



PRESENTATION TO A.C.P

**TRAINING EXPERIENCE
SOUTH PARS PHASE 2&3**

**Rueil- Malmaison - 23 Juin
2018**

SOUTH PARS PROJECT SUMMARY

North Dome, North Field ou encore South Pars est un gisement offshore de gaz naturel situé à cheval entre les eaux territoriales de l'Iran et du Qatar dans le golfe Persique.

Découvert en 1971 par Shell, il s'agit du plus grand gisement de gaz naturel au monde.

- TOTAL SOUTH PARS PHASE 2 &3
- Buy-back project – 8 years - 2 Billions \$
- Partners :
 - Total 40%
 - Gazprom 30%
 - Petronas 30%
- Engineering and construction : Hyundai
- Drilling : Japanese Drilling Corporation
- Offshore platform : NPCC (UAE)



SOUTH PARS PHASES 2 & 3 FACILITIES

1. Offshore : 2 platforms:

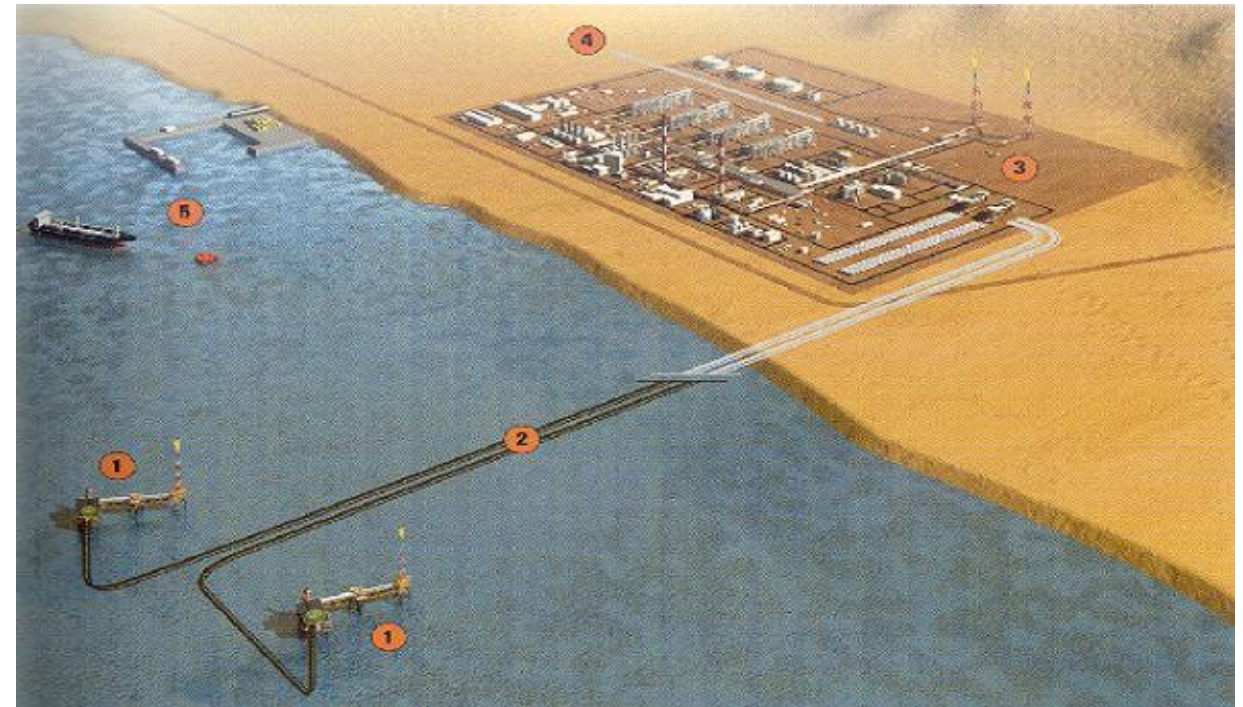
- Not normally manned
- Minimum treatment facilities
- 65 m water depth
- Remote flares
- 15 slots each
- 10 development wells each

2. Two subsea sealines:

- 32 " and 105 km long
- Wet scheme for raw gas transportation
- 4.5 " line for offshore MEG injection
To prevent corrosion and hydrate formation

3. Onshore gas treatment plant

- 4 identical process trains
- 56 million cubic meters of gas processing capacity
- 80,000 b/d condensates
- 400 tons/d sulfur



4 & 5

Common facilities(developed by NIOC)

- 56 " export gas pipeline
- Condensate export facilities
- Sulfur export facilities

TRAINING OBJECTIVES

- To train and develop South Pars Gas Company (SPGC) personnel to commission, start-up, operate and maintain the integrity and safety of the onshore and offshore facilities in the framework of the buy-back contract.
- To train and develop 'Support Personnel' (non technical) and create a special Refresher Programme for 'Experienced Personnel' from NIGC.

Resources

- ✓ 650 fresh graduates with university degrees in Engineering, Administration, Finance,... but without Oil & Gas experience and minimal Industrial exposure. (450 TSP – 150 other phases)
- ✓ 110 NIOC experienced personnel assigned to Supervisory positions
- ✓ Training Management / instructors:
All training personnel, except the Training Manager were Iranian (60 +)



SOUTH PARS PROJECT TRAINING LOCATIONS



4 Training Centres were set-up in different regions of Iran.

The training centres were set up inside existing Technical Institutes with the collaboration of the Ministry of Oil (Petroleum University of Technology: Mahmoud Abad, Isfahan – Shaheed Abaspour university: Tehran).

*Utilisation ressources pedagogiques internes.....?

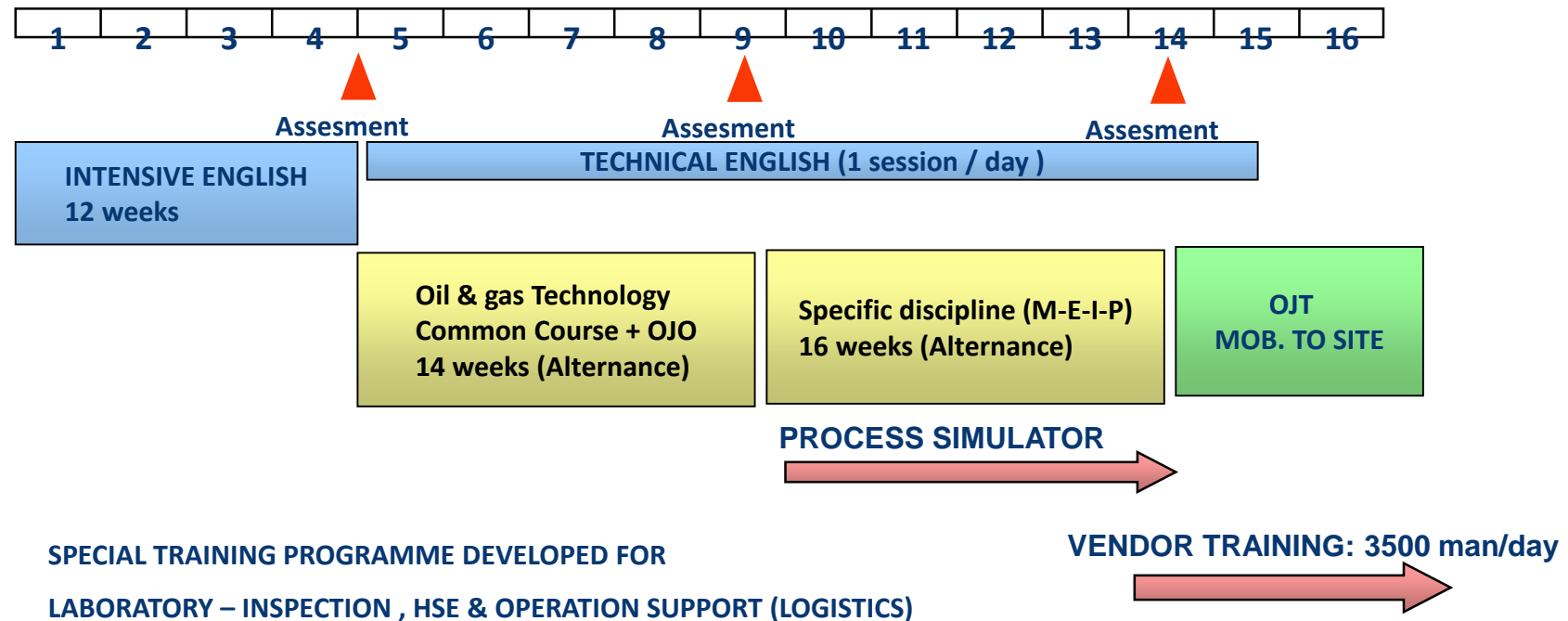
NIOC –NIGC refineries and gas plant have been utilized for OJO (on job orientation) and OJT (on job training).

Assaluyeh. Total South Pars/SPGC Technical Training Centre (8 classrooms – 1 Simulator (RSI))
+ PFSTC (Pars Fire & Safety Training Centre) + FF ground

TRAINING STRATEGY

Development of 4 major 'skills' required in the Petroleum Industry

- ▶ English Language
- ▶ Oil & Gas Technology
- ▶ Specific Technology (related to the plant to be operated)
- ▶ Technical Competence developed through On-Job-Training Programs



SOUTH PARS TRAINING RESULTS

- Following 16 months of intensive training the technicians moved on to participate to the commissioning and start up of the plant. Recruited technicians are able to operate the plant in a safe and efficient manner.
- Take full advantage of NIGC experienced personnel and High Potential trainees to occupy “key positions” as early as possible (prior to transfer of operatorship).
- At the transfer of operatorship, all heads of department and below positions (Phase 2&3) are 100 % occupied by the TSP ex-trainees.
- TSP Ex-trainees have been promoted to mid-management positions at other phases, due to their competence and know-how.

Lessons to learn

- Academic level and motivation trainees
- Experienced Training instructors not available but existing trainable personnel.
- Iranian instructors = no cultural problem – versatile and committed
- Support TSP and SPGC management
- Assistance and support NIGC –NIOC Refineries and Gas plants.
- Budget and large delegation of authority
- Positive attitude Total personnel toward Transfer of know-how and development Iranian personnel

But

- Level of English (trainees and instructors)
- Attitude negative TSP contracted personnel - Attitude negative small number of Iranian personnel (non technical).
- External OJT (outside Iran)