



OTC 19258

A General Overview of a Great Project Built in Brazil

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This paper was prepared for presentation at the 2008 Offshore Technology Conference held in Houston, Texas, U.S.A., 5–8 May 2008.

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Abstract

This paper aims to present the main points related to the construction of a huge project in Brazil. PETROBRAS 52 (P-52) is a semi-submersible platform installed in Module 1A – Phase 2 of the Roncador Field, located in the Campos Basin, Brazil, which will produce 180,000 barrels of oil and compress 7.5 million N/m³ of gas daily.

Due to the national industry situation caused by a recent past without similar projects, it was necessary to substantially revitalize the naval and offshore local market (including equipment, valves, piping, bulk materials, engineering and construction).

The main contractual requirements, such as gains obtained with the Early Detailed Design and the construction shared in modules will also be presented.

In a general overview of P-52, this paper will highlight the main solutions adopted, such as the strict inspection program in equipment vendors, introduction of the minimum requirements of local content, etc.

In addition, it will be described a critical operation called Marine Deck Mating, when the hull was connected to the topside of the platform. The most important lessons learned of this operation will also be commented.

Introduction

Before P-52, many important Units of PETROBRAS were built in other countries, such as Singapore, Korea, Spain, etc. During this period, the Brazilian naval and offshore industries lost great part of his capabilities to provide larger projects.

After 2003, the Brazilian Government has decided to revitalize this industry, including Minimum Local Content Requirements in the Platforms' Contracts. Demands to concretize the change of this scenery have been very significant to Brazil. First of all, there was no skilled labor and qualified people to provide services with the high level of quality required for Petroleum Industry. The lack of Human Resources could be applied not only for the Construction & Assembling activities but had to be extended for engineering activities, for example. The second one was related with the long period of non-significant activities for National Industries in the Petroleum area. Considering that most part of the equipment and materials to be used in the previous projects have been supplied by companies installed in other countries, there were no reasons to develop the Brazilian Industries capacity. However, the inclusion of Local Content Minimum Requirements for P-52 and its further projects has modified completely this situation.

In order to solve or minimize the impact in the future projects, the Brazilian Government has created the Program called PROMINP ("Programa Nacional de Mobilização da Indústria Naval e do Petróleo e Gás" - National Program to Improve the National Petroleum Industry). This program started in 2004 and it has been very relevant to concretize the success of the recent projects in Brazil, mainly the P-52 and P-54, other production Unit installed in Roncador Field. This program has detected and identified the most important necessities of the industry, acting before the occurrence of the lacks.