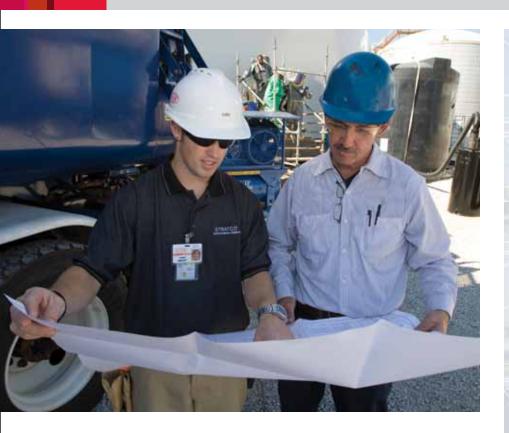


MECS® TURNAROUND CONSULTING SERVICES FOR SULFURIC ACID PLANTS



SAFER, LOWER COST AND ON SCHEDULE SULFURIC ACID PLANT TURNAROUNDS

DuPont and MECS, Inc. (MECS) sulfuric acid experts bring real world experience and a proven model to the plant turnaround process. Combining DuPont sulfuric acid expertise and MECS° sulfuric acid plant process technology provides customers with state-of-the-art solutions, technical support and consulting services, with a focus on reliability, operability, environmental stewardship and safety. With nearly 150 years of real-life experience operating sulfuric acid plants and over 100 years of acid plant design, DuPont and MECS can provide you with an unparalleled combination of operations and technical expertise that results in improved execution of critical acid plant turnarounds. This operational, technical and reliability excellence has been achieved by developing and applying best practices, and developing and retaining the industry's best personnel. To determine how DuPont and MECS science-based innovation, problem solving success and sulfuric acid technology can help transform your organization to become safer, higher performing and more environmentally sustainable, contact:

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Tel: +1-302-992 2536
frank.s.battino@usa.dupont.com

FEATURES AND BENEFITS

SCHEDULE EVALUATION

- Built around critical maintenance, inspection and capital work
- Optimize use of time and resources
- Remove work that adds no value

INSPECTIONS

- Ensure critical inspections are performed properly
- Inspect known problem areas from a historical perspective

TURNAROUND CONSULTING TEAM

- Comprised of personnel from DuPont and MECS
- Engages in multiple acid plant turnarounds annually
- Provides advanced process technology expertise

MECS TURNAROUND EXPERIENCE

- Global references in all market segments
- Best practices and technical expertise developed through years of sulfuric acid plant turnaround execution
- Methods focus on driving aggressive planning and scheduling processes
- Reduces down time and improves plant performance



Learn more at www.mecs.dupont.com



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THE MECS® TURNAROUND CONSULTING MODEL

BEFORE

- 1. Turnaround Front End Loading (FEL) performed to evaluate turnaround scope of work and identify critical work; compare against current MECS® maintenance turnaround and inspection best practices.
- 2. Review turnaround schedule to evaluate client-identified critical path; identify potential delays or conflicts and critical inspection hold points.
- **3.** Define scope of service and job tasks for contractors.



DURING

- 4. Inspect and provide repair recommendations and reports on critical pieces of equipment that may include:
- Combustion Chamber
- Process Air Heater
- Converter Heater
- Waste Heat Boiler
- Steam Drum
- Economizer
- Drying Tower
- Drying Tower Mist Eliminator Vessel
- Drying Tower Pump Tank
- Drying Tower Acid Cooler
- Interpass Tower
- Interpass Tower Pump Tank
- Final Tower
- IPAT/Final Acid Cooler
- Product Acid Cooler
- Converter

- Cold Heat Exchanger
- Intermediate Heat Exchanger
- Hot Heat Exchanger
- Cold Interpass Heat Exchanger
- Hot Interpass Heat Exchanger
- Gas Cooling Tower
- Weak Acid Cooler
- Primary Reverse Jet Scrubber
- Final Reverse Jet Scrubber
- Final Scrubber Coolers
- Effluent Stripper
- Safety Seal Drum
- HRS (Heat Recovery System)
- Critical Instrumentation
- 5. Report as-found condition for all equipment inspected; recommend solutions for immediate repairs; provide long term repair and replacement options.

MECS

www.mecs.dupont.com

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AFTER

- **6.** Participate in post-turnaround critique and evaluation.
- Provide long term recommendations (2-5 years) for equipment inspected and enable effective planning and capital management for upcoming turnarounds.