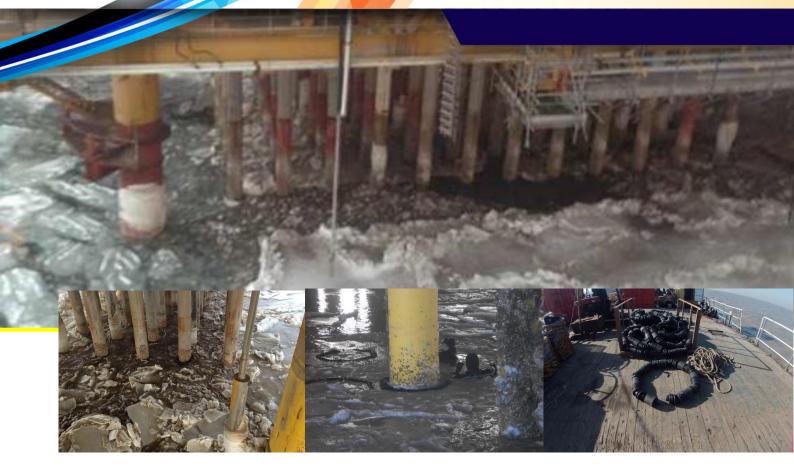


BACKSTORY: THE BIRTH OF THE TYPHOON-PROOF "OCEAN-POWERED" MARINE GROWTH PREVENTER MGP-i



REMINISENCE

Back in 2012, IEV was approached with a unique enquiry from East Asia which eventually led to the birth of the new generation of Marine Growth Preventer, the typhoon-proof and self-cleaning MGP-*i*. IEV's Marine Growth Preventer (MGP) technology was first invented in 1987. Throughout the years, the MGP has undergone improvements to cater for various ocean conditions and structural configurations, each improvement resulting in increased product durability and naturally, cost savings to asset operators.

In the MGP history, the most notable breakthrough, however, took place in 2012, when a client posed a unique challenge that required the MGP to operate in icy-ocean conditions to both control marine growth and protect conductors from direct impact of ice sheets during winter periods. Hence, began a journey of intensive research and development, resulting in a new generation of product designed to withstand impact of ice-sheets and equipped with self-cleaning features to prevent marine growth on the product itself. The MGP-*i* was born.

In the same year, the prototype version of MGP-*i* was introduced and installated as a pilot test on selected conductors and jacket leg members at the site. Simultaneously, the anti-impact ("AI") design was put through a series of drop-test witnessed by an established third party certification body. The drop test was done to simulate typhoon impact, which confirmed that the MGP-*i* successfully withstood the Beaufort force 12+ and was certified "typhoon-proof.

For more information about this project, kindly email to info@iev-group.com

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A SUCCESSFUL TRIAL

The pilot proved to be a success and IEV was awarded a full commercial project at the same site in September 2014, in which more than 170 MGP-*i* were installed in the splash zone area of 6 platforms, an area which is most prone to marine growth colonisation and wave loading.

Twenty (20) months later, the Client was pleased to share that the MGP-*i* was found to be intact while maintaining zero growth profile on the splash zone level of all the protected members.

FAST FORWARD 2021

It has been 7 years since the first commercial product was installated. In August 2021, the Client has procured additional MGP-*i* to be installed on conductors at the same site, reflecting another vote of confidence.

As Albert Einstein famously quoted: "To raise new questions, new possibilities, to regard old problems from a new angle, requires creative imagination and marks real advance in science", we are glad to be given the opportunity to provide a solution for this challenge and today we are able to offer the industry a newly patented generation of typhoon-proof and self-cleaning Marine Growth Preventers that are designed for 100-year storm of offshore structures. Since 2014, over 1,300 MGP-*i* have been supplied to over 80 offshore platforms worldwide.



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