CONTROL BANDING: Is the U.S. Ready?

The NIOSH Control Banding Team -
Applying the Concepts to U.S. Small Business Industries

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NIOSH Control Banding Team

• Established prior to 2\textsuperscript{nd} International Control Banding Workshop

• All NIOSH divisions are represented

• Biweekly meetings

• Purpose: \textit{to coordinate CB activities}
  
  ✓ Internal NIOSH research coordination/collaboration
  
  ✓ NIOSH and OSHA collaboration in workplace and Global Harmonization System adaptation (R&S phrases) in U.S.
  
  ✓ U.S. Control Banding Scientific Working Group (USCBSWG) to develop a National Plan
  
  ✓ WHO/IPCS on the Global Control Banding Implementation Strategy
  
  ✓ NIOSH and HSE collaboration
NIOSH Control Banding Team

2nd International Control Banding Workshop

• Participation in planning and sponsoring
• Arranged for Training Courses
• Poster Session Topics Presented
  • Asbestos-contaminated Vermiculite
  • Beryllium
  • Butter Flavor Mixing Operations
  • Damp Building Environments
  • IDLH
  • Glutaraldehyde in Health Care Workers
  • NORA Mixed Exposures
  • Self-Assessment of Exposure
  • System Safety Similarities
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**Current Activities**

- Incorporating CB elements into current and future projects
- Critical Review document
- Partnerships
- Planning for future meeting/workshops
- Priority areas
- Training/communications
- Twinning with Developing Countries
Incorporating CB Elements into Projects

- Comparison of engineering control reports to COSHH Essentials
- Worker participation exposure assessment
- Linking of CB to Health Hazard Evaluations and follow-back studies
- Demonstration projects, e.g., glutaraldehyde in health care workers, beryllium, silica, microwave popcorn flavoring, nanotechnology, etc.
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**Critical Review document**

**Scope:**
critical review and analysis of the state of the art, validation and effectiveness of control banding

*Information Brochure:*
  Control Banding: Does it really work?
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**Partnerships**

- HSE to explore assisting and contributing to the development of control guidance sheets

- Glutaraldehyde in Health Care Workers
  
  *Dow Chemical, Kaiser Foundation Health Plan, MediSHARE Environmental Health and Safety Services, Society of Gastroenterology Nurses and Associates (SGNA), and HSE*

- State of Kentucky Safety and Health Network and Foundation

- U.S. Control Banding Scientific Working Group
  
  *ACGIH, AIHA, AMERICAN CHEMICAL COUNCIL, ASSE, CORPORATIONS, EPA, IOHA, Labor Organizations, MSHA, NSC, ORC, OSHA, (others)*

- WHO/IPCS on the Global Control Banding Implementation Strategy
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Planning for future meetings/workshops

• DOHS (Dutch Occ'l Hyg Society - NVvA) National Conference (Utrecht, Netherlands, June 13-15, 2004)

• U.S.CBSWG – Control Banding Workshop to develop a National Plan (~March 2005)

• 3rd Control Banding International Workshop in conjunction with the IOHA 2005 - Pilanesberg, South Africa (September 19-23, 2005 - http://www.saioh.org/ioha2005/) and the XVIIth World Congress on Safety and Health at Work (Orlando, FL)
Priority Areas – Demonstration Projects

- Glutaraldehyde in Health Care Workers
- Microwave Popcorn Flavorings
- Silica in mining and construction (masonry workers)
- Beryllium consultation program
- Nanotechnology
- Targeted Small Business Industries with high risks
  - Wooden Pallet manufacturing
  - Concrete Products
  - Roofing, Siding and Sheet Metal
  - Plumbing, Heating and Air Conditioning
  - Auto and Home Supply Stores
  - Eating Places
  - Offices and Clinics of Medical Doctors
Demonstration Project – Example

Glutaraldehyde in Health Care Workers

PARTNERS

NIOSH
Dow Chemical
Kaiser Foundation Health Plan
MediSHARE Environmental Health and Safety Services,
Society of Gastroenterology Nurses and Associates (SGNA)
HSE
GLUTARALDEHYDE MARKET SEGMENT USES
(based on volume sold)

High level disinfection and other health care applications

Glutaraldehyde–induced health effects occur almost exclusively in this application

75%

Non-biocidal uses (e.g., cross-linker in leather tanning, embalming fluids, etc.)

15%

Process water and materials protection uses, pesticide
Control Banding and Glutaraldehyde

Glutaraldehyde
(R42/43 – sensitization)
Identify & Engage key stakeholders

Information supply chain
1. Manufacturer of the active disinfectant (label, MSDS, tech sheets, use/handling, spill/emergency procedures, engineering advice, training)
2. Formulator of product (label, MSDS, tech sheets, use/handling, spill/emergency procedures, engineering advice, training)
3. User (understanding)

Things that can go amiss
1. Transmission of data (from one level to another)
2. Interpretation/understanding of data
3. Action based upon data received
4. Training
GLUTARALDEHYDE ISSUES

• Where do you go to get information on using glutaraldehyde?
• Site visits (best/worst control scenarios) to prioritize
• Develop segmented exposure groups for draft CB documents
• Critique draft CB documents for information gaps/workability (audience participation)
• Feedback on process/utility of CB approach (questionnaire)
DATA COLLECTION

- Determine how glutaraldehyde is used for similar exposure groups
  - Field trips
  - Exposure data
  - Facility types (large vs. small)

- Identify effective controls currently in use

- Identify ineffective practices

- **Segment** according to degree and frequency of exposure

- Identify group for pilot testing control banding documents

- Expand/supplement guidance for “Special Case” of COSHH Essentials
Endoscopy Nurses
(Scope Disinfection)

Manual Processing
- Workplace access
- Design & Equipment
- Procedures
- Special Care
- Cleaning & Housekeeping
- PPE
- Health Surveillance
- Training
- Supervision
- Employee Checklist
- Additional Information

Automatic Processing

Spill Response and Clean-up

Next Stages

PPE
Transfer & Disposal
Architectural Design
Principles of Product Stewardship, Responsible Care ® and regulatory compliance require:

- Receipt by the user of appropriate information to protect health
- Development of EH&S guidance that is understandable and easily available

In addition to legal compliance requirements, e.g., MSDS

- Development of appropriate Control Banding Guidance sheets (per use and per chemical if necessary) for incorporation in Chemical Essentials
- Supporting the International Control Banding approach
- Promotion of the distribution, use and explanation of Guidance Sheets
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**WHY FORM A PARTNERSHIP?**

- NIOSH/HSE gains practical experience in performing Control Banding research and partnering.
- Dow Chemical extends responsible care beyond manufacturing to its distributors & final customers.
- Kaiser Foundation distributes extensive knowledge base in glutaraldehyde controls.
- Endoscopy nurses and staff experience reduction in exposure to glutaraldehyde.
- Partnership experience provides guidance for future efforts in control banding and alliances.
Training and Communications

- HSE COSHH Essentials training at NIOSH following 2nd International Control Banding Workshop
- GTZ Chemical Management training at ACGIH Technical Center (NIOSH sponsored)
- DVD Training on Glutaraldehyde exposures in the Health Care
- Control Guidance Sheets on Glutaraldehyde exposures in Health Care
- NIOSH web site
- List serve
- CD-ROM of 1st and 2nd International Control Banding Workshops with critical evaluations and reference materials
- Training PowerPoint slide show for local presentations
Twinning with Developing Countries

• TBA?

• To be discussed at Dutch Occ'l Hyg Society National Conference, June 13-15, 2004
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