Development and Implementation of a Successful Global Ergonomics Program

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Ergonomics at Applied Materials

• Ergonomics related injuries are the primary injury statistic for Applied Materials
• We developed a goal of reducing ergonomics related injuries and supporting global ergonomics standards/guidelines
• Implementation of a global program was a key part of this goal
• Focus of today’s presentation will show you the steps taken to make the implementation of the global program a success
Today’s Objectives

• Who is Applied Materials
• Applied’s Ergonomics Program and its components
• Implementation challenges, successes and lesson learned
Applied Materials?

Applied Materials is the global leader in Nanomanufacturing Technology solutions for the electronics industry with a broad portfolio of innovative equipment, services and software products for the fabrication of semiconductor chips, flat panels, solar photovoltaic cells, flexible electronics and energy efficient glass.

At Applied Materials, we apply nanomanufacturing technology to improve the way people live.
Applied Materials Locations

~ 14,000 employees
~ 15 countries
~ 101 worldwide locations
Initial Program

- Started informally at corporate level in Santa Clara, CA
- Corporate ergonomists performed all the Santa Clara region evaluations and supported other regions with evaluations over the phone
- Some sites performed evaluations locally
- All workers were provided with ergonomics awareness training during new hire orientation and every three years
Initial Program

• Corporate EHS created an internal ergonomics website and ergonomics lab
• Established critical partnerships with Facilities, Wellness, IS&T and Health Services groups
• All reports in Word document form and stored on a shared server
Program Elements

• Formal written documentation
• Ergonomics self-assessments and evaluations
• Stakeholder meetings
• Training
• Ergonomics database
Formal Program – Documentation

• Written documents include a policy, program, forms and work instructions.
• Program modeled on existing corporate run program
• Program documentation includes
  – Purpose and scope
  – References
  – Acronyms and definitions
  – Responsibilities (EHS, worker, manager, etc.)
  – Program requirements (elements)
  – Records retention
Formal Program – Evaluations

• Ergonomics Office Self-Assessments
• Formal Ergonomics Evaluations
  – Request
  – Cycle times (priority levels)
  – Evaluations and reports
  – Follow-ups and reports
  – Surveys
  – Tracking log
  – Case closure
Formal Program – Training

• Stakeholder meetings
  – North America
  – Europe
  – Asia

• Employee Awareness Training
  – All new hires
  – Repeated every three years
  – Classroom and computer based training options

• Ergonomics Evaluator Training
Who can be an evaluator?

- Background in EHS or Health related field
- Trained in-house on basic ergonomics and performing office ergonomics evaluations, Applied’s program, requirements and database
- Ergonomics contractors were trained on Applied’s program, requirements and database
Ergonomics Evaluator Training

• Training developed in-house and delivered by Corporate EHS
• Face to face training in all regions
• Two day training course consisting of:
  – Basic ergonomics
  – How to perform an ergonomics evaluation
  – Ergonomics products overview
  – Furniture overview (specific to each region) – come up with “out of the box” alternatives
  – Evaluation Shadowing
Ergonomics Evaluator Training

Challenges:

• English as a second language in many regions
• “Common” ergonomics and medical terms do not always translate well
• Traveling to the site to perform face to face training required
• Some regions don’t report ergonomics related injuries
Ergonomics Evaluator Training

Solutions:

• Use “simple” terminology and pictures to demonstrate concepts
• Talk slowly
• Allow plenty of time for questions
• Don’t assume that silence means understanding
• Give lots of examples that they can relate to, e.g. ergo issues with laptops
Ergonomics Program Database

Created for case management and program support so that implementation is easier for all regions.
Ergonomics Program Database

- Evaluation Request
- Evaluation Report
- Reminders
- Follow-up Report(s)
- Missed Visits
- Limited access to secure privacy

- Tracking Log
- Follow-up Survey
- Customer Satisfaction Survey
- Priority Levels
- Statistics
- Facilities section
North American Program Rollout

• Three main regions
  – Santa Clara – Corporate and R&D labs
  – Austin – Manufacturing
  – AMNA – Customer/Sales Support

• Local EHS is responsible for implementing program and determining who their evaluators are based on corporate guidelines
North American Program Rollout

• Santa Clara and Austin dedicated EHS, Health Services and some contracting ergonomists as evaluators

• AMNA (Applied Materials North America)
  – Posed unique challenges since they are a customer based group of sales/account personnel and customer engineers (CEs) that are located at many different sites all over the U.S.
  – The next few slides focus on their challenges and solutions
AMNA Program Rollout

Challenges:

– CEs work at the customer’s site
– Most CEs have laptops and/or share workstations
– Workstations can be at the customer site or Applied field office
– Limited EHS staff for all of AMNA sites
AMNA Program Rollout

Challenges:

– Some furniture is supplied by customer and may not be adequate – Who is responsible for supplying appropriate furniture and equipment?
– No on-site staff to perform office ergonomics evaluations
– Obtaining permission to get contractors on secured customer sites to perform evaluations is difficult
AMNA Program Rollout

Solutions:

– Worked with AMNA safety manager to write AMNA specific program documents that comply with the corporate program but addresses their specific needs

– AMNA set up an account with a consulting group to support almost all sites on an as-needed basis

– Some sites had all workers evaluated while others perform them as needed
AMNA Program Rollout

Solutions:

- Each consultant was trained on Applied Program, forms, furniture and available products
- Each account team safety manager was trained on their program and responsibilities
- Site coordinators were trained to assist account team safety managers in inputting ergonomics evaluation reports and ordering products
Global Program Rollout

Ergonomics Evaluator Training to regions outside North America

– 1st round of training began in Singapore, China, Korea, Japan and Taiwan
– 2nd round included the UK and the rest of Europe
Global Program Rollout

Challenges:

- Some regions have limited EHS staff supporting all EHS programs at multiple sites
- Some regions do not report ergonomics related injuries/concerns or the need for ergonomics evaluations
- Difficult to find ergonomic friendly product suppliers
- Some regions consider the discomforts in the office are part of the job and do not raise them to their management or EHS attention
Global Program Rollout

Challenges:

– English is the common language of Applied but for many regions it is a secondary language
– Furniture varies at each site
– Some regional budgets set for the entire year and cannot fund unplanned ergonomic expenses
Global Program Rollout

• Solutions:
  – Research furniture available at each site before visiting
  – Keep concepts simple and use pictures
  – Give specific examples workers can relate to
  – Work with large suppliers of ergonomics related products to see if they can support multiple regions and use some local suppliers for regions they can’t support – this is still a challenge
  – Give heads up to regions when implementation is to begin so they can include it in their budgets
Other Success Initiatives?

• Corporate ergonomics website;
  – Regional contact lists
  – Standards
  – Ergonomics tips and presentations
  – Link to ergonomics database
  – Link to program documents

• Host roundtable meetings (US, Europe and Asia)
Other Success Initiatives?

• Research new ergo products and maintain approved products list
• Provide daily support to evaluators for issues such as lab set up, difficult cases, etc.
• Continue to provide training to new evaluators, regions and acquisitions as they become part of our company
Upcoming Plans

- Rollout the Office Ergonomics Program to Israel and India
- Rollout the implementation of the new Non-Office Ergonomics Program to all regions