

# Risk based software

PP SIMTECH has signed an agreement making available the Risk Based Integrity (RBI) assurance process and the supporting software rbiAsyst to all BP sites worldwide, following a development partnership with BP Saltend.

RBI assurance is a process used to understand the risk profile of equipment throughout its lifespan. This helps to predict and determine weaknesses as a result of deterioration and put in place strategies to manage and reduce potential risks.

RBI work was piloted at the Saltend site in 2001 before being developed into a project in 2002, and because of its success, RBI will be ongoing and has been embedded into normal site practice.

The diverse nature of the metallurgy, various corrosion and other damage mechanisms applicable to many of the plant items at Hull meant the chosen RBI assurance methodology had to be up to the task technically. "The concern was that if these issues and other best practice considerations associated with correct application of RBI technology were not comprehensively covered, then we would miss out on improvements to safety and reliability," says Hull site Engineering Integrity Manager, John

Verdon-Smith.

After a rigorous selection procedure, Hull awarded specialist RBI company, PP SIMTECH, the contract to provide the technology process and implementation support. This process included an innovative and sound technology platform to reliably assess equipment item risk profile thus ensuring the resulting inspection interval and inspection plan are correctly optimised for each item of plant and process operating limits better defined.

Working in partnership, BP and PP SIMTECH have further developed the technology culminating in an unparalleled RBI driven integrity assurance process which now ensures safety and reliability of plant items are improved and not compromised, while achieving the generic financial benefits linked with RBI. Verdon-Smith also championed the joint development of the RBI Assurance System software, rbiAsyst, to support this breakthrough in RBI technology application.



This meaningful risk assessment intelligence, gathered by RBI multi-discipline team study process, allows site personnel to have better understanding of equipment vulnerabilities, deliver correctly optimised inspection plans and capture valuable knowledge to benefit the whole of the BP group.

Don Cawthra, DF Development Engineer and member of the multidiscipline RBI study team says, "This RBI assurance process allows optimum inspection interval and better operating limits to be determined using all known data. This means that work is only carried out when required saving time, money and more importantly potential accidents. It also means that environmental performance can be improved, its main impact is 'being in control'."

During the early project phase this RBI assurance process was

reviewed and endorsed by an independent peer group. It was successful against subsequent audits carried out by the UK Health and Safety Executive (HSE) and also meets the essential requirements of the RBI Best-practice Guide issued by the HSE.

"We believe that Saltend site has addressed RBI in a very comprehensive and professional way and we are investing a lot of effort into it and getting a lot out of it," Verdon-Smith says. "It has had good buy-in and support from the Manufacturing teams which has been really encouraging. We have already seen evidence that the new inspection programs are providing increased integrity assurance."

For more information about this RBI assurance process, contact John Verdon-Smith on [john.verdon-smith@uk.bp.com](mailto:john.verdon-smith@uk.bp.com) or Ron Selva on [ronselva@ppsimtech.com](mailto:ronselva@ppsimtech.com).

# HRTC

In response to projected changes in the focus of technology development needed by the Acetyls business and BP Group, and to take advantage of the constant innovation in the ways technology developments are delivered, Hull Research and Technology Centre (HRTC) is transforming into a sustainable and flexible research and technology resource to meet the future needs of the Acetyls Business Unit and the BP group.

Due for completion by 2008, the transformation encompasses organisational change, developing

new ways of working and changing the culture and environment of HRTC. As Charles Darwin pointed

out: - it's not the strongest that survive but those who adapt best to the changing environment

The early part of 2006 saw many of these changes begin in earnest. The individuals to drive through the 2008 organisation were appointed in February. The transitional organisation for 2006 was announced in March, and became operational in May, with the formation of a Gas-to-Products (GTP) research group in Hull. Part of the Exploration and Production Segment, this presents HRTC with an exciting opportunity to diversify work programmes into areas that will have an impact across the whole of the BP Group

April saw the first meeting of the newly formed HRTC Governance Board, composed of members from both the Acetyls and Gas-to-Product (GTP) technology leadership teams.

The board's objective is to provide joint ownership of the long-term capability, development of people and infrastructure of HRTC, ensuring consistency across teams irrespective of which business they are supporting.

These changes will ensure that HRTC maintains its capability as the leading BP centre for process research and development for chemical processes particularly those producing or converting Syngas.