

## **HYDRATIGHT ensures flange integrity on new offshore gas platforms**

*Specially developed Joint Integrity Management System (JIMS) employed to safeguard continued offshore maintenance of high pressure flanges to avoid leakages or time-consuming reworking of flanges.*



Hydratight has successfully completed a contract for the employment of the Joint Integrity Management System (JIMS). This was to ensure leak free high pressure joints were achieved and recorded throughout new offshore gas platforms being built in the Gulf of Mexico. Hydratight, the industry leader in bolt tightening technology and systems, supplied their latest RSL hydraulic torque wrench tooling together with maintenance services.

Initially, Hydratight was tasked with supplying equipment and manpower for the controlled tightening of high pressure flanges of over 600 lbs and to provide a detailed and permanent record of each and every flange worked on. A total of 4000 joints on site were initially tightened. Only 14 or 0.35% showing any sign of leakage. After reworking and pressure testing all flanges were acknowledged as leak free. In addition to the initial high-pressure flange contract undertaken by Hydratight, many lower pressure flanges had been hand tightened by the resident work force. As with any uncontrolled application of torque a high percentage of these flanges leaked, necessitating time-consuming reworking. Hydratight RSL tooling was then used to control the tightening of the lower pressure flange bolting to ensure no further leakages. Hydratight recommended the 2 3/4" bolts in each flange be replaced and hydraulic bolt tensioning employed. This tactic proved successful with leak free joints being recorded at the first pass, proving the speed and effectiveness of tensioning over torque where large stud bolts are used.

The implementation of the Hydratight system of controlled bolt tightening using modern tooling and competent technicians was fundamental to achieving leak free joints at initial commissioning, providing obvious benefits in the form of reduced costs and improved operational and safety issues.

Additionally, Hydratight's JIMS system offers further benefits throughout the operational life of the platforms. Any flange that needs to be broken out in the future has available all essential details of its physical properties and how, when and by whom it was assembled. Employing Hydratight's JIMS methodology, each flange was recorded in detail on a permanent data system that could be utilised on the gas platforms throughout its life. Records can range from steel tags attached to each flange to a computerised database.

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