



Puget Sound Human Factors & Ergonomics Society
2013 Occupational Ergonomics Workshop
Thursday, September 19: Schedule

7:30 a.m. – Registration, Breakfast

8:00 a.m. – Welcome

8:15 a.m. – 4:30 p.m.

Title: Manual Material Handling (MMH) Problem Solving

Description:

This workshop will provide the audience with a practical methodology for how to assess workplace manual material handling (MMH) risks, select appropriate controls and implement sustainable solutions. Emphasis will be placed on application of ACGIH TLVs, Lean principles and Participatory Ergonomics. Workshop participants are strongly encouraged to bring a photo and/or video of their current MMH problems to the workshop to use as examples, and will benefit from group and expert advice.

Speakers biography:

James Galante, EASE Council Chairman

Mr. James Galante is Director of Business Development for Southworth Products Corp., the largest manufacturer in the world of lifting and positioning equipment for material handling applications. Mr. Galante has developed his expertise in the scissors lift industry with over 45 years of experience, beginning in 1967. Mr. Galante is largely responsible for and was a principle editor of the *Ergonomic Guidelines for Manual Material Handling* and heads up the Engineering Committee responsible for the ANSI Standard MH29 – The safety standard for industrial scissors lifts and tilters. He is the immediate past Vice-Chairman on the Main Committee for ASME B20 – The safety standard for conveyors and related equipment. He is presently the Chairman for the EASE Council (Ergonomics Assist Systems Equipment) a product council of the MHI (Material Handling Industry).

Dr. Stephen Bao, SHARP, Washington State Department of Labor and Industries

Stephen Bao is certified professional ergonomist in USA (CPE) and Canada (CCPE). He is a senior ergonomist with Washington State Department of Labor and Industries. He has been doing applied ergonomics research and applications since 1985. Stephen is specialized in job assessment, physical exposure quantification and ergonomics intervention. He has been working on various ergonomics projects in many different industries around the globe.

Workshop Objectives: Attendees will learn:

- How to apply Lean principles and identify unnecessary MMH activities
- Strategies and tactics to create a Participatory Ergonomics process at their facility
- How biomechanic risks serve as a foundation of MMH ergonomics assessment tools
- How to assess MMH lifting health risk and exposures using the ACGIH TLVs for lifting
- How to assess MMH push/pull/carry risk using the WorkSafeBC online calculator
- How to sort out MMH from Assisted Materials Handling (AMH) operations at their facility
- How to choose, evaluate and re-assess MMH assist equipment targeted to the health risk and exposures identified from the lifting, pushing, pulling, and carrying assessments, using the assistance of the “Ergonomic Guidelines for Manual Material Handling”, provided by the EASE Council.

Workshop Agenda and Schedule

- 8:15 am** Review Lean principles with Cindy Williamson, Boeing
- 8:25 am** Group discussion on examples from audience on Lean
- 8:35 am** Review Participatory Ergonomics principles with Deborah Read, ErgoFit Consulting
- 8:40 am** Individual brainstorm on possible strategies and tactics to build a Participatory Ergonomics process
- 8:50 am** Review of most salient biomechanic risks that serve as the foundation of MMH ergonomic assessment tools with Dr. Stephen Bao, SHARP, Washington Department of Labor and Industries
- 9:10 am** Individual effort to draft a one-page document presenting the Natural History of WMSD and its impact in your business
- 9:25 am** **Break**
- 9:45 am** Explanation on how to use and interpret results of the ACGIH Lifting TLVs with Dr. Stephen Bao, SHARP, Wa Dept L&I
- 10:15 am** Facilitated Team Exercise: practice on how to use the ACGIH TLV for Lifting assessment tool using MMH video clips. Participants may use their own videos or a provided lifting scenario.
- 11:10 am** Explanation on how to use and interpret results of WorkSafeBC Push/Pull/Carry online calculator with Ernesto Carcamo and Rick Goggins, Washington Department of L&I, and Gary Davis, Boeing

- 11:40 am** Facilitated Team Exercise: practice on how to use the WorkSafeBC Push/Pull/Carry online calculator tool using MMH video clips. Participants may use their own videos or a provided push/pull/carry scenario.
- 12:15 am** **Lunch**
- 1:00 pm** Presentation on “The Productivity Gains of Improving the Ergonomics of Manual Material Handling” with James Galante, EASE Council Chairperson
- 1:30 pm** Facilitated Team Exercise: Devise ways to eliminate MMH activities in the case studies presented, using AMH, MH Equipment, and Lean principles. Resulting product will narrow down a list of appropriate MMH solutions to case(s) previously assessed with brief Lean justification, as well as possible obstacles or unintended consequences (plan–do–check–act).
- 2:30 pm** **Break**
- 3:00 pm** Open discussion and problem–solving of new scenarios not worked in team sessions.
- 4:00 pm** Wrap–up workshop with final comments and Q&A.