Mining Breakout Overview and Introduction

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PPT Stakeholders Meeting

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Presentation Structure

PPT in Mining

NPPTL in PPT

Today’s Mining Breakout Session
PPE in Mining

- 1556 De Re Metallica
  - Georgius Agricola

- The definitive text on mining for over 100 years
- Miners using primitive forms of “respirators”
In This Country

- 1969 Coal Mine Safety Act

- An enforceable nationwide standard for mine safety practice.
## NIOSH Program Portfolio

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<th>NORA / NIOSH Industry Sectors (9)</th>
<th>NIOSH Cross Sector Programs (24)</th>
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<td>• Agriculture, forestry, and fishing</td>
<td>• Immune, dermal and infectious diseases</td>
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<tr>
<td>• Construction</td>
<td>• Musculoskeletal disorders</td>
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<td>• Mining</td>
<td>• Radiation dose reconstruction</td>
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<td>• Healthcare and social assistance</td>
<td>• Training grants</td>
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<td>• Public Safety</td>
<td>• Work organization and stress-related disorders</td>
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<td>• Manufacturing</td>
<td>• Economics</td>
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<td>• Services</td>
<td>• Exposure assessment</td>
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<td>• Transportation, warehousing, and utilities</td>
<td>• Engineering controls</td>
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<td>• Wholesale and retail trade</td>
<td>• Worklife initiative</td>
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<td>• Occupational health disparities</td>
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<td>• Small business assistance and outreach</td>
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<td>• Surveillance</td>
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<td>• Nanotechnology</td>
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<td>• Prevention through design</td>
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<td>• Personal Protective Technology (PPT)</td>
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<td>• Health hazard evaluation (HHE)</td>
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<td>• Hearing loss prevention</td>
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<td>• Respiratory diseases</td>
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<td>• Traumatic injury</td>
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<td>• Authoritative recommendations development</td>
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<td>• Cancer, reproductive, and cardiovascular diseases</td>
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<td>• Communications and information dissemination</td>
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<td>• Emergency preparedness and response</td>
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<td>• Global collaborations</td>
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NIOSH Divisions & Laboratories

- Office of the Director, NIOSH
- National Personal Protective Technology Laboratory (NPPTL)
- Office of Mine Safety and Health Research
- Office of Extramural Programs
- Division of Respiratory Disease Studies (DRDS)
- Division of Safety Research (DSR)
- Health Effects Laboratory Division (HELD)
- Education and Information Division (EID)
- Division of Applied Research and Technology (DART)
- Division of Surveillance Hazard Evaluation and Field Studies (DSHEFS)
- Division of Compensation Analysis and Support (DCAS)
- Research to Practice (r2p)
- Spokane Research Laboratory
An estimated 20 million workers use PPE on a regular basis to protect themselves from job hazards.
PPT Program Strategic Goals

• Reduce exposure to inhalation hazards

• Reduce exposure to dermal hazards

• Reduce exposure to injury hazards

• Broad-based PPT issues
PPT Program Activities

PPT Program Management
- Scientific evaluations
- Program evaluations
- Emergency response

Technology Evaluation
- Respirator Certification Program
- Quality Audit Program
- Certified Product Investigations
- Long Term Field Evaluation Program

Policy & Standards Development
- Enhancements to 42 CFR Part 84
- CBRN respirator standards development
- Consensus standard development
- Guidance Document Development

Technology Research
- Respiratory Protection
- Protective Clothing & Ensembles
- Integration of Sensors & Electronics
- Human Performance
- Fall Protection
- Hearing Protection

Surveillance and Communications
- Outreach
- Surveillance
- Health Communications
- Web management
Participate in policy development and standards across all types of PPT

Impact

- Research conducted to support five updates to 42 CFR Part 84
- PPT Program research and subject matter expertise contributed to three ASTM standards
- PPT Program research and subject matter expertise contributed to two NFPA standards
Participate in policy development and standards across all types of PPT

Progress

• Developed and published strategy for proposed changes to 42 CFR Part 84 in DHHS regulatory agenda in spring 2011

• Conducted six public meetings to solicit input to regulatory updates

• Established collaborative agreements with six external partners
Today

- SCSR Capacity
- Physiologic Aspects of Switching SCSRs in an IDLH Atmosphere
- Cryogenic Life Support System
- Smart SCBA
- Future Technologies for Breathing Air Supplies
- Novel Knee Protection for Miners
- Clear, Sensible, Effective SCSR Training: For a New, High-Performance Device, Information Design Augments Safety and Useability
- Light-emitting Diode (LED) Cap Lamp Research
- Draeger SCSR/SCBA Mining System
Quality Partnerships Enhance Worker Safety & Health

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Thank you

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