

BLYTHE AND VULCAN SATELLITE HUBS

Blythe Tie-in Concept / Front End Engineering

A probabilistic study was conducted to consider potential fire and explosion events at the Bacton Terminal from additional inventories associated with the proposed Thames pipeline reinstatement and its tie-in at the Bacton facility.

Project Name

Blythe Tie-In Concept / Front End Engineering

Client

Perenco

Location

Bacton Terminal, UK

Date

June 2018 - January 2019

PHAst software including the role of time varying releases and blowdown to control and mitigate such events. Further event tree analysis considered the probability of these systems in controlling the consequences and associated frequencies.

The influence of existing inventories to contribute to event frequencies was also included in the analysis.

Various recommendations were identified relating to protection of plant and equipment, but also the need to further consider offsite risks and re-evaluating the Emergency Isolation and Blowdown arrangements to reduce the isolatable section inventories as a means of avoiding other potentially more expensive mitigation measures.

The proposed pipeline re-instatement (operated by ODE Asset Management and owned by IOG) will bring production from CNS areas Blythe and Vulcan to a previously decommissioned part of the Bacton terminal.

ODE Tech Safety conducted a fire and explosion risk assessment to identify credible jet fire, pool fires, Vapour Cloud Explosions and flash fire events at the terminal - assessing their likelihood and potential for impact and escalation together with the identification of mitigation measures.

The analysis used the latest advances in

