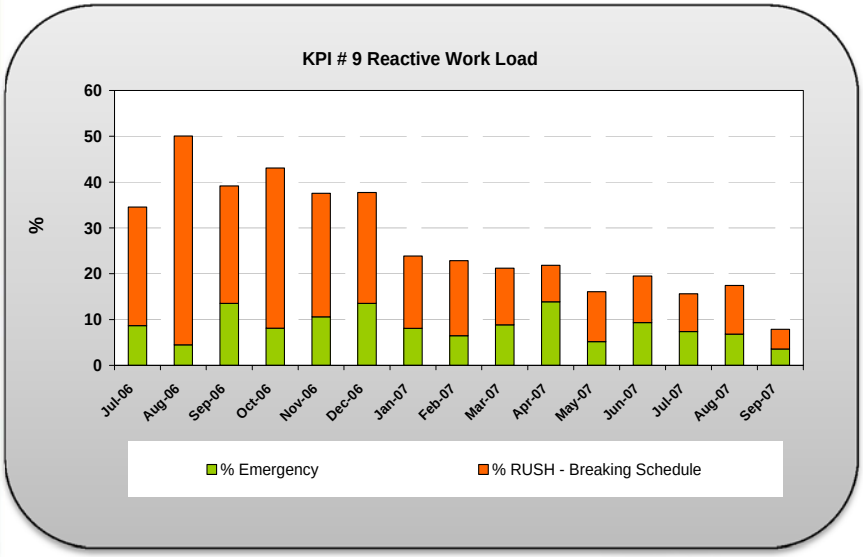
Gulf Coast Refinery

Background and Situation

- One of the largest refineries in the US, with a capacity of approximately 460,000 bbl per day
- Approximately 2,500 employees and 4,000 or more contractors on a daily basis
- Mix of Union and non-union employees
- Several high profile Loss of Control events resulting in fatalities, injuries and major production losses
- Some well-documented work processes existed, but were not followed as designed in the field
- Directive from executive leadership was to transition from a reactive operating mode to a stable, predictable mode

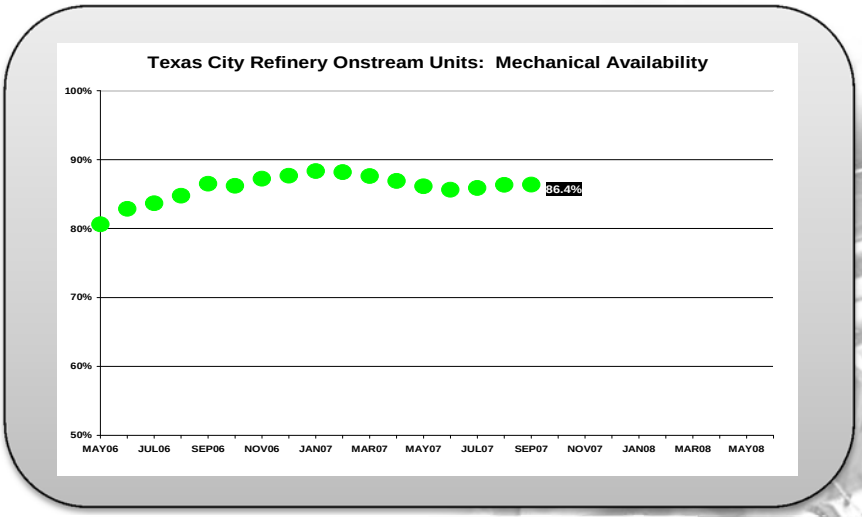
Process Results:

- Implemented Control of Work and Work Management process
- KPI's generated and utilized to maintain operational stability and drive process improvements
- Percent of reactive work decreased from over 40% to less than 20%.
- Onstream Mechanical Availability improved from 80.6% (May 2006) to 86.4% (Sept 2007).



Bottom-Line Impacts:

- Total annualized savings from availability improvements (through Sept 2007) → $32,651,000
- Compliance with executive and regulatory agency directives



RELIABILITY MANAGEMENT GROUP

Masters of Implementation