

Chemical Industry

Integrating advanced technologies on a centralized platform for process safety control and proactive risk management in the chemicals industry

Chemical manufacturing plants are extremely dangerous for workers and the environment. Daily risks include exposure to toxic and highly flammable chemicals, which can cause severe injury from chemical inhalation and burns. Mechanical failures, faulty valves and seals and chemical-based pipeline corrosion as well as unmonitored chemical processes, contamination, improper labeling, and waste disposal issues can lead to hazardous reactions and dangerous fumes. Explosions, fires, and chemical spills may require immediate response including containment activities, emergency evacuation and medical attention, and can cause severe environmental damage.



GOARC's safety solution provides dynamic risk assessment and enhanced control of process safety for chemical-based activities. Real-time status of workers and processes enables critical and time-sensitive alerts. Accessibility to information on hazardous chemical processes and incident-specific emergency procedures ensures rapid response in a complex work environment. GOARC proactive risk management addresses hazards stemming from raw materials storage and chemical reactions, monitoring high-risk activities, equipment checks and maintenance to prevent incidents and mitigate the consequences of emergency scenarios.

Understanding the capacity for major accidents in the chemicals industry and the vital importance of process safety and administrative control in high-risk activities involving corrosive, combustible, and toxic materials, GOARC's platform connects management, workers, assets, and processes, empowers connected workers and provides constant worker awareness and reliable communication in an integrated system that delivers the highest standard of risk-based safety management.

Data-driven decision-making

- Seamless flow and integration of data from all areas of the chemical plant including external and internal data sources, IoT sensors and other connected equipment, operational data, real-time worker status and asset integrity checks
- Centralized data visualization with AI and ML analytics for improved and rapid decision-making, facilitating corrective and preventive actions
- Effective and timely identification of potential chemical hazards and malfunctions of sensitive equipment
- Multi-directional communication between the connected worker and the command center enables real time alerts and notifications, quick response time in emergencies
- Real-time information availability including emergency procedures and relevant safety documents for handling specific chemicals and chemical reactions



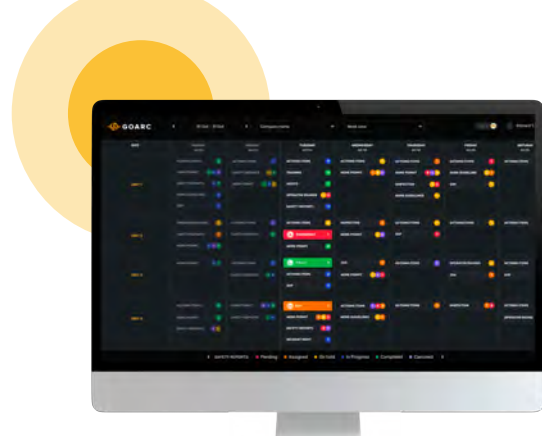
Enhanced process safety and control

- End-to-end process visibility across the chemical plant
- Ongoing critical data for hazard identification and assessment, prioritize risks
- Aligns chemical plants with regulatory requirements regarding hazard potential and environmental concerns
- Streamlines regulatory and safety review for chemical approval
- Dynamic diagnostic analysis – additional layer of protection
- Monitor inspection and labeling activities
- Monitor pressure and temperature checks
- Calibration and maintenance status



Integrated command center

- One source of information
- Advanced analytics
- Centralized administrative control, work processes
- Real-time view of operations, remote asset management
- Updated records and investigation reports – cross contamination, injuries from chemical inhalation/ burns, explosions, environmental concerns
- 24/7 monitoring of facility: equipment, chemicals storage and conditions
- Hazard alerts – runaway/chemical reactions, spills, air/ water contamination
- Permit to work management
- Emergency management – coordinate resources, response plan, shutdown procedures, evacuations



Critical reports

- Raw materials handling and storage, what chemicals are on site
- Product transport – liability for materials, interaction with public
- Equipment functioning – reactor, centrifuge, tanks, air vents
- Quality assurance
- Waste disposal of hazardous materials
- Inventory
- Hazard alerts – runaway/chemical reactions, spills, air/ water contamination



GOARC's Value

Reach Operational Excellence with GOARC's technology



AI & Machine Learning

Artificial intelligence and machine learning to identify and monitor predictive and prescriptive metrics, delivering dynamic reports based on real-time analytics for optimal risk and safety management.



Connected Worker

GOARC's Connected Worker solution enables a full digital view of facility activities, converging personal and process safety with integrated information from all sources enabling fast data-driven decisions at the right time.



Command center

The only centralized command center with real-time data visualized. Combining command, control, communications, computers, and intelligence together in one source for a full digital view of facility operations

Unique Visualization and Dynamic Personalized Routines

- Permit to Work
- Shift Management
- Operator Rounds
- Emergency Preparedness
- Audits
- Emergency Management
- Asset Management
- Hazard Management
- Incident Management
- LOTO

Our Solutions



Control of Work

- Flexible system with dynamic routines and workflows
- Data support investigation and corrective action
- Analyze all work processes across the facility and set and monitor KPI's



Critical Event Management

- Integrated end-to-end emergency communication and handling
- Detects anomalies and notifies workers with push notifications
- Emergency equipment audits, training and emergency drills



Asset Performance Management

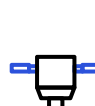
- Track, analyze and manage asset lifecycle
- From inspections to maintenance with a standardized and optimized process
- Analyzes device properties to predict failures and performance degradation



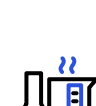
Health & Safety

- Proactive protection against potential dangers
- Data-driven actionable insights and alerts
- AI-enabled analytics and case management tools

Industries



Mining



Oil & Gas



Chemicals



Petrochemicals



Pharma



Utilities



Manufacturing

Trusted and used daily by



About GOARC

GOARC's industrial safety solution delivers a real-time view of a plant's operational reality with superior visualization and dynamic work activities and risk management. It connects people and aggregates disparate data from systems, sensors, and the human-derived activities – delivering meaningful, actionable insights across the organization.