

# Oil, Gas and Energy



## Shah Gas Complex

Johnson Controls (formerly Tyco), were awarded the contract for the design, manufacture and supply of a distributed Public Address General Alarm (PAGA) system for installation on the the Shah Gas Complex, United Arab Emirates.

### Shah Gas Complex

The Shah Gas field is located within the Emirate of Abu Dhabi and is approximately 100Km south of GASCO's existing Habshan site in a remote part of the Emirate.

The gas field will be producing up to 1 billion cubic feet (cf/d) of gas which will be primarily used as feedstock for new power, desalination and petro-chemical plants in Abu Dhabi and the surrounding Northern Emirates.

### PAGA System

The PAGA system, forms an integral part for the life safety of all plant operatives. The system needed to be suitable for operational pre-recorded and emergency broadcasts to technicians within all plant areas.

The scope of work required the distribution of both audio and data around a network with a larger than normal number of nodes with status and monitoring information being collected centrally.

System control was to be incorporated at the Main Control Room (MCR) using standard access terminals with status reporting via ACE100View Software package.

We had to work in conjunction with several different contractors to ensure the continuity of the project through to completion.

Further to this, we faced a challenge during the design process. The initial node estimate for this project was between 40 and 50 nodes.



This soon escalated to a requirement of 80 nodes which almost tripled the initial requirement.

Following the deadline demands of the project and keeping within the continuity of the workflow, we introduced the Broadcast ZoneM apper, a feature based on existing data transmission modules that permits easier routing of data on congested networks.

This final solution was a dedicated network containing **80 ACE100 nodes, 174,000 watts** of amplifier capacity across the system and in excess of **100 equipment cabinets**.

The system also fitted with a high number of operator access units which totalled in excess of **160 in number**.

Johnson Controls has the ability to provide bespoke, scalable distributed, networked PAGA systems to meet specific demands.

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