OSC|12
Ohio Safety Congress & Expo

WELL AT HOME. SAFE AT WORK.

486 Lessons Learned from a Real World Journey: The McWane Story

Barbara J. Wisniewski, CIH, CSP, CPEA

Thursday, March 29, 3:45 to 4:45 p.m.

Ohio | Bureau of Workers' Compensation

The McWane Story

Lessons Learned From A Real World Journey: Overcoming the Odds to EHS Excellence - The McWane Story

Ohio Safety Congress 2012

March 29, 2012

Barbara J. Wisniewski, CIH, CSP, CPEA
McWane, Inc. Vice President Health & Safety

The New York Times

Pipe Maker Is Fined Over Safety Violation

An Indifference to Life

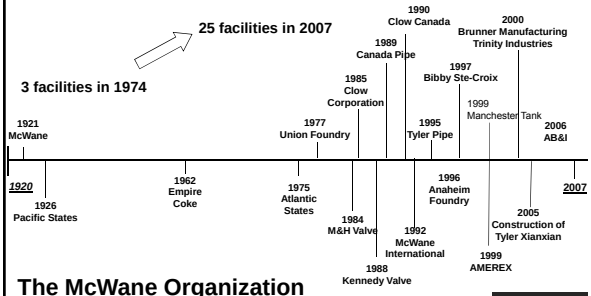
The Rest of the Story

(What you didn't read in *The New York Times)*

Who is McWane?

- Family owned business founded in Birmingham, AL in 1921.
- We employ 6,000 people at 25 plants worldwide.
- Leading provider of water, sanitation, and fire safety infrastructure products to nearly every state in the nation and a new entrant into the electrical utility business.

History of Dramatic Growth



The McWane Organization

The McWane We Are Today!

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Reduced Injury Rates

- **US Facilities since 2002:**
  - TRIR (Total Recordable Incident Rate): **63.6%** ⇩
  - DART (Days Away/Restriction/Transfer) : **60.2%** ⇩
  - DAFW (Days Away From Work): **56.3%** ⇩
- **Foundries:**
  - At YE 2006, 2007, 2008, 2009, 2010, and 2011:
    < Industry Average in TRIR, DART, DAFW rates

McWane's Voluntary Protection Program (VPP) Status

- Star Sites
  - Manchester Tank, Petersburg, VA
  - Manchester Tank, Elkhart, IN
  - Clow Valve Metal Casting Facility, Oskaloosa, IA
  - Clow Water Systems, Coshocton, OH
  - Tyler Coupling, Marshfield, MO
- Merit Sites
  - Pacific States Cast Iron Pipe, Provo, UT
  - Clow Valve Machine Shop, Oskaloosa, IA

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2009 National Ergo Cup Winner

- Clow Valve Facility -- Applied Ergonomics Conference
- Over 35 companies competed including Boeing Company, Bridgestone/Firestone, General Electric, Honda and Johnson & Johnson
- Awarded for outstanding achievement in reducing ergonomic issues through engineering solutions

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Pipe Manufacturing Process

Step One: 100% recycled scrap iron & steel

Over 750,000 tons of scrap iron recycled/ year
800,000 cars/ year -- about 1.5 every minute, every day!

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Pipe Manufacturing Process

Step Two: Melting of scrap iron in cupola

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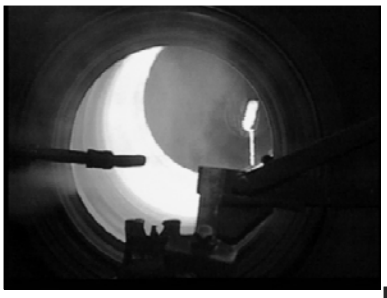
Pipe Manufacturing Process

Step Three: Casting Mold forms the pipe



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Pipe Manufacturing Process

Molded Pipe

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Pipe Manufacturing Process

Step Four: Annealing (heat treatment) to optimize strength and ductility

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Pipe Manufacturing Process

Step Five: Finishing-Grinding

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Pipe Manufacturing Process

Step Six: Cement Lining and Coating

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Pipe Manufacturing Process

Step Seven: Painting & Inspection

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Pipe Manufacturing Process

Step Eight: Transport

McWane President's EHS Vision

- Recognized leader in EHS with
  - ✓ Best in Class EHS Programs
  - ✓ Beyond compliance expectations
  - ✓ Management commitment with employee involvement

McWane, Inc. is committed to upholding the following principles in all of our business activities:

- **Compliance:** We will manage our business activities to meet all government laws and regulations as well as internally established environmental, health, and safety requirements. Our goal is 100% compliance, 100% of the time.
- **Protection:** We will conduct our activities in a responsible manner to protect our employees, the public, and the environment, and to minimize impacts from our operations.
- **Continuous Improvement:** We will strive to continually improve our environmental, health, and safety performance.

Key Elements of the McWane Turn-Around

1. Increased Expertise – External & Internal
2. Accelerated Employee Engagement-Based Culture
3. Established Comprehensive, Web-based EHS Management System
4. Developed Collaboration with Human Resources
5. Enhanced Communications & Relationship Building

External Expertise

- Individual Health & Safety Consultants
  - Pat Tyson, et al.
    (Former Acting Asst. Sec. of Labor for OSHA, and former Chairman of Board of Directors for National Safety Council)
  - John Henshaw
    (Former Asst. Sec. of Labor for OSHA)
  - Former OSHA Area Directors
    (Cincinnati, Atlanta, Toledo offices)
- Company Consultants
  - American Foundry Society
  - NATLSCO (now Bureau Veritas)
  - ESIS
  - SouthStar Risk Consulting, LLC

Internal Expertise

- Facility EHS Staff Changes
  - Over 85 new HS positions since 1999
  - Over 35 new Environmental positions since 1999
  - Upgraded hiring qualifications for facility safety managers
  - 17 new CSPs in the organization
- Changed reporting relationship to most senior manager on site

2. Employee Engagement-Based Culture

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Employee Engagement

Engagement – not Involvement.

Safety not as a condition of employment – but as a corporate **VALUE**.

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Culture Change Concepts

- Ethics and Compliance
- Health & Safety Values
- Strong Corporate Oversight
- Accountability & Responsibility for Every Employee
- Beyond Regulatory Compliance Expectations
- Cascading Goals & Objectives
- Performance Metric Tracking & Reporting
- Systems Approach to EHS

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Cultural Change – Ethics & Compliance

- Enhanced Policy
  - EHS
  - HR
  - Conflict of Interest
  - Confidential Information
  - Recording & Reporting Information
  - Taxes
  - Purchased Goods & Services
  - Contractors & Consultants

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Culture Change - Values

We must demonstrate through our words and deeds, that we believe:

- EHS is a core value on par with production and quality.
- All injuries, illnesses and environmental incidents can be prevented; zero injuries is achievable.
- Housekeeping is a visible barometer of EHS performance (Japanese 5S Program).
- Best-in-class EHS status is obtained through continuous improvement.
- VPP is achievable for McWane.
- "The McWane Way ... Do it Safely, or Not At All."

Cultural Change – Corporate Oversight

- Roles & Responsibility Document
- Organizational Change for Group Directors
- Transparency through EHS website & Sharepoint
- Monthly Performance Tracking & Reporting
- Corporate Auditing
  - Compliance & System based
- Increased Corporate Visits

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Cultural Change - Accountability

- Establishment of McWane University

  Executive leadership, managers, supervisors from different divisions exchange ideas and develop new ways to work together
- Topics Include:
  - Business Overview/Company History
  - McWane Philosophy & Values
  - Principles of Conduct
  - Ethics & Compliance
  - EHS as a Value

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Cultural Change - Accountability

- EHS brochure distributed to all employees, with sign-off
- EHS included in mgmt. annual performance appraisal evaluations and ratings
  - Pro-active, leading EHS objectives required for all supervisors & managers
  - Penalties on bonuses of up to $35,000 for non-performance (high end of industry norms)
- Annual Compliance Assurance Letter

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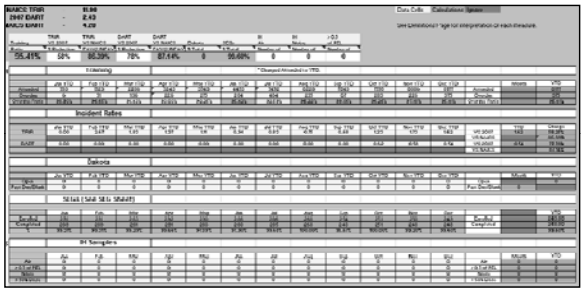
Cultural Change –Performance Metrics



- Injury/Illness Reduction Plans
- Training Completion
- Corrective Action Closure
- Medgate® Usage
- Medical Requirements
- Industrial Hygiene Sampling

Cultural Change - Employee Engagement

- USWA Agreement
  - McWane-USWA 40 Hr. Training Program
    - OSHA 30 Hr. Course & 10 Hr. Course on Roles & Responsibilities
- Joint Labor/Management Safety Committee
  - Agenda criteria
  - Posting of minutes
- Facility Departmental Safety Representatives (hourly employees)
  - Participate in HS Activities
  - Act as liaison regarding HS issues and concerns

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Cultural Change - Employee Engagement

- Other Committee Opportunities
  - Machine Guarding
  - Ergonomics
  - VPP Process
- Safety Alert Initiation
- Inspection Participation
- Audit Participation
- JSA Development & Reviews
- New Equipment Design Reviews
- Training Assistance

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Cultural Change - Employee Training

- Daily Safety Contacts
- Weekly toolbox talks where relevant safety issues are discussed
  - Recent incidents
  - Inspection/Audit results
  - New equipment procedures
- Monthly OSHA Compliance Training
  - Classroom / Group sessions
  - Hands on demonstrations
  - Proficiency demonstration

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Cultural Change - Employee Training

- New Hire Orientation Training
  - 3-5 days depending on job responsibilities
- Over 60 hours EHS training/year/employee
  - Regulatory compliance topics
  - Safety job procedures (JSA/JHA)
- Training matrix
  - Minimum requirements for every employee based on job classification

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Cultural Change – Employee Training

- OSHA Citation Training to Enhance Understanding of Regulatory Compliance
  - Centralized system for reporting and managing OSHA activity and inspection results
  - Communication of lessons learned
  - Training on what citations mean and how to ensure compliance
- No OSHA citations in almost 4 years

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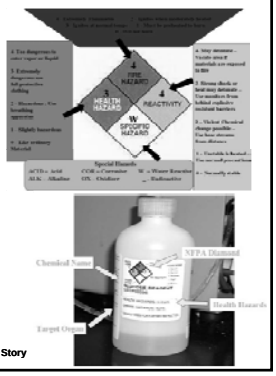
OSHA Citation History/Compliance Training Example

Hazard Communication – Citation Specifics

29 CFR 1910.1200(f)(5)(i) & (ii):

- Hazardous chemical containers improperly labeled.
- Hazardous chemicals containers not properly labeled, tagged, or marked with appropriate hazard warnings.



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Cultural Change - Management Training

- OSHA 10-hour training for all mgrs./supervisors
- OSHA 501 Course for all Safety Directors
- 2-4 hour Annual OSHA Recordkeeping Training
- National Safety Council Supervisory Development Course (or equivalent) for all managers
- Dale Carnegie "Casting Leadership" for all managers
- Corporate-wide EHS meetings
- Monthly HS Communication Conference Calls
- Monthly Topic-Specific Webinars
- Quarterly Facility Best Practice Sharing

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Cultural Change - Injury Notification & Transparency

- Expanded investigations and root cause analysis of incidents
- Tracking system to identify closure on all corrective actions
- Executive management notification of recordable incidents via email
- Monthly executive summary reports
- Semi-annual Injury Reduction Trend Analysis at each location with monitored action plans

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Cultural Change - Injury Notification & Transparency

Website Dashboard Used to Track Progress

- Email notification of recordable injuries/illnesses
- Monthly executive summary reports
- Automatic calculations of rates
- Automatic trend line analysis
- Rate comparisons between facilities
- Rate comparisons with NAICS
- Graphing capabilities

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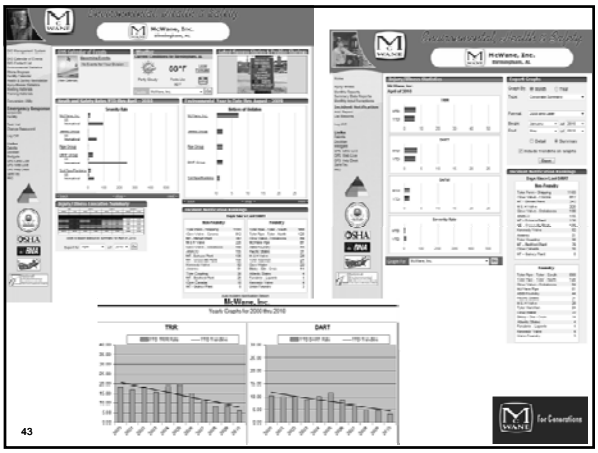

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3. Comprehensive, Web-Based EHS Management System

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EHS Management System

- Provides a coordinated & consistent means for each facility to:
  - Assess
  - Measure
  - Document
  - Report, and
  - Continuously improve workplace health, safety & environmental protection
- McWane's EHS Management System consists of:
  - Web-based tools (Medgate, Dakota, Safetec, PRG, Stars)
  - Policy, Directives, Procedures, & Work Instructions
  - Measuring, Tracking, and Reporting Systems
  - Drivers for Continuous Improvement

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Systems Approach

- Reliance on processes & management systems to DRIVE the process forward
  - Strategic vs. fire-fighting
  - Proactive vs. reactive
  - Long-term vs. short-term
  - Systems vs. checklists
- Coordination of efforts while maintaining independency of site locations

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Compliance Based Safety Program	vs.	Mgmt. System Approach
Correction of specific hazard		Emphasis on eliminating root causes of failures
Motivation based on avoidance of consequences & fines		Motivation is achievement oriented
Improvements occur inconsistently or ad-hoc		Explicit goal of continual improvement
Employee participation during design limited to experts		Employee participation at all levels to promote buy-in

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Compliance Based Safety Program	vs.	Mgmt. System Approach

Issue: Equipment Guard Missing

Guard replaced	Guard replaced
Directive issued for greater vigilance	Underlying reasons for non-conformance determined
	More effective guard designed
	Equipment or process changed so hazard is eliminated

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McWane's EHS Management System

- Based on principles of ISO 14001 & OHSAS 18001
- Guidance obtained from OSHA's 1989 Draft Management Guidelines & OSHA's VPP Program concepts

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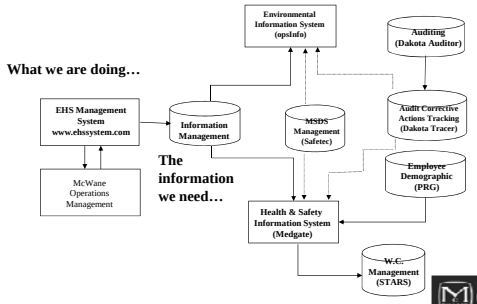
McWane's EHS Management System

Compliance Program Framework



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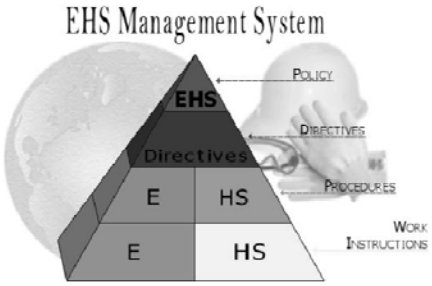
McWane's EHS Management System



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Index of Health & Safety Procedures

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McWane, Inc
Health & Safety Procedure
Permit Required Confined Spaces

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CLOW VALVE COMPANY
Oskaloosa, IA

Confined Space
Facility Specific Work Instructions

CVO-HSP-012-WI-02
Issue Date: 5/19/06
Rev. Date: 3/16/07
Page 1 of 2

DESCRIPTION OF FACILITY PROCESS FOR EVALUATING CONFINED SPACES, KEEPING AN INVENTORY AND A SITE MAP:

1. Initial confined space surveys/evaluations were completed by the Safety Engineers at both the Metal Casting Facility and Machine Shop.
2. Space descriptions, hazards, and necessary precautions were noted on HSP-012-F1.
3. New equipment/machines purchased at Clow Valve require the completion of an EHS AR Review. This checklist ensures that the management team, including the Safety Manager, evaluates all new equipment to identify potential confined spaces. Anything identified as a confined space is formally evaluated using HSP-012-F1.
4. Inventories of confined spaces are maintained by the Safety Engineers and updated as needed. The inventories are in Excel Spreadsheets (examples and hyperlink addresses provided below) and maintained on Clow's intranet.

Clow Machine Shop - Confined Space Inventory

Page 1

\\intranet\Safety\MACHINE SHOP SAFETY\Confined Space\HS Confined Space Inventory.xls

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OHS Database Solution

- ✓ Allows Integration of data between EHS functions
- ✓ Standardizes workflows and processes
- ✓ Tracks performance and identifies risk, trends, and problem areas with key metrics

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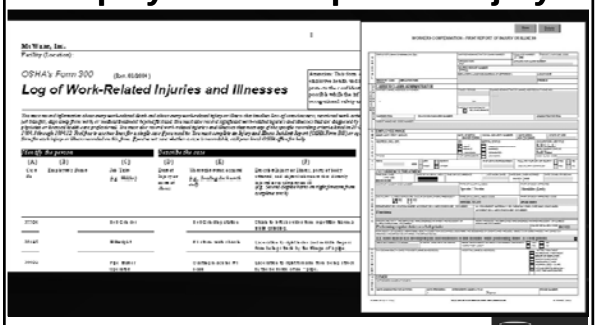
OSHA 300 Log and Employer's 1st Reports of Injury



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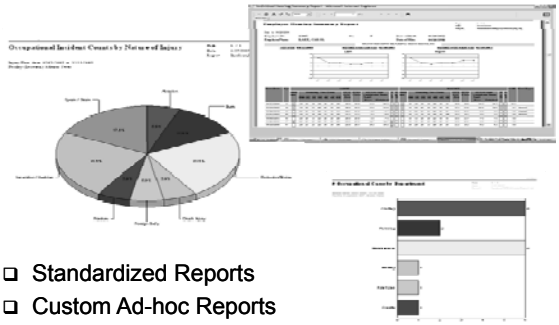
Medgate® Report Examples



- ❑ Standardized Reports
- ❑ Custom Ad-hoc Reports using Crystal Reports or Citrix Database

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opsInfo

- Tasks
- Data
- History
- Permits
- Events
- Notifications

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Audits & Inspections

- Mechanism to identify risks and compliance issues
- Drive the continuous improvement movement forward
- Opportunity for employee engagement
- Opportunity for transparency & communication of results
- Means to identify potential deficiencies in advance at other sites

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Audits & Inspections

- **External**
  - Compliance and Management System
  - Recordkeeping
  - Perception Surveys
  - Special Topics
- **Internal**
  - Weekly, monthly, quarterly facility-wide (escalation of focus & personnel)
  - Regular audits of procedures & work instructions & safe job procedures (JSAs)

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Dakota AUDITOR

Dakota TRACTRAC CORRECTIVE ACTIONS

- Audit protocols and documentation
- Tracks status of audit findings and corrective actions
- Sends out reminders for due dates and warnings for uncompleted actions
- Documents corrective measures taken (before & after photos)
- Generates reports

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4. Collaboration with Human Resources

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Joint EHS/HR Initiatives

- McWane University
- McWane University 2.0
  - Computerized based training
- Dale Carnegie "Casting Leadership" Training
  - Clear Management Training
- Access Line (24 hour)

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Joint EHS/HR Initiatives

- Wellness Initiatives
  - Smoking Cessation
  - Home Wellness Newsletters
- Standardized Performance Appraisal Program

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5. Communications & Relationship Building

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External Communications

- National, Regional, & Local EHS Conference Presentations
  - Alabama & Georgia State
  - National Safety Council Annual Conference
  - ASSE (American Society of Safety Engineers)
  - AFS (American Foundry Society)

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External Communications

- Participation in EHS Organizations
  - Chair, American Foundry Society EHS Committee
  - National Safety Council Board Member
  - ASSE National Committees
  - Members AIHA, ASSE, NSC, AFS
- Benchmarking with other top tier companies

External Communications

- OSHA Outreach
  - National, Regional, Area OSHA Administrators
  - OSHA personnel visits to McWane facilities
  - Partnered with OSHA Ergonomics Team
  - Partnered with OSHA on Silica Standard Proposal
  - Provided comments on other proposed standards
  - Attended public OSHA hearings on proposed standards

External Communications

- Developed Community Action Panels (CAPs)
  - Meeting stakeholders in communities where our facilities are located
  - Address Operational & EHS questions and/or concerns of the community
- Sponsored Teen and Senior Safe Driving Seminars in Alabama
- McWane Foundation provided >$30 million in past 10 years to community projects

Internal Communications

- Weekly Incident Conference Calls
  - Operating Group Safety Director participation with VP Health & Safety
    - Incident reviews
    - Regulatory activity discussion
    - Positive Operating Group Initiatives
    - Miscellaneous issues, upcoming events, etc.
  - Similar calls with Operating Group SH Directors and Site Safety Managers

Internal Communications

- McWane Website: www.mcwane.com
- McWane Magazine
  - Safety articles included in each

- Monthly HS Newsletters posted on website
  - On and Off-the job emphasis
- Employee Newsletters
  - Work-related and home safety topics
  - Corporate and facility generated
- EHS Responsibility Brochure
- Access Line (24 hour)

What Did We Learn and What Have We Achieved?

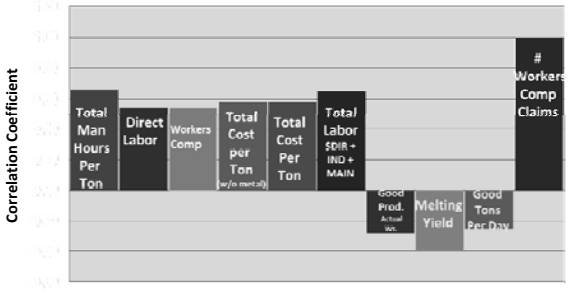
The Cost of Failure

- Criminal Prosecutions at six facilities with jail time and substantial fines
- Civil sanctions from federal and state regulators
- Debarment risk
- Related civil litigation
- Professional Services
- Management Distraction
- Increased Turnover
- Operational Losses
- Workers Comp Costs

Average Correlation

Costs/Productivity to No. Workers Comp Claims

Pipe Shops 1999 - 2005



The Cost of Failure

- This can happen to any company.
- Change takes a long, long time and hard work.
- Regaining your reputation takes a very, very long time.

The Cost of Failure

- Even well-intentioned organizations need to have a system of checks & balances in place
  - EHS Management systems
  - Corporate oversight
  - 3rd Party Auditing
  - Independent, competent individuals willing to give honest assessments – EHS "Champions"
- Celebrate smaller, short-term successes with passion.

However,

We are well on our way !

Going Forward -- Current Initiatives

Continued Emphasis on:

- Lean Manufacturing
- 6 S (5 S plus Safety)
- Computer Based Training
- McWane Ergo Cup Competition
- OSHA VPP
- Off-the-Job Safety
- Zero Injuries

In Summary…..

- Compliance – 100% Compliance 100% of the time
- Protection – of our employees, the environment and the public
- Continuous Improvement – of our EHS performance

The McWane Story

The McWane Way…..
Do It Safely, Or Not At All!

For more information:

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