

WILLBROS



A Good Job On Time

Best Safety Practices in On-Shore Pipeline Construction

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Corporate HSE Philosophy Shift

- **Prescriptive to Governance**

- In 2008 our Corporate HSE group began the transformation from a Corporate prescriptive approach to a Governance approach through the issuance of Performance Standards.
- Allowed the Business Units the latitude to develop HSE process and procedures that are specific to their needs and modes of operation.
- This autonomy necessitated the development of a HSE Management system within US Construction to manage our processes and procedures and to ensure compliance with the corporate Performance Standards.
- US Construction is using a five element management system to achieve this requirement.

Willbros US Construction HSE Management System

- HSEMS

Management/Leadership Commitment

- HSE Management System Document
- HSE Management Steering Committee Policy
- HSE Business Plan
- Project 200 Policy



QA / QC

- Forman's Assessments
- HSE Field staff assessments
- Houston QA Assessments



Willbros Construction US

Risk Management

- Risk Profile
- HSE Policies and Procedures
- SSSP & SSEP
- Tap Root System
- Total Incident Reporting



- Training Matrix
- Cultural Surveys
- Incentive Programs
- Safety Bonus Program

Training / Culture

Employee Involvement

- Safety Meetings
- Committees
- Safe PIPE



Initiatives

- **August 2009: Project 200**

- Moved Project 100 to a HSE Field Committee forum.
- Transforms FLS from recipients of Safety process to Initiators of the Safety processes.
- This group is now involved in assisting in the development of policies and procedures and in developing tools to make “Safety leaders” of the field Foreman.
- Reviews incidents to help identify trends and develop corrective actions to halt the trend.
- Develops Incentive programs for field personnel.

Initiatives cont.

- ZIP (Zero Incident Process) training was given to all Willbros US Construction management down through the assistant Superintendent level.
- Formal 2 day Forman's HSE training instituted for all large projects. One day of motivational sessions and one day of Leadership.
- Developed 10 one hour FLS leadership modules for us to present in the field as the opportunity presents.

Initiatives cont.

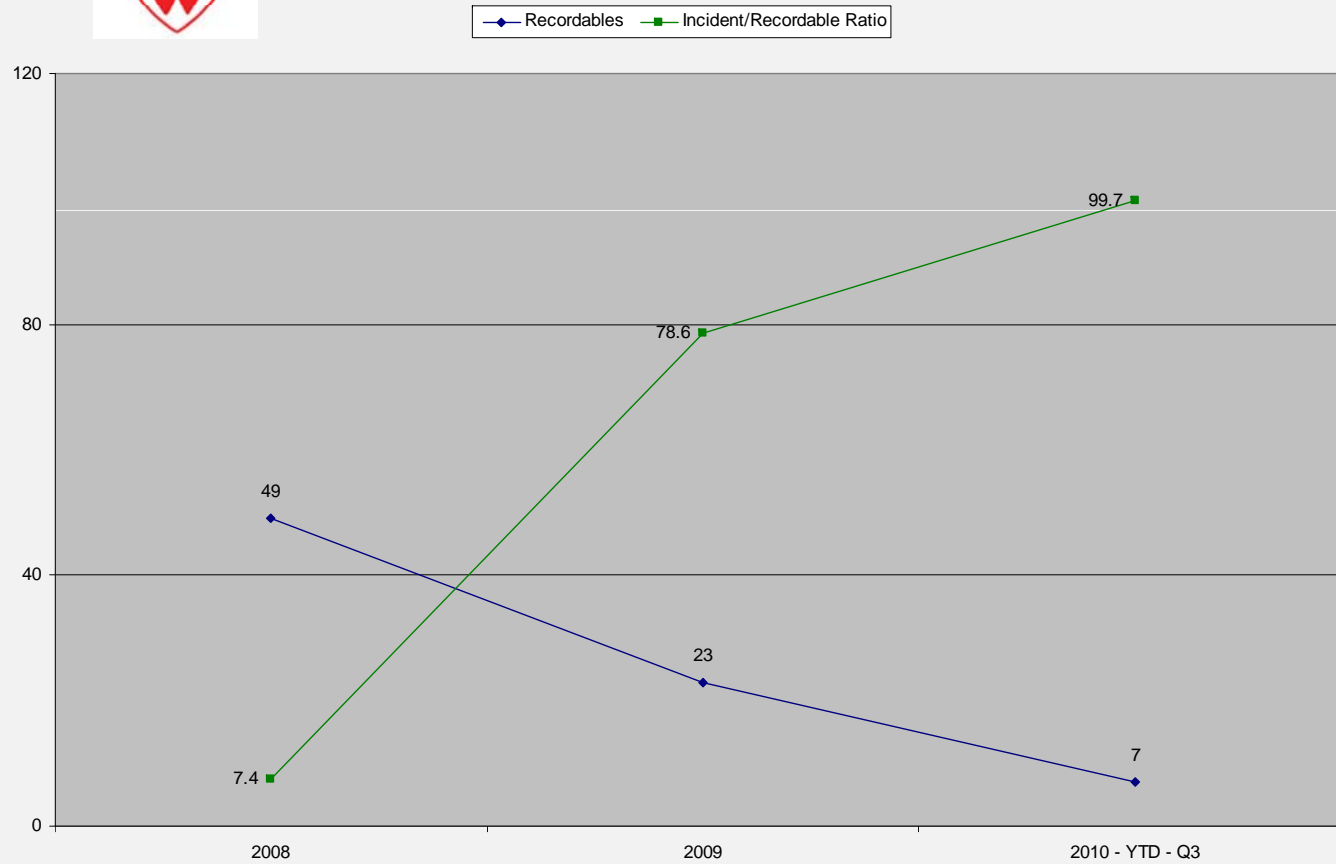
- **Total Incident Reporting**

- Hard focus began at the end of 2008 toward Total Incident Reporting.
 - “Can’t fix what your don’t know is broke”
- Began several incentive programs to encourage reporting.
 - Don’t Gamble with Safety
 - Safety Leader caps
 - Safe P.I.P.E mini forms
- We believe we have seen a correlation between the number of incidents reported and the OSHA recordable rate.
- For every incident that is reported, some form of communication is made and mitigating measures are put in place.

Initiatives cont.



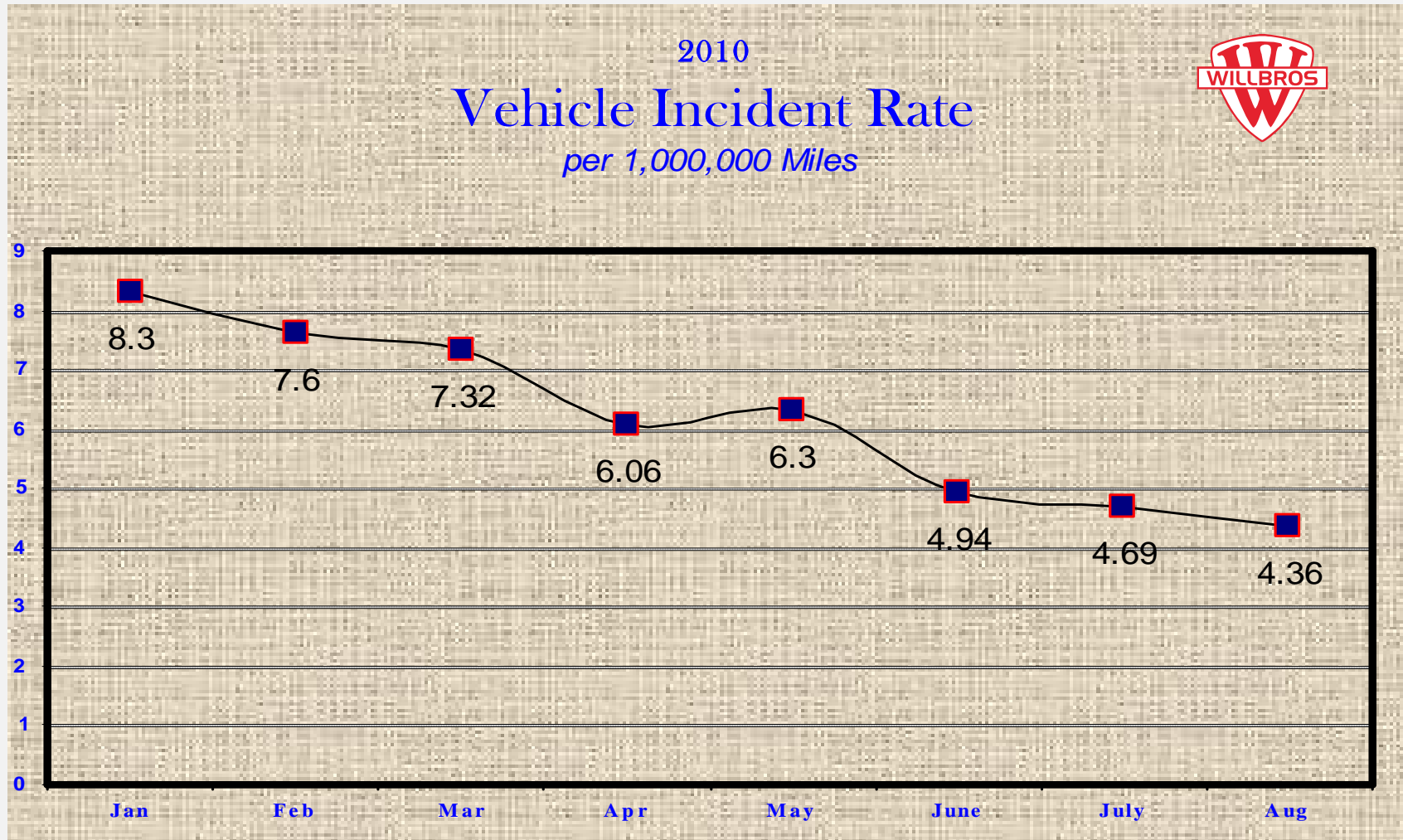
Willbros Construction (US), LLC
Total Incident Reporting vs Recordables



Initiatives cont.

- **360 degree walk around**
 - Suggested by field employee. Stickers on all vehicles & equipment.
- **Developed our own ROW driving course.**
- **In Vehicle Monitoring Systems**
 - GPS locator, mileage and speed indicators on all Willbros licensed vehicles.
 - HSE receives monthly data and distributes to USC Management.
 - Employee knowledge of speed monitoring capability has kept speeding in check.
 - Vehicle incident rate has steadily improved since this program started.

Initiatives cont.







Initiatives cont.

- **Safe P.I.P.E.**

- We decided we needed a “Mantra”, something to rally around.
 - We see, touch and work with pipe every day, so it seemed logical to create something around the acronym PIPE.
- We identified the top obstacles to imbedding this into and improving our safety culture.
 - **Multi National Work Force**
 - North America, South America, Mexico, Asia, Europe and Texas..
 - An individual's “Hazard Recognition Skills” depends largely on the culture they came to us from.



President Theodore Roosevelt became the first U.S. chief executive to ride in an automobile, in Hartford, Conn.



Stealing natural gas in China

Two women carry a plastic bag containing natural gas siphoned from a well in Pu Town, in central China's Henan province. Local peasants have been illegally taking natural gas from oil wells. Each bag costs a household up to two dollars, but they are dangerous.

Initiatives cont.

- **Our goal became to build a process that was:**
 - Recognizable and relatable to the employees,
 - Easy to implement,
 - Easy to re-enforce
 - Addresses the issues we see on the spreads
 - Supports Total Incident Reporting
- **Safe P.I.P.E**
 - P - Personal Protective Equipment
 - I - Identification of Hazards
 - P - Position “line of fire”
 - E - Eliminate (engineer out, substitution)
- **Safe P.I.P.E. booklet.**

Date: ___/___/20___

Safe P.I.P.E.

Foreman/Crew: _____/_____

Task: _____

P PPE

What PPE beyond Hard Hat, Safety Glasses & Safety Footwear are required for this task?

I Identify

What are the hazards in this task?

How will you safely work around these hazards? _____

P Positioning

What are the positioning hazards?

How will you safely work around these hazards?

E Elimination

List hazards that can be completely eliminated?

- 1. _____
- 2. _____

How will you completely eliminate this hazard?

- 1. _____

Continuous Safety Improvement



Searching for C.S.I. Clues

Safe P.I.P.E.



In Closing:

- HSE Management System
- Total Incident Reporting
- Hazard recognition process that:
 - Addresses obstacles
 - Identifiable to employees
 - Addresses the issues commonly confronting employees
 - Easy to re-enforce