

70% OF INCIDENTS ARE HUMAN ERROR

Problems with procedures are linked to numerous incidents and frequently cited as a contributing root cause. Inadequate management of procedures has not only contributed to disasters such as Bhopal, Piper Alpha, Texas City and Macondo, but also to fatalities, personal injuries and health-related incidents.

The main causes are inadequate procedure coverage, poor procedure culture, failure to follow safe working procedures and the use of inadequate procedures. Successful work guidance depends on the synergistic elements of the procedure process.

PROCEDURE PROCESS - CRITICAL ELEMENTS

- DRIVING FORCES
- EXECUTIVE LEADERSHIP
- GOVERNANCE
- MANAGEMENT SYSTEMS
- WRITING TOOLS
- REVIEW & APPROVAL
- TRAINING
- USAGE
- CONTINUOUS IMPROVEMENT



DEFINING THE FUTURE OF PROCEDURES



RESEARCH

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PROCESS SAFETY CENTER
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Principal investigators are Dr. Sam Mannan, Director of the Mary Kay O'Connor Process Safety Institute and Dr. Camille Peres, leading human factors and usability professor at the Health Science Center.

For additional information about participation, please contact Elliott Lander at 281-370-9540 x115 or email eplander@atrco.com.

\$50 BILLION PROBLEM
Losses per year
in preventable
incidents

ADVANCED PROCEDURE RESEARCH STUDY



This Texas A&M University study with leading technology provider ATR and a diverse range of industry partners covers ground-breaking research on leading practices, technology breakthroughs and human factor engineering to ensure high quality and usable procedures.

GOAL ZERO
INCIDENTS

ADVANCED

This study concentrates on procedure improvements in three key areas: human factors, technology and procedure lifecycle processes.

HUMAN FACTORS



- Human diversity
- Dealing with stress
- Distractions
- Memory
- Cognitive bias
- Target fixation
- Reading level
- Learning ability
- Communication

TECHNOLOGY



- Scalability
- Interface design
- Multimedia displays
- Interactivity
- Layers of information
- Adaptability
- Global changes
- "Smart" procedures

PROCESS



- Lifecycle management
- Use and adherence
- Executive leadership
- Writing
- Management of change
- Review and approval
- Continuous improvement



PROCEDURE

SAFETY



EFFICIENCY

Combining leading and future practices, human factors and technology, this study focuses on improving the quality and usability of procedures for zero incidents. Current practices are limited to "one size fits all" paper-based compliance- driven procedures whereas this study focuses on technology - enabled solutions.

TRANSCENDING THE "ONE SIZE FITS ALL" PROCEDURE PARADIGM



People are different with a variety of learning styles, experience levels, and other characteristics. This study explores better methods to provide work guidance solutions at all levels to optimize worker safety and performance for each worker, not the average worker.

RESEARCH



HUMAN FACTORS

Applied science that coordinates the design of devices, systems, and physical working conditions with the capacities and requirements of the worker. Also called human engineering.

HUMAN RELIABILITY

DELIVERABLES

- Identification of current best practices across wide variety of industries
- Identification of future best practices
- Optimized procedure templates for paper and computer-based
- Advanced procedure writer's guide
- Research-based recommendations on procedure usability
- Enhanced technologies built into the SmartProcedure® platform
- Human factored procedure audit criteria