MSHA’s 15 / 50

Injury Rate Reduction Goals

United States Department of Labor
Mine Safety and Health Administration
Goals Established in 2001

- Based on FY 2000 Statistics
- Target FY 2008, with annual milestones

- **Fatal Injuries Rate: 15% Decrease**
- **All-Injury Rate: 50% Decrease**

- Fatal Injury Target Refined in 2004
  - Set a more ambitious goal
  - Aimed for lower edge of fatal trend band

Safety and Health are Values
FY 2005 Evaluation for Metal and Nonmetal Mines Fatal Incidence Rates
(Includes Contractors)

October 2004 - June 2005

FY 2005 Goal: 15% reduction from the FY03 Baseline by FY 2008.

Fatal Injuries Per 200,000 Hours Worked

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Rate</td>
<td>.0266</td>
<td>.0336</td>
<td>.0237</td>
<td>.0233</td>
<td>.0241</td>
<td>.0230</td>
<td>.0242</td>
<td>.0241</td>
<td>.0225</td>
<td>.0208</td>
<td>.0241</td>
<td>.0248</td>
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<td>.0201</td>
<td>.0176</td>
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Safety and Health are Values
FY 2005 Evaluation for Metal and Nonmetal Mines Fatal Incidence Rates
(Includes Contractors)

October 2004 - June 2005

FY 2005 Goal: 15% reduction from the FY03 Baseline by FY 2008.

Fatal Injuries Per 200,000 Hours Worked

Qtrs. 1-3

Fatal Injury Rate 1986 - 2005

Safety and Health are Values
Fatal Injury Rate 1986 - 2005

Safety and Health are Values
All-Injury Rate 1986 - 2000

Injuries Per 200,000 Hours Worked


Qtrs. 1-3 2005 target 2005 Qtrs. 1-3

All Injury IR MNM Mines 4.79 5.89 7.36 8.01 6.83 6.30 5.93 5.78 5.39 4.94 4.79 4.75 4.48 4.38 4.07 3.90 3.68 3.51 2.97 3.43

FY 2000 = Baseline

Goals:
- 1986: 7.36
- 1995: 5.39
- 2000: 4.38

1988: 7.36
1996: 5.39

FY 2005 Evaluation for Metal and Nonmetal Mines

All Injury Incidence Rate (Degrees 1-6) Including Contractors

October 2004 - June 2005

Goal: 50% reduction from the FY 2000 Baseline by FY 2008

Injuries Per 200,000 Hours Worked

All Injury Rate 1986 - 2005

Safety and Health are Values
Triangle of Success

EDUCATION Compliance Assistance

TECHNICAL SUPPORT Compliance Assistance

ENFORCEMENT Compliance Assistance

SUCCESS

United States Department of Labor
Mine Safety and Health Administration
## Inspections and Citations

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Mines Reporting Employment</th>
<th>Million Hours Reported</th>
<th>Inspection Completion Rate %</th>
<th>Citations, Orders &amp; Notices</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>12,289</td>
<td>377.2</td>
<td>73.7</td>
<td>61,875</td>
</tr>
<tr>
<td>2001</td>
<td>12,479</td>
<td>362.4</td>
<td>75.3</td>
<td>58,269</td>
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<tr>
<td>2002</td>
<td>12,455</td>
<td>343.1</td>
<td>87.6</td>
<td>48,502</td>
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<tr>
<td>2003</td>
<td>12,419</td>
<td>337.2</td>
<td>87.4</td>
<td>53,158</td>
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<tr>
<td>2004</td>
<td>12,467</td>
<td>346.3</td>
<td>90.2</td>
<td>56,636</td>
</tr>
<tr>
<td>2005 YTD **</td>
<td>11,790</td>
<td>172.2</td>
<td>****</td>
<td>37,821</td>
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</tbody>
</table>

*Safety and Health are Values*
Inspector Selection Process

• One-third eligible to retire now

• Competency-based recruitment
  – Influencing, negotiating, teaching
  – Planning & evaluating, problem solving

• Changed from nationwide hiring register to regional job fairs
  – Pre-screen applicants: math & writing tests
  – Hiring team conducts personal interviews
  – On-the-spot job offers

Safety and Health are Values
Inspector Training

- Individual Development Plans (new inspectors)
  - 2-year internship program...
  - Based on inspector Job Task Analysis
  - Links classroom training with...
  - On-the-Job training at mine sites
  - Objectives set and performance assessed

- Continuing Education (jouneymen)
  - Formal: 80 hours every 2 years at Mine Academy
    - Sessions and materials evaluated by HQ
    - Restructured for maximum relevancy
  - In-house: approx. 40 hours by field office & district
  - Ad hoc: at mines, seminars & conferences

Safety and Health are Values
Metal and Nonmetal Districts
# Fatal Accidents

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Total Fatal Accidents</th>
<th>Operator Fatal Acc.</th>
<th>Contractor Fatal Acc.</th>
<th>Operator % Fatal Acc.</th>
<th>Fatal Acc. Inc. Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>47</td>
<td>36</td>
<td>11</td>
<td>77 %</td>
<td>0.019</td>
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<tr>
<td>2001</td>
<td>30</td>
<td>20</td>
<td>10</td>
<td>67 %</td>
<td>0.011</td>
</tr>
<tr>
<td>2002</td>
<td>42</td>
<td>35</td>
<td>7</td>
<td>83 %</td>
<td>0.020</td>
</tr>
<tr>
<td>2003</td>
<td>26</td>
<td>22</td>
<td>4</td>
<td>85 %</td>
<td>0.013</td>
</tr>
<tr>
<td>2004</td>
<td>27</td>
<td>19</td>
<td>8</td>
<td>70 %</td>
<td>0.011</td>
</tr>
<tr>
<td>2005 YTD **</td>
<td>25</td>
<td>22</td>
<td>3</td>
<td>88 %</td>
<td>0.022</td>
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</table>

Safety and Health are Values
## Operator Nonfatal Accidents

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Operator NFDL Acc.</th>
<th>Operator NFDL IR</th>
<th>Operator NDL Acc.</th>
<th>Operator NDL IR</th>
<th>Operator Total IR</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>5,527</td>
<td>2.93</td>
<td>3,096</td>
<td>1.64</td>
<td>4.59</td>
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<tr>
<td>2001</td>
<td>5,011</td>
<td>2.77</td>
<td>2,724</td>
<td>1.50</td>
<td>4.28</td>
</tr>
<tr>
<td>2002</td>
<td>4,543</td>
<td>2.65</td>
<td>2,269</td>
<td>1.32</td>
<td>3.99</td>
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<tr>
<td>2003</td>
<td>4,326</td>
<td>2.57</td>
<td>2,059</td>
<td>1.22</td>
<td>3.80</td>
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<td>2004</td>
<td>4,204</td>
<td>2.43</td>
<td>2,140</td>
<td>1.24</td>
<td>3.67</td>
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<tr>
<td>2005 YTD **</td>
<td>2,684</td>
<td>3.12</td>
<td>1,265</td>
<td>1.47</td>
<td>4.61</td>
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*Safety and Health are Values*
## Contractor Nonfatal Accidents

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Contractor NFDL Accidents</th>
<th>Contractor NDL Accidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>572</td>
<td>358</td>
</tr>
<tr>
<td>2001</td>
<td>395</td>
<td>289</td>
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<tr>
<td>2002</td>
<td>323</td>
<td>197</td>
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<td>2003</td>
<td>261</td>
<td>210</td>
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<tr>
<td>2004</td>
<td>369</td>
<td>236</td>
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<tr>
<td>2005</td>
<td>261</td>
<td>182</td>
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</table>

YTD **

*Safety and Health are Values*
Compliance Assistance

• Industry & Labor Alliances
• Cooperative Assistance
• Training
• Newsletters and Calendars
• Mine Visits (non-enforcement)
• Web Casts
• Best Practices

Safety and Health are Values
Alliances and Partnerships

• Trade Associations
  – National Stone, Sand & Gravel Assoc.
  – Industrial Minerals Assoc. of No. America
  – National Mining Assoc. & Bituminous Coal Operators Assoc.

• Labor Organizations
  – Intl. Union of Operating Engineers
  – Intl. Assoc. of Bridge, Structural, Ornamental & Reinforcing Ironworkers

Safety and Health are Values
Alliances & Partnerships, Cont’d

• Professional Societies
  – National Safety Council
  – American Society Of Safety Engineers

• Partnerships
  – The Gypsum Association
  – National Lime Association

Safety and Health are Values
**Alliance Activities**

*NSSGA Example*

- Data mining for injury analysis & trends
- Model Safety Program development
- Training resources production
  - Junkyard Guards DVD (100% miners)
  - Highwall safety videos
- Operators’ “15/50 Safety Pledge” to reduce injuries
- Atlantic Alliance
Cooperative Assistance

• C.A.R.E.
  Cooperative Accident Reduction Effort
  – Selected mines receive in-depth assistance
  – Selection based on injury incidence rate & violation history
  – Additional on-site visits
  – Accident & illness reviews
  – Aid improving safety management systems

Safety and Health are Values
Cooperative Assistance

• Small Mines Office
  – There are 6600 mines with 5 or less miners
  – Benefits to mine
    • Safety is good business
    • Lower costs, more efficient operation
    • Regulatory compliance
  – Mine visits (non-enforcement)
  – Help identify hazards
  – Improve Safety & Health program
  – Provide training & technical support
  – Weekly prepared “Tool Box Talks”

Safety and Health are Values
MSHA-- Initiatives

• Make the Right Decision
  – Joint Metal & Nonmetal and Coal effort
  – Hazard Recognition and Risk Reduction
  – Focuses on human factors (decision-making)
  – S.L.A.M. – for miners:
    • Stop – Look – Analyze - Manage
  – S.M.A.R.T. – for mine operators & managers
    • Stop – Measure – Act – Review - Train

Safety and Health are Values
Mine Partnership Agreements

• “Zero” injuries & illnesses are achievable goals
• Commitment to Risk Analysis process
• Sharing Best Practices
• Embrace *Training Makes a Difference* values
• Safety & Health seminars / conferences
• Set incremental goals to improve

*Safety and Health are Values*
Mine Partnerships

- Participate in Professional Miner Program
- Cooperative sharing of resources
  - Technical Support, Mine Academy, EFS
- Resolve citations at close-out sessions
- Special accident reduction & outreach
- Improve mine rescue capabilities
- In-person meetings between mine management and MSHA District Manager

Safety and Health are Values
Miner Training

• Job Task Analyses
  – Using “Mine Manager” software, available to mine
  – Improves production, maintenance and safety

• Web-based distance learning
  – Uses National Guard’s facilities on weekdays

• Mobile electrical training trailers (2)

• Personal Protective Equipment
  – “Let’s Get It On!” program
  – 3-year inspector-driven awareness program
  – Posters, pamphlets, stickers

Safety and Health are Values
Miner Training

• Training Makes a Difference (TMD)
  – EFS: Educational Field Services (on-site)
  – Analysis & improvement of safety management program
  – In-depth training plan & resource assistance

• Training Materials
  – Ex.: Equipment guarding suite of products
    • Handbook
    • Equipment Guarding DVD (detailed how-to)
    • Junkyard Guards (miners solve guard problems)

Safety and Health are Values
Communication

• Walk-and-Talk Mine Visits
  – Supervisory injuries and fatalities
  – Leadership and role modeling
  – Maintenance safety

• Spring Thaw Workshops
  – Joint effort: MSHA & Mining Industry
  – Share information & expertise w/ area mines
  – 2005: 49 workshops in 40 states

Safety and Health are Values
Communication

• Hazard Alerts
  – Maintenance work - PPE
  – Contractors - Seasonal hazards

• Quarterly Newsletters: web-based
  – Safety success stories - Accident reduction
  – Training products - Mine rescue contests

Safety and Health are Values
Communication

• Web Casts
  – Internet & phone-based stakeholder meetings
    • “Speak Out and Make a Difference”
    • “Industry Needs U in the Middle to Reduce Fatalities”
    • “Building Blocks of Safety”; “Safety Values”

• Pocket Safety Calendars
  – Useful tips
  – Reminders
  – Tool to document safety inspections and workplace examinations

Safety and Health are Values
Communication

- Conferences, Papers & Presentations
  - Mine Rescue Contests
  - American Society of Safety Engineers
  - World Safety Congress
  - Atlantic Alliance
  - Regional and Industry Segment Meetings
  - Best Practices
    - Shared by “Sentinels of Safety” Winners
  - Coming: Regional MSHA Conferences

Safety and Health are Values