SAFESAFETYARERT



Safety Alert No. 319 February 29, 2016 Contact: Jason Mathews Phone: (504) 731-1496

Chemical Injection Point Corrosion Causes Production Header Failure



Recently, an 18-in low pressure production header on a producing platform in the Gulf of Mexico failed under normal working pressure. The failure ruptured the header, opening a 10-ft long split and releasing production fluids at a pressure of 250-psi. Three workers were sprayed with production fluid and approximately 25 bbls were released. The event resulted in the evacuation of the platform.

An investigation by BSEE concluded the failure was caused by a corrosive loss of pipe integrity immediately beneath a chemical drip injection point used to introduce an acidic demulsifier into the flow stream. Over time the demulsifier corroded away approximately 50-percent of the metal thickness of the pipe below the injection point.

BSEE concluded that the proper procedure would have been to inject the acidic demulsifier into the pipe using an injection quill. The injection quill would have introduced the demulsifier into the middle of the flow stream keeping it from continually impacting the pipe wall in proximity to the injection point.

BSEE recommends that Operators develop procedures ensuring the proper use, installation, and

verification of chemical injection equipment. We also recommend that Operators conduct both visual and non-destructive testing of all corrosive chemical injection points to verify that the recommended injections quills are installed and that the existing piping has not



been compromised by the injection process.

A Safety Alert is a tool used by BSEE to inform the offshore oil and gas industry of the circumstances surrounding an accident or a near miss. It also contains recommendations that should help prevent the recurrence of such an incident on the Outer Continental Shelf.