

Case Study

Tekla Structures: Ideal Solution for Offshore Industry

The Halfdan Platform

Halfdan BB is an unmanned platform situated in the North Sea at a location where the depth reaches 50 m. The platform's substructure consists of traditional tubular cable profiles which are welded together to form a tower lattice with three arms joined below

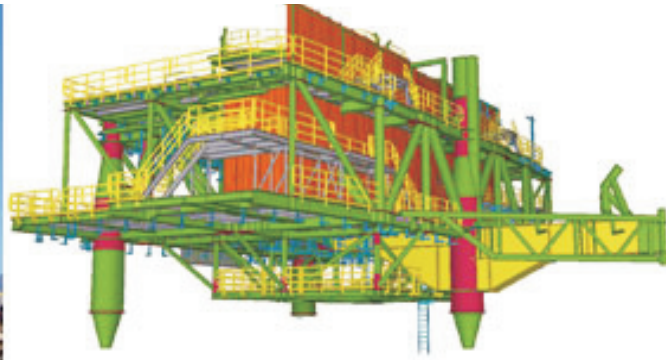
to the foundation pylons. The deck is supported by the jacket's three pillars which are spaced apart at a distance of 18 m. All of the technical equipment is situated on the deck along with the platform's auxiliary services. The platform also supports a bridge to the other two platforms installed in the same area.

The design of the deck structure was done with Tekla Structures right from the early stages of the project. Modeling began with the main steel structure as soon as the calculations were completed on the computer.

The model encompassed all of the

TEKLA STRUCTURES TECHNOLOGY ALLOWS

- Model and detail offshore structural steel projects - including Jackets, decks and flares.
- Design, fabricate & manage offshore structures.
- Collaborate & share design & detailing data, material requirements and project status through the model from design to erection phase.
- Integration with all offshore Industry programs, such as PDS, PDMS, SP3D etc.
- Create high quality 2D drawings that update as the model changes.
- Generate accurate, detailed BOM's.
- Supply an accurate model to your fabricator - ready for shop detailing and manufacturing.
- Communicate with sub-contractors using model-based RFI and shop drawing review.
- Allows the project owner to have a full control of the project progress.



reinforcements and minor elements such as the connecting joints welded between the main beams. As soon as information about the equipment was available, the designers moved on successively to the secondary structures with all of the required detailing.

The Awa-Paloukou Platform

The Awa platform is a structure used to extract fuel oil with 12 slots. It is installed offshore from Congo at a depth of about 76 m. The jacket consists of a frame structure with four arms which

are positioned over four preinstalled foundation pylons and securely attached to them. The deck is supported on the four arms of the jacket. Its total weight during operating conditions is about 3000 t.

On the western side of the deck, a cantilever flare extends over about 60 m. Tekla Structures was used to model the entire structure including the jacket, deck and flare. The 3D model of the entire platform was also used to characterize all of the other structural

components, provide lists of needed materials, monitor the weight and the position of the center of gravity, and prepare the project plans and workshop detailing. ■

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NTPC to Offer Stakes to Get LNG from Qatar

In order to attract the gulf nation, which would bring in gas for the plant, NTPC is proposing to offer them stakes in projects at Kayamkulam in Kerala and Ratnagiri Gas and Power private limited. Commenting on the gas based projects with the Qatar government, Inderjit Kapoor, commercial director of NTPC, said in Confederation of Indian Industry meeting that NTPC showed interest in providing them equity in gas-based power projects in India and bringing LNG from there. In this regard, a delegation of NTPC also met the Qatar government. Mr Kapoor said that the Qatar government is keen on the project and NTPC expects it to be worked out before 2012-13. During the visit of Sheikh Hasina, Prime Minister of Bangladesh, India and Bangladesh had signed a MoU to form an equal joint venture between NTPC and BPDB to develop two power



projects of about 1,320 MW. NTPC Chairman and Managing Director Arup Roy Choudhury mentioned

that it would commence work on the 2x660-megawatts (Mw) Khulna plant, by May 2011.