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SAFETY METRICS: So Why Keep This Data?



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Golden, CO
May 7, 2009

Learning Objectives




Understand

- ✓ Who & What is MACTEC?
- ✓ What are Safety Metrics
- ✓ Why We Should Keep Such Data
- ✓ Examples of Various Safety Metrics
 - Leading
 - Trailing

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Safety Metrics

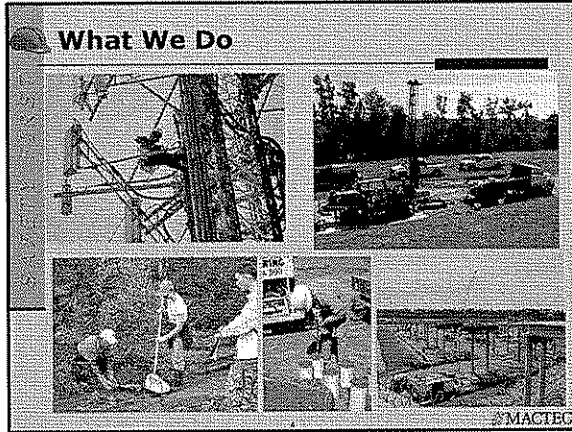


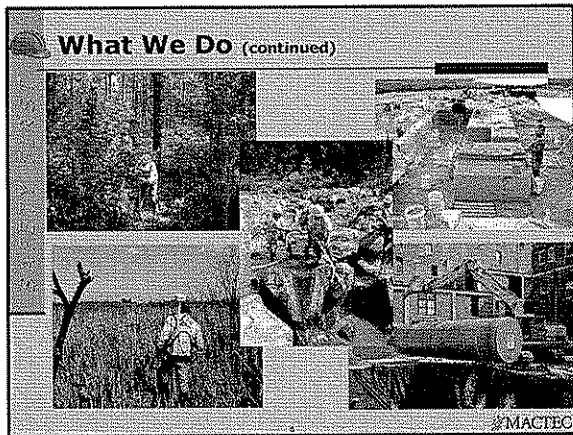
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Operational Divisions

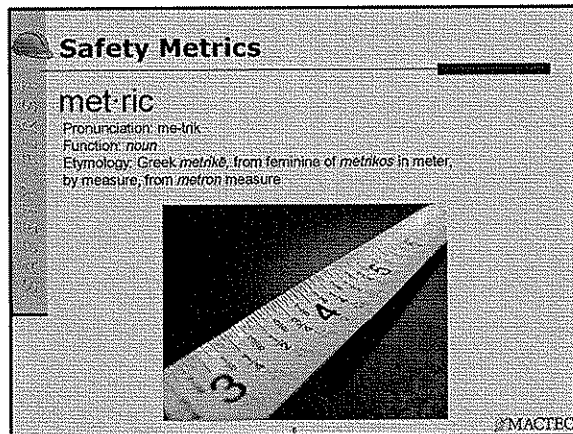
Region	Operational Divisions
North America	Alaska, Arkansas, Colorado, Connecticut, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming
Europe	Belgium, France, Germany, Italy, Netherlands, Spain, Sweden, Switzerland, United Kingdom
Asia	China, India, Japan, Korea, Singapore, Taiwan, Thailand
Australia	Queensland, New South Wales, Victoria, Western Australia

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Safety Metrics – Why Do We Need Them?

- What is the purpose of tracking **safety metrics**?
- What do you want to accomplish by tracking **safety metrics**?
- Apart from safety professionals, who else within your organization should care about **safety metrics**?

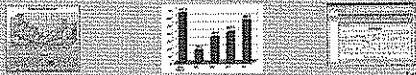


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Safety Metrics

Five Steps of Using Safety Metrics:


- Helps define & align enterprise strategy
- Develops specific performance goals
- Collect, analysis and manage data
- Establishes reporting process
- Used as a drivers for decision makers



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Safety Metrics - Defining


- Based on Mission, Vision and Values Statements
- Operating units must align to these
- All employees are aware of enterprise's strategy
- Buy-in and support from highest levels of enterprise



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Safety Metrics - Develop


- Source of data must be reliable documenting
 - Outcomes
 - Strategies such as how corrective actions / audits, etc. are reported
- Metrics collection must have a process
- Goals and measurement process supported by senior management



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Safety Metrics - Collecting / Managing


- Questions to ask yourself regarding this process:
 - ✓ Is data burden worth the effort to collect?
 - ✓ Can data be validated and verified?
 - ✓ Have sources of data been identified and time frames established?



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Safety Metrics - Enhancing Performance


- Provides "real time" information to management
 - Front Line and Senior
- Established system to distribute metrics and analysis of data
- Uses credible benchmarks for comparison



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Safety Metrics – Drivers for Change

- Results support budget and people
- Results can enhance or degrade compensation of decision makers
- Results provide indicators where changes needs to be made




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Safety Metrics

Trailing Indicators

Measuring "Up-Safety"
Measuring "Safety Failure"




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Safety Metrics

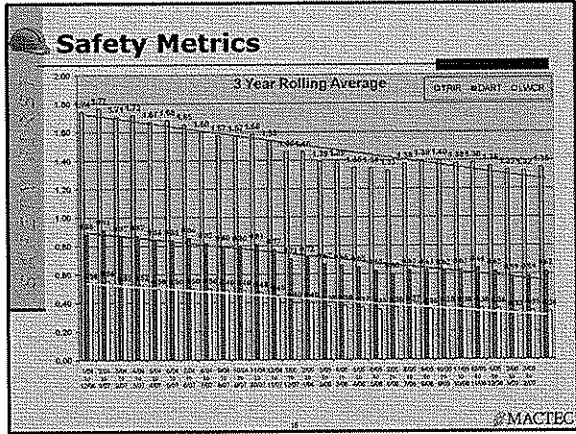
Trailing Indicators:

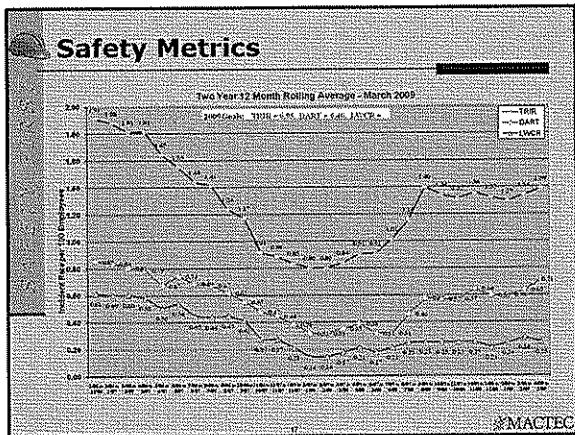
- Total Recordable Incident Rate (TRIR)
- Days Away, Restricted or Transferred (DART) Rate
- Lost Work Case Rate (LWCR)
- Severity Rate
- Incident Causes
- Part of Body Injured
- Job duties resulting in Injury/Illness
- Property Damage Frequency Rate
- Workers' Compensation Costs
- Incident Reports for Recordables, Vehicle crashes and Property Loss
- Corrective Actions Taken Post Incident

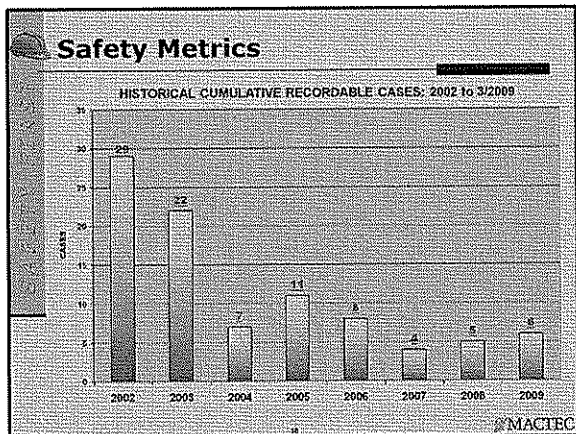


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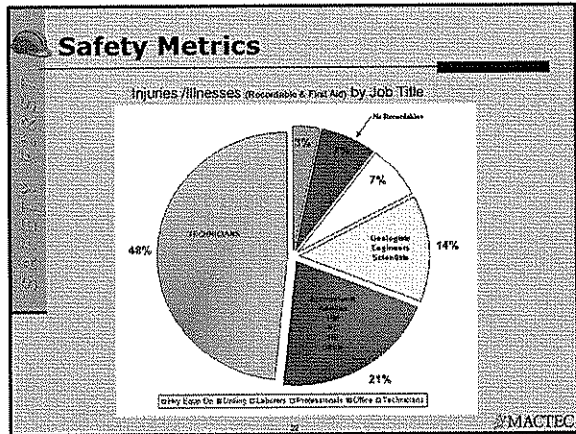
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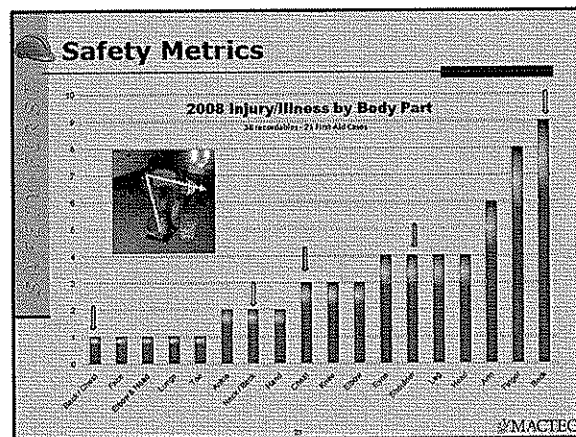


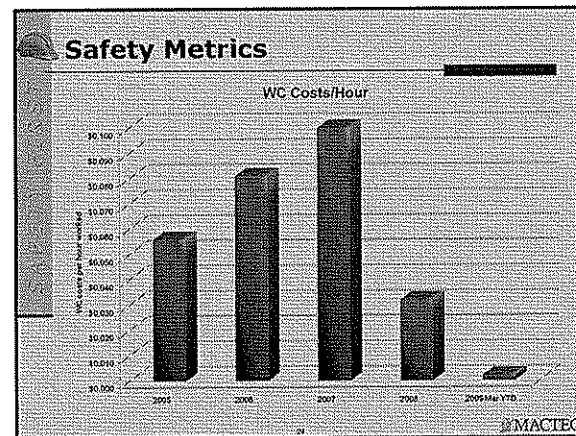




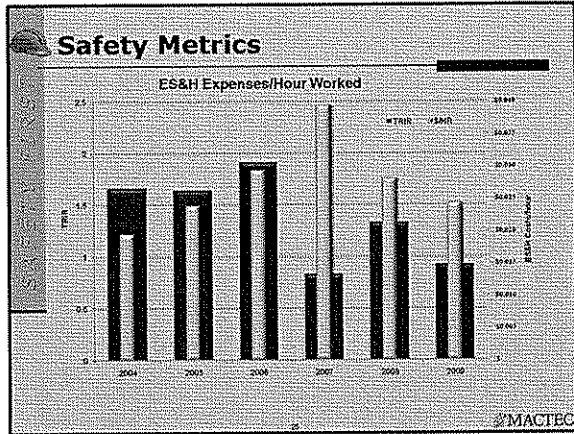
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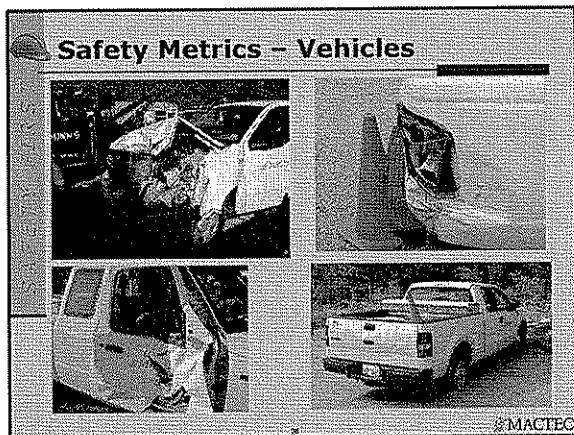


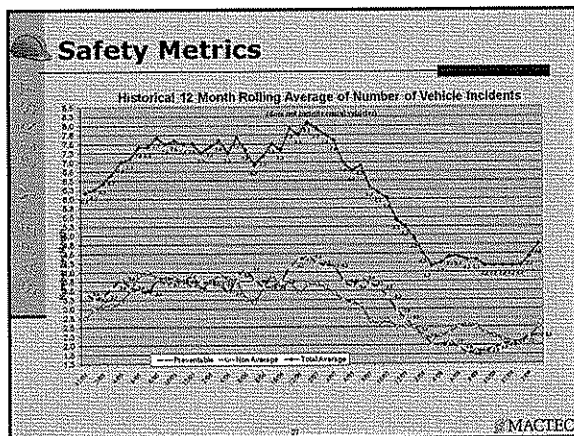




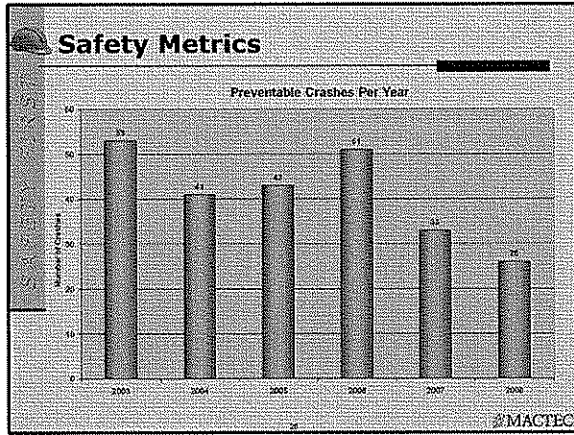
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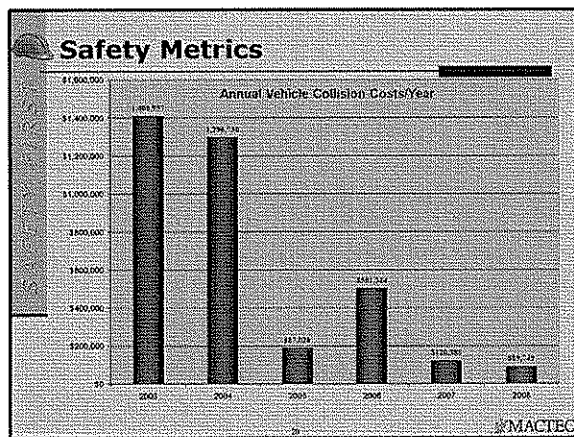


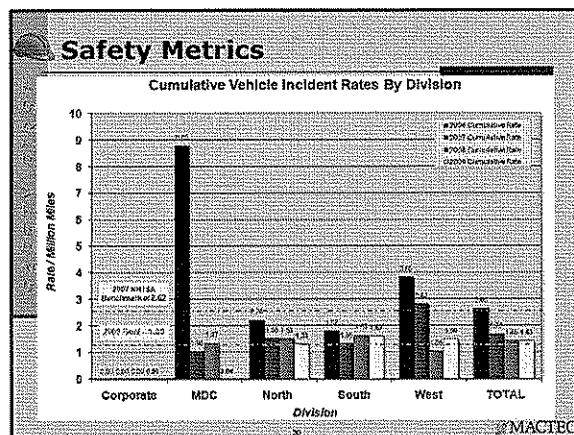


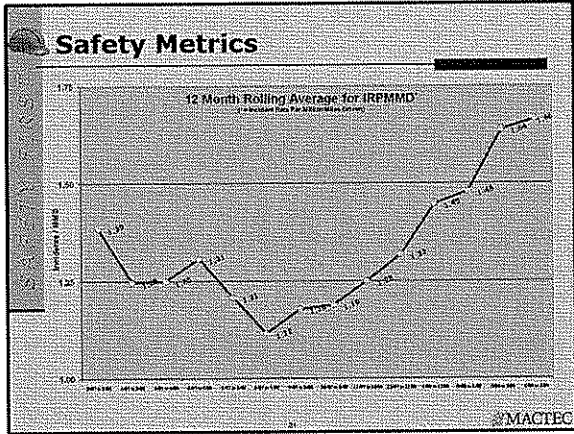


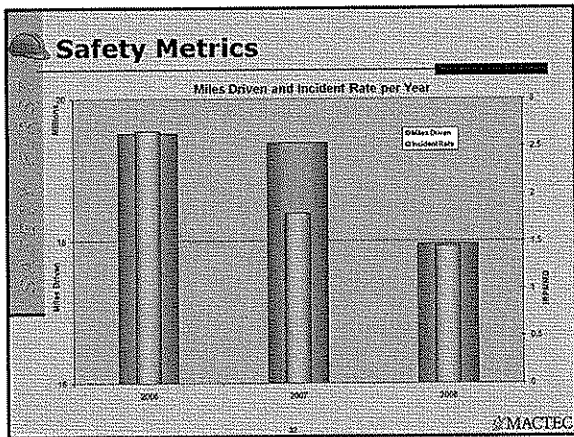
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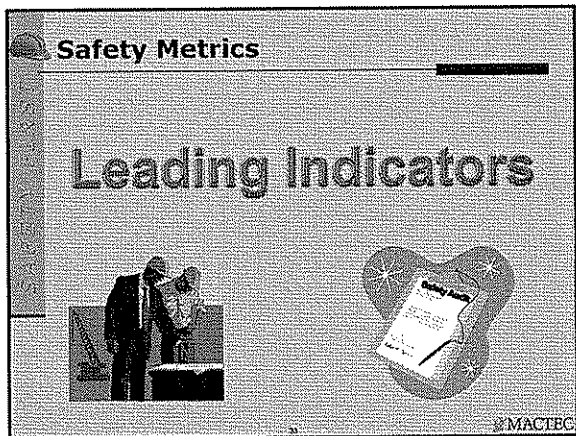




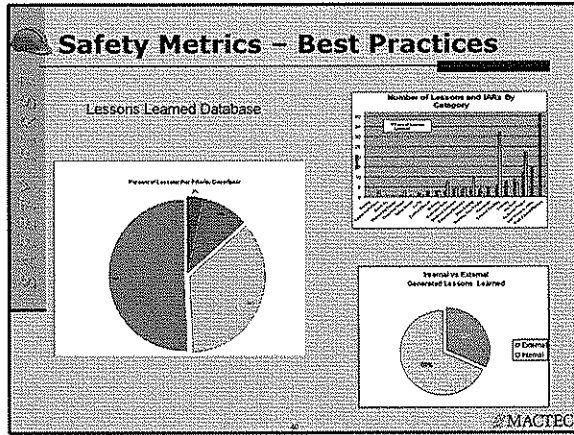


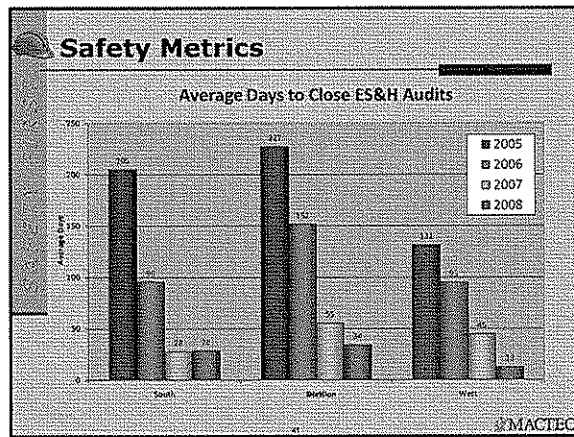


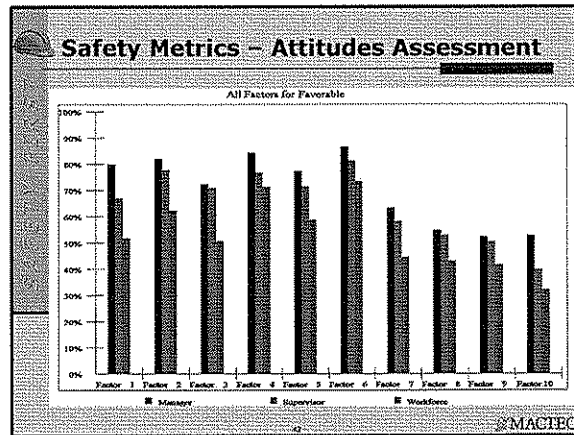


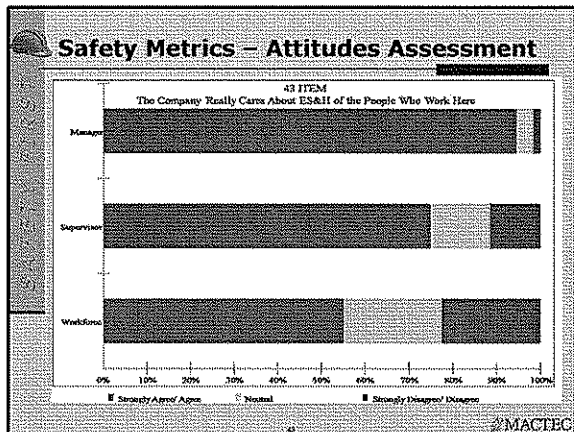


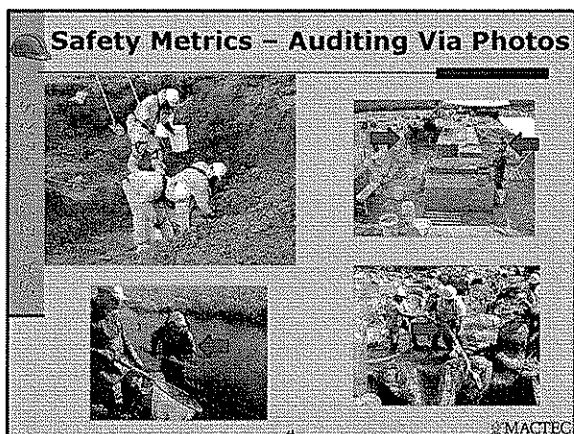
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Safety Metrics – Vehicles

Event Recorder

- ✓ Card Reader facilitates driver identification
- ✓ Mileage and speed data
- ✓ Inertia Trigger – 10 second clip
- ✓ Over-speed capability
- ✓ Upload via cellular technology
- ✓ Managed Services for analysis
- ✓ Coaching by supervisors
- ✓ Three-strikes approach for cell phone use or failing to use seatbelts

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