rates
 - Check Workers Comp data

Find the Problems: Records

- Look for clusters and trends
- By body part
 - Back, shoulder, distal upper extremity (elbow, wrist, hand, fingers)
- By year
- By task
- Time of year
- Location

Calculate the MSD Rate

Formulas:

Department MSD DART =

$$\frac{\text{\# of MSD cases with lost workdays or restricted work} \times 200,000}{\text{\# of Department hours worked}}$$

OR

$$\frac{\text{\# of MSD cases with lost workdays or restricted work} \times 200,000}{(\text{\# of Department employees}) \times 2000}$$



Job Analysis: Procedures

- What Must Be Done?
 - Establish an ergonomics procedure to analyze the job to see
- Who Will Address It?
 - Utilize the Workers Knowledge
- How?
 - Checklist
 - NIOSH Lifting Equation, Strain Index, RULA, REBA.....
 - See What Others Are Doing



Job Analysis: Observation Link



- What body parts are stressed?
- Which tasks show potential hazards?
- What do the employees say?

Work Risk Factors



Put on your ergonomics eye

What tasks are taxing the physical capabilities of the employee:

Risk factors:

- Force
- Awkward posture
- Repetition
- Contact Stress
- Vibration
- Duration

**The Force is
Against You...**

Control Interventions: Solutions

1. Eliminate the hazardous exposure
2. Reduce the level of exposure
3. Reduce the time of exposure
4. Rely on employee behavior

R
I
S
K

High
Moderate
Low

FORCE
REPETITION
POSTURE
DURATION

Control Intervention: Solutions

- Elimination
- Substitution
- Engineering Controls
- Administrative Controls
- Work Practice Controls
- Training
- Personal Protective Equipment



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Process Follow-up

- Follow-up on solutions to:
 - Check for effectiveness
 - Ensure didn't create additional hazards
 - Acceptance
- Follow-up on Medical Management
 - Treatment was effective
 - No new problems

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Medical Management

- Establish Access to Health Care Professional
 - Should be Familiar with Job
- Address Medical Problems Early
 - Evaluation and follow-up
 - Work restrictions if necessary
 - Ensure that Supervisors Understand Restrictions



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Process Management

Reactive	Proactive
Medical Management	Management Commitment
Worksite evaluation	Hazard Prevention and Control
Employee Involvement	
Training and Education	



Ergonomic Investigation Not Inspection

- We conduct our investigation the way we think you might conduct yours
 - Injury/illness data (rates, severity, trends)
 - Walk-through and interviews
 - Video taping
 - On-site visit from experts
 - Evaluation of interventions



Ergonomics: Resources

www.osha.gov
OSHA Consultation Services

www.cdc.gov/niosh
www.dir.ca.gov
www.lni.wa.gov
www.nsc.org
www.ergoweb.com

<http://ergo.human.cornell.edu/CUEHinfo.html>
<http://personal.health.usf.edu/tbernard/ergotools/index.html>

Ergonomics: Free Resources

NIOSH Elements of Ergonomics Programs, #97-117

Ergonomics Guidelines for Manual Material Handling,
#2007-131

Easy Ergonomics: A Practical Approach for Improving
the Workplace



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