



Engineering
GREAT Solutions

Solving the problem of ice build-up in LNG facilities

The challenge

The plant operator suspected that process changes in the plant were causing ice formation in the disk stack that reduced the valve flow capacity (Cv). Over a period of time, the valve flow capacity continued to decrease with increased stroke affecting their production. As an interim solution, the operator shut down the unit to allow the valve to return to ambient temperature before restarting the unit. As this affected the production, a quick solution to this challenging technical issue was needed. Thanks to a longstanding relationship with the operator, they turned to IMI CCI for a solution.

The solution

IMI CCI deployed one of its highly experienced Valve Doctors® to analyse the

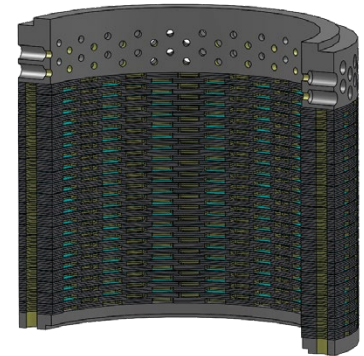
problem and propose a solution.

Having had previous experience of solving similar problems at other LNG facilities, IMI CCI proposed a hybrid cage design that had disk stacks at the bottom with larger passages and an anti-hydrate cage at the top with counter-bored holes to prevent ice formation.

Previous experience at LNG facilities helped IMI CCI turn around a technical recommendation and quote within just two days. Although the technology is tried and trusted, the valve design needed to be highly customised to meet the precise operating environment seen at the site.

The customer confirmed their order within days, and the new large passage disk stack and anti-hydrate cage was delivered in just five weeks, to co-ordinate with a planned outage at the plant.

Thanks to the technical expertise of IMI CCI, and the swift turnaround of the new parts, the plant can now run at higher loads and for longer periods of time without any reduction in capacity.



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