



PRESS RELEASE

Contact:
Dr. Angela Summers, President
SIS-TECH
inft@sis-tech.com
asummers@sis-tech.com
281/922-8324

FOR IMMEDIATE RELEASE

SIS-TECH announces DIAMOND-SIS High Integrity Protective System (HIPS)

The DIAMOND-SIS HIPS provides overpressure protection for reactors, pipelines, and pressure vessels.

Houston, Texas - March 10, 2010 — SIS-TECH announces the DIAMOND-SIS High Integrity Protective System, a low-cost, standalone logic solver certified for use in applications up to Safety Integrity Level (SIL) 3. The DIAMOND-SIS HIPS is used to provide overpressure protection for scenarios where the opening of the pressure relief valve poses unacceptable process safety risks.

API 521 and Code Case 2211 of ASME Section VIII, Division 1 and 2 allow the use of a High Integrity Protective System (HIPS), such as the DIAMOND-SIS HIPS, in lieu of a pressure relief device, as long as the instrumented system meets or exceeds the protection provided by the pressure relief device. To achieve this performance, the HIPS design and management must also follow IEC 61511 and the logic solver should be compliant with IEC 61508 SIL 3.

The DIAMOND-SIS HIPS is an SIL 3 logic solver with 2oo3 voting, which provides the end user with a fault tolerant logic solver that is physically and functionally independent from the process control and unit safety instrumented system. With the Diamond-SIS HIPS, each vessel or pipeline is independently protected against overpressure such that no single HIPS failure results in simultaneous overpressure of multiple vessels or pipelines. By using an independent logic solver for each HIPS, the potential for common cause failure impacting multiple process units is significantly reduced.

In a typical installation, the DIAMOND-SIS HIPS takes inputs from multiple sensors that can detect abnormal process operating conditions. The logic solver

processes the inputs and sends the necessary outputs to final elements such as block valves or pumps.

The DIAMOND-SIS HIPS is rated for -30°C to $+75^{\circ}\text{C}$ and suitable for installation in Class I Div II environments, allowing it to be installed in the field near the process equipment, reducing the implementation costs typically associated with systems using cabinet-mounted safety PLCs.

The DIAMOND-SIS HIPS is used in many overpressure protection system applications, such as wellhead piping protection, where electric submersible pumps (ESP) are installed for enhanced oil recovery. In these applications, the unintended block-in of the ESP initiates a scenario where the maximum discharge pressure from the pump exceeds the maximum allowable working pressure of the downstream piping, potentially rupturing the pipeline. Traditional overpressure protection with a pressure relief valve results in a discharge that cannot be effectively managed. Instead, the DIAMOND-SIS HIPS is used to detect high pressure and to shutdown the ESP, preventing pipeline overpressure.

HIPS are now accepted for vessel protection with the latest release of API 521 and with the recent update to the ASME pressure vessel code. The Minerals Management Service (MMS) has approved HIPS as a new technology application for off-shore installations in the Gulf of Mexico. Papers describing various HIPS applications can be downloaded from www.sis-tech.com.

#

ABOUT SIS-TECH

SIS-Tech is committed to providing our customers with the best safety related products and systems in the industry. Our thorough understanding of safety instrumented systems allows us to design and build products that meet all requirements and standards. Our products are easy to use, cost effective to implement, and extremely reliable. Our deep knowledge of the process industries enables us to always design products with the application in mind.

SIS-TECH

12621 Featherwood Drive, Suite 120, Houston, TX 77034 USA

281-922-8324 (phone)

281-922-4362 (fax)

www.sis-tech.com