

Modernized Fire & Gas System Improves India Gas Plant Safety

Case Study

ONGC Integrates F&G Safety System with Plant-Wide Network to Upgrade Safety and Improve Operating Efficiencies

Background

Oil And Natural Gas Corporation Ltd (ONGC) is the largest producer of crude oil and natural gas in India.

ONGC's Hazira Plant, the largest Gas processing Plant in India, embarked on an ambitious project to revamp the gas plant's electrical system including the Fire & Gas (F&G) system plant wide.



ONGC's Hazira Gas Plant in India

There are multiple installations of Honeywell F&G systems at Hazira plant, well-proven over time. The project scope included integration of the new system with the existing Honeywell Experion distributed control system through which the F&G network communicates.

Challenge

Safety and loss prevention initiatives require reliable data from the F&G systems to enable personnel to take appropriate actions during early detection and response. Initially the fire and gas detectors were to be installed in 19 remote plant locations but due to infrastructure limitations all of the detectors needed to be

integrated into 11 Fire substation alarm panels.

Ensuring uninterrupted data availability of the existing F&G network was a major challenge during project implementation.

The new system had to be integrated into the existing Experion server on which the existing F&G network and the supervisory systems relied to provide fast and reliable information on all areas of the plant. Availability of existing data was of utmost importance during integration of the new F&G network.

Solution

- Honeywell Safety Manager
- 8 Honeywell fire alarm panels along with
- 174 optical smoke detectors
- 204 rate of rise temperature detectors
- 77 manual call points
- 63 sounders and
- 63 beacons

Safety Manager combines Honeywell's proven Quadruple Modular Redundancy technology with extensive process safety management expertise in integrating process safety data, applications, system diagnostics and critical control strategies. Through integration with Experion, all of the system components are unified into one operationally integrated architecture, providing a unique opportunity to improve safety, process availability and efficiency.

Honeywell Fire & Gas Field Equipment:

- Gas & Flame Detectors
- Addressable Fire Sensors & Devices
- Notification Devices
- HSSD Point Type or Aspirating Early Fire Detection
- Process Monitoring Video Systems



Honeywell is a recognized leader in control, safety and security technologies with comprehensive experience in the oil & gas, refining, petrochemical and metals/mining industries, along with worldwide project engineering capabilities backed by skilled lifecycle services teams for continued support.



Gas Transport & Storage at Hazira

Benefits

The Honeywell Safety Manager solution enables the safety team to monitor the operation of the entire F&G network from the control room fire station. The response time during emergencies was greatly improved.

Integration with the existing fire & gas control system resulted in significant cost savings and the entire system is covered under a common Honeywell warranty support plan for all hardware and software issues.

The new fire & gas installation results in improved overall operational ease of maintenance and system availability.

ONGC credited the Honeywell team with excellent planning and execution during the installation and commissioning phases of the project which ensured timely and successful startup.

The Engineers at ONGC are well acquainted with the existing Honeywell fire and gas system; this familiarity reduces the time for maintenance and troubleshooting at the Hazira operations.

Honeywell's integrated fire and gas solutions are based on a layered approach to safety, encompassing both process and system technology, and the people who interact with that technology. It monitors areas where hazardous levels of explosive or toxic gas may become present and provides early warning of the build-up of gas or fire before it becomes a hazard to people, infrastructure and the environment.

An integrated approach to safety and security based on "defense-in-depth" with independent layers of protection is fundamental to industry best practices. Honeywell's extensive portfolio of F&G solutions includes Safety Manager, SIL3-certified safety systems, toxic gas, flame and smoke detectors, fire alarm panels, camera systems, sounders and beacons, and other critical components seamlessly integrated with Experion PKS in the overall control and safety of a plant.

For More Information

To learn more about how Honeywell's Fire & Gas safety systems can benefit your operations visit our website [Safety Solutions](#) or contact your Honeywell Account Manager, Distributor or System Integrator.

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