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RETROBUOYS™ INSTALLED ON HARMONY, HERITAGE AND HONDO: SANTA YNEZ, CALIFORNIA

21 RetroBuoys™ to extend the platforms' lives another 25 years.

Deepwater was contracted to provide an ICCP retrofit on the Santa Ynez Unit platforms Harmony, Heritage and Hondo, located five to nine miles offshore west of Goleta, California. They are three of the deepest platforms in the world (Hondo is 850 ft, Heritage is 1,075 ft and Harmony is 1,200 ft) and this marked the largest offshore ICCP retrofit ever undertaken in a single campaign.

The structures were built in 1976 (Hondo) and 1989 (Harmony and Heritage) and the ICCP sleds from previous retrofits (installed in 2002, 2011 and 2012) had already proved inadequate to polarize the platforms' jackets below depths of 800 ft; by 2016, output had further diminished as components of the systems had begun to fail.

A higher-capacity system was needed, and the decision was made to reuse as much of the existing equipment as possible – such as rectifiers and I-tubes – to help minimize costs.

Anode junction boxes located topside were raised another 11 feet to prevent flooding during high seas.

In all, the three structures were fitted with 21 RetroBuoy™ anode sleds for a total of 21,000 amperes of current output capacity. Because the number of systems to be installed was so great, they could not be transported together in one campaign. Instead, all of the sleds along with their cassettes were brought aboard Harmony beforehand via standard transport vessel and were backloaded in the field for placement, thus avoiding costly return trips to the dock by the installation vessel. The RetroBuoys™ were installed and inspected in a span of 17 days from port to port.

The system was inspected, tested and energized to re-polarize the structures, which resulted in an immediate average shift of 118 mV, plus an additional 58 mV shift after one year of operation.

More info at www.stoprust.com



OUT OF HARM'S WAY

Junction boxes were raised an extra 11 feet to prevent flooding in high seas.



A MODEL INSTALLATION

Optimal RetroBuoy placements were determined by CP modeling beforehand.



ONE DOWN, TWENTY TO GO

Positioning a RetroBuoy™ for deployment in the largest offshore ICCP retrofit ever done in a single campaign.



SAVING MONEY WHILE SAVING STRUCTURES

Still-functional elements of the existing ICCP system were re-used to cut costs.