

Petrochemicals Industry

Closing the gap on worker and operational safety with a centralized platform for process safety and effective risk management in the petrochemicals industry

Petrochemical plants can pose a significant danger to workers, the population, and the environment. Daily risks stem from handling, storage, and process management of hazardous materials, as well as proximity to oil refineries. Concerns range from the physical dangers of chemical exposure to mechanical and operational failures such as sensor malfunction, improper valve or pump alignment, eroded seals, and incorrect readings. Faulty and unmonitored processes can cause safety issues such as leaks and contamination, dangerous pressure buildup and uncontrollable heat leading to thermal runaway and hazardous, explosive chemical reactions.



GOARC's safety solution answers the critical need to improve communications and data transfer across plant operations, providing dynamic risk assessment and enhanced control of process safety for petrochemical-based activities. Real-time status of workers and processes enables optimal safety management that combines sensor and detector data with information from operators in the field for time-sensitive alerts and rapid response in a complex work environment. GOARC's platform provides a strategic view of operations and equipment, a central data source, and the tools to connect and interface between all systems including workers, assets, and processes.

GOARC's centralized safety management platform integrates advanced technology, data, and artificial intelligence to enhance the connection between the control room and operators in the field, for proactive process safety. An integrated and accurate virtual and physical view of processes verifies critical real-time data, incorporates operator input into the system, monitors high-risk activities, inspections, equipment checks and maintenance to effectively prevent incidents and mitigate the consequences of emergency scenarios.

Dynamic data transfer and advanced analytics

Track and monitor operations and gain critical insights with data on real-time status of employees, tasks in the field, and work procedures to maximize personal and process safety

- Seamless flow and integration of data across the petrochemical plant, including internal and external data sources, sensors and detectors, connected workers
- Centralized data visualization with advanced AI and ML analytics for improve data-driven decision-making
- Accelerates corrective and preventive actions to improve safety performance
- Bi-directional communication between connected worker, teams and command center enables real-time notifications and response time, and status verificationHazard alerts – detects and flags changes and processes: runaway/chemical reactions, gas leaks, spills, contamination, sensor malfunctions
- Accessibility of valuable data: records and investigation reports: contamination, explosions, environmental concerns
- 24/7 monitoring of facility: equipment, valve readings, identifies potential hazards, ignition sources, and other critical information
- Reliable, actionable insights for informed risk assessment



Integrated command center

- One source of information – a centralized network collects and aggregates massive amounts of data, breaks down silos of information
- Integrate data, analytics, and workflows
- Updated records and investigation reports, analysis
- Real-time alerts and response, rapid emergency management
- Enhanced communication from the field, greater worker awareness and engagement



Enhanced process safety and operational efficiency



- Tracking & Scheduling of key safety features such as pressure, temperature, measurement percent value, desiccant change, oil change and more
- Identify risks and ensure timely incident escalation
- Real-time information availability including emergency procedures and relevant safety documents for machinery operation and product handling
- Close skill gaps, build competencies, promote informed, engaged and safe workforce
- Connected safety: data-driven personalized safety insights and training, guidance
- Improve production performance and quality

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

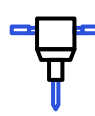
- Track, analyze and manage asset lifecycle
- From inspections to maintenance with a standardized and optimized process
- Analyzes device properties to predict failures and performance degradation



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.