

# CHEMICAL CLEANING & DECONTAMINATION

Process systems, whether serving steam generators, hydrocarbon and chemical processing or the pulp and paper industries, all require solutions to improve or maintain their performance specifications. Chemical cleaning of these systems promote, improve, and restore operating characteristics such as heat transfer, flow rate, and pressure differential in equipment not suited for mechanical cleaning. As a cleaning service, Matrix Service supports your company with knowledgeable and experienced staff, engineered planning, and specialty resources to complete your project safely and on time. Our guiding principles ensure that we deliver the best possible results at every interaction.

**Safety. Integrity. Positive relationships. Stewardship. Delivering the best. These core values have forged our reputation for excellence.**

**A HIGHER STANDARD IN SERVICE.**

# RELEVANT TO YOUR NEEDS

Matrix Service offers excellence in engineering and specialty craft personnel that focus on highly effective solutions. As your contractor, we are stewards of your budget, schedule and resources. We fulfill your scope and technical requirements while putting safety and quality first.

## Advanced chemical cleaning services

- Hydrocarbon decontamination
- Reactive product neutralization
- Pre-operational cleaning
- Process throughput improvement

## Reactive chemical cleaning services

- Scale removal from process surfaces
- Neutralization of acidic and alkaline deposits
- Conditioning of systems for operation
- Specialty focus on heat transfer restoration and flow improvement

## Hydrocarbon decontamination

- Degassing and de-oiling of refining and petrochemical process systems
- LEL reduction for safe entry access
- Removal of hazardous sulfur species such as H<sub>2</sub>S and iron sulfide
- Deactivation of contaminants on alloys, catalysts and similar media
- Penetration and fluidization of heavy hydrocarbon deposits
- Various application methods including circulation, vapor phase, partial filling and aqueous-free treatments

## Specialty process applications

- Passivation of sensitive metallurgies
- Foamed application of solvents
- Displacement circulation methods
- Continuous parameter monitoring including rapid analytical sampling
- Waste minimization through refinement of cleaning processes

## Specialty cleaning focus

- Alkylation units
- Ethylene furnace and quench systems
- Reactive product tanks and vessels
- Large refinery flare systems
- Pre-operational cleaning of steam generators
- Pickling and passivation of butadiene equipment
- Preparation and maintenance cleaning of amine systems
- Full unit decontamination