Pitney Bowes

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Systems Ergonomics

The Internet

Ergonomics is a process not a purpose

Purposes of the ergonomics process E4S4

Scope of ergonomics: Physical, Sensory, Cognitive, Affective, Social, Environmental, Temporal

Complexity: People, Technology, Operations, Context, Time, Variability, interactions

Process of Ergonomics: Research, Analysis, Simulation, Design / Intervention, Evaluation, Investigation

Requirements of the. Ergonomics process: Human and Engineering Science, Methods and Tools, Domain Knowledge

The 6 Us and 2 Ms: Use, Misuse, User, Misuser, Usage, Utiliztion, Ease of use and misuse, User error

Human Characteristics, Capabilities and Limitations

Physical, Sensory, Cognitive, Affective, Social, Environmental, Temporal

Human stress strain. relationships and accommodations

Measurement:

Laboratory, workplace, simulators, mock ups, simulation

Anthropometry, Biomechanics, Physiology, Psychophysics

Ethnography, operations analysis, behaviour analysis, performance

Surveys: opinions, symptoms

Focus groups

Checklists

Workability Index

Activity sampling, JPAS

Hand activity level

Manual materials handling : NIOSH lift equation, Snook tables

Pitney Bowes Checklist:

Checklist on checklists: usability, accuracy, relevance, efficiency, intervention oriented

Ergonomics Programs

Management commitment, employee involvement

Participation

Ergonomics Team: ergonomist, safety, engineering, production management, maintenance, employee representatives, medical, HR

Workplace walk through: checklist, problem jobs, restricted jobs

Design and Intervention

Space, Time, Force, information, physical agents

Physical interactions: movement range, velocity, acceleration, jerk, pounding, pressure, stamina, fatigue

Information interactions: awareness: situation, spatial, operations, procedures, collaborations

Engineering controls: Product design, workplace, tools, assists, fixtures, hoists, conveyors, containers, ppe

Administrative controls: methods, training, rotation, horizontal enlargement, vertical enlargement, self directed teams, utility workers

Quality, productivity, health and safety management: visual controls, feedback

Medical Management of WRMSDs

Symptoms reports

Medical evaluation

Treatment

Work modification

Restrictions

Return to work

Surveillance