Evening Lecture
Jointly Organised by The Joint Branch of RINA & IMarEST
and
Centre for Offshore Research & Engineering (CORE), National University of Singapore

“Adaptation of Floatover Installation of Large Integrated Decks to Floating Substructures”

By Dr. Naiming Chu
Installation Manager - PTTEP Arthit Project, Kellogg Brown & Root

Date: Wed 11 January 2006
Time: 6.30pm to 7pm Registration & Refreshments
Talk begins at 7 p.m.

Venue: Seminar Room EA-02-11, Faculty of Engineering, National University of Singapore
(see attached map)

Please see the attached documents for the abstract of the talk and biography of the speaker.

Please confirm with Ms. Yati / Ms. Judy (ASMI) by Mon. 9 January 2006 via the reply slip.

Dev Dutta, PhD, C.Eng.,FRINA
Chairman, Technical Sub-Committee
The Joint Branch of the RINA and the IMarEST (Singapore)

REPLY SLIP (Fax No. 6273 1867; Tel No. 6270 4730; E-mail: council@rina-imarest.org.sg or Wenie Chua at cvecbe@nus.edu.sg)

Yes, I would like to attend the talk

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Adaptation of Floatover Installation of Large Integrated Decks to Floating Substructures

ABSTRACT

There are a few different technologies that have been used in floatover installations. Safety, economics and reliability are still the primary challenges for offshore installation. The technology used for the Malampaya 11,500MT and the Wandoor 6,500MT integrated decks is proven, and has successfully fulfilled these challenges. This presentation will describes the techniques used in the successfully mating of large integrated decks onto fixed substructures in open (unsheltered) waters.

The method described utilizes a single barge to carry an integrated deck. Docking/undocking mooring and tow tugs are used to manoeuvre the installation barge into installation position. Moorings and fenders are used for keeping an installation barge in an accurate position. Elastic pads in both the Deck Support Units (DSU) and the Leg Mating Units (LMU) are used to reduce dynamic impact load during the offshore installation. Ballast system is used to ballast down installation barge and lower down the integrated deck on to pre-installed sub-structure. Sand jacks are the mechanism for lowering the integrated deck into final in-place position.

Challenges, requirements and benefits for adopting the method used for floatover mating with a fixed substructure to a floating substructure, such as a SPAR, TLP or a semi-submersible are highlighted. This method is shown to be applicable for reducing schedule and cost risks for deepwater projects, the same way it has been utilized for previous shallow water cases.

About the Speaker

Naiming Chu obtained his B.Sc. from Dalian University of Technology and Science, Dalian, China in 1982 and his Ph.D. from University of Strathclyde, Glasgow, Scotland in 1987. He is currently working as the installation manager for the PTTEP Arthit Gas Field development Project.

He has also worked as a team leader for Arthit 2A detailed engineering design project of PTTEP, East Area Project of Exxon Mobil, Malampaya full Field development project of Shell, Bayu Undan project of Philips, Cossack Pioneer project of Woodside and Wandoor full field development project of ExxonMobil.

He has many years of engineering, offshore installation and academic research experience, which spans from the topside loadout, transportation, and offshore float-over installation to FPSO, SPM semi-submersible, deepwater mooring system, dynamic positions system, fatigue assessment and hydrodynamic analysis. The professional experience covers areas in relating to detailed and front end engineering design and analysis, project management, planning, cost estimate, interfacing with fabrication, loadout, transportation and installation contractors.