



ERSG/Project/FS/021/12

PROJECT:  
HAZOP STUDY

**OUR SERVICES COVER THE FOLLOWING AREAS:**

- Process Hazard Analysis
- Enterprise Risk Management
- Project Management
- RUBI-Software
- Business Continuity Systems
- Process Safety Management
- Risk Training Solutions
- Environmental Management



# ARAMCO: JU'AYMAH GAS PLANT HAZOP STUDY (PHASE II)

## Project Intro.



INDUSTRY: PETROCHEMICAL  
SECTOR: OIL & GAS

After the completion of the integrated HAZOP assessments at Ju'aymah in 2010 the ERSG team were contracted to complete the balance of Units requiring a HAZOP. The contract also required ERSG to conduct HAZOP training for 30 candidates.

ERSG was awarded a contract by Saudi Aramco and commenced delivery on October 2011. The project was scheduled to take approximately 5 weeks to complete.

## Project Scope

The project scope included a HAZOP study for the following operations and P&ID's:

- Refrigeration and Product Handling (Plant R92/R93)
- Offshore and Sea Island (Plant R91)
- Surge, Injection & Offsite (Plant R83)
- Utilities (Plant R81)

Plant	Number of P&IDs	Number of columns	Number of vessels	Number of tanks
R92/R93	168	0	20	2 (6 duplicates)
R91	79	0	4 (2 duplicates)	0
R83	217	0	9 (10 duplicates)	0
R81	98	5	26 (4 duplicates)	5

# HAZOP STUDY: TECHNICAL PROCESS IMPROVEMET FOCUS

## Project Results

The HAZOP project resulted in the following outcomes for the company and participants:

- A PHA software package licensed to JGP
- A single integrated HAZOP database inclusive of 200+ recommendations
- Identifying areas of technical improvement within the operations and maintenance management of the plant.
- HAZOP course certificates of attendance for 30 participants
- Corrective action system included in the software database

## CONTACT DETAIL

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## SOFTWARE APPLICATION

ERSG used the Lihou HAZOP software for the duration of the project which has resulted in JGP having a single HAZOP/SIL database that includes all the risk identified during the HAZOP and the SIL's assigned.

All risks considered too high have been allocated to a manager to action and implementation progress will be monitored by the department through the software. The software can also be used for any future PHA studies including FMEA, FTA etc.