

TEXAS CITY: FUTURE FOCUSES

Following extensive maintenance, a new chapter is opening in the history of BP's Texas City refinery.

Neil Geary reports on the new 'focus on the future' plan to improve safety and performance

BP'S TEXAS City site has made significant progress towards becoming a safe, simplified facility that returns consistent, dependable business results.

After a business quarter that saw the release of the firm's final report on the 23 March 2005 accident, as well as local hearings and visits from the US Chemical Safety and Hazard Investigation Board and from an independent safety review panel headed by former US Secretary of State James Baker, and the cold aftermath of a hurricane near-miss, an aggressive 'focus on the future' plan is under way.

After extensive maintenance, Texas City safely restarted its steam system in December, and by early 2006 the site was approaching the commissioning of initial gasoline production.

The steam is a key power source to the 460,000 barrels-a-day refinery, the third largest in the US.

Texas City began the fourth quarter of 2005 completely cold for the first time ever following an evacuation and safe shutdown of the refinery in anticipation of a direct strike from hurricane Rita.

While Rita took a turn away from the refinery, there was still significant wind damage to the refinery's insulation. Some of it contained asbestos, in particular the plant's 43km (27-mile) steam system. Colin Maclean, Texas City business unit leader and plant manager, began executing the business recovery plan developed off site as the hurricane passed.

Steps included confirming 'safe-off' of all units and using the shutdown to advance an ongoing safety and dependability initiative for the entire site. Establishing a core gasoline footprint with steps towards producing gasoline at full rates were also part of the recovery plan.

Achieving 'safe-off' of all units was crucial to allowing people back on the site and involved a formal hand-over from the Rita incident management team (IMT) back to operations.

"Our crisis managers did an amazing job conducting a safe evacuation of the site, assuring the safety of more than 200 people at off-site locations, and managing those who stayed on site to handle the hurricane," says Kathleen Lucas, operations



It took 160,000 man hours to start up the Texas City steam system

manager. "But only when full safe-off had been achieved did operations resume."

Dealing with the impacts of Rita would require extensive repair and maintenance of the plant's steam system and on many gasoline production units. Inspection revealed extensive damage to the plant's insulation and piping. Because of the age of much of the insulation, some of it included asbestos and required a cautious approach to both inspection and insulation repair.

Multiple asbestos abatement teams worked long shifts to complete the job and constant air monitoring was required. A tight interaction between site health, safety, security and environment (HSSE) and maintenance was required virtually around the clock during the repairs.

"Initially, inspection teams walked the entire length of the steam system to determine the scope of the work," says Darryl Bertram, site maintenance manager.

During the course of inspection, the scope of work required to safely start up

the steam system grew from an estimate of 30,000 man hours to the 160,000-plus hours that were actually taken.

Start-up of the steam system began on 2 December with initial generation of steam at green power stations and initial production of steam into the BP OSBL lines. Within two weeks, steam had entered individual unit lines, permitting mechanical work on process units selected for initial commissioning.

Although shutdown of the refinery occurred at a time when two hurricanes ripped through the Gulf Coast, closing many other refineries, Texas City converted its docks into an import terminal.

The site turned its gasoline blend stocks into finished product.

"We were able to be innovative with material on hand and, with some additional imports, blend and ship much needed fuel to customers," says Susan Dio, commercial manager.

In the weeks after Rita, the programme office—decided to initiate the 'focus on the

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future' programme—and co-ordinate investment initiatives for creating a new Texas City—further advanced site priorities, and conducted the presentation to the Baker panel.

'Focus on the future' is a comprehensive plan made up of 29 initiatives that will impact every aspect of site operations. Objectives include safe and reliable operations, new HSSE policies, worker training and resource management.

"The future plan for investment links initiatives from our Occupational Safety and Health Administration agreement and recommendations from our own BP final report with 'focus on the future' plans to create a safe and simplified site," says Tim Wilk, programme director.

In October, BP named members of the independent panel established to review safety culture at BP's North American refineries in response to a recommendation to BP from the US Chemical Safety Board. The panel held a public hearing in Texas City on 22 December and visited the BP Texas City site for a tour of the refinery and discussion with management.

"It was an open and fruitful discussion," Maclean says. "We provided information about changes taking place at Texas City."

Early in December, BP issued its final report on the accident at Texas City.

The company is implementing the rec-

OPENING OF THE TEXAS CITY OFFICE

Concurrent with the work on the refinery, the new Texas City Office (TCO) was recently completed and opened. The office required the complete renovation of more than 9,300 square metres (100,000 square feet) of old retail space in a former Wal-Mart/K-Mart building. "The TCO opening kept a major promise of BP to move employees not directly required at the refinery off-site," said Denise O'Brien, facilities and services manager. "An excellent architect and safe contractors have created a world class office space. Completed in little more than 100 days, it is becoming a major economic anchor in Texas City."

ommendations of the incident investigation team and will undertake a modernization programme to secure the long term future of the refinery.

The company expects to invest an estimated \$1 billion dollars to improve and maintain the site over the next five years.

"The report clearly describes the underlying causes and management system failures which contributed to the worst tragedy in BP's recent history," a company statement says.

BP says it accepts the findings and is working to make Texas City a complex that attains the highest levels of safety, reliability and environmental perfor-

Colin Maclean: 'It's clear this Texas City will never be the same and what we do and say matters.'

mance. Many of the actions recommended by the investigation team have been completed and many are under way. Maclean's leadership team is driving execution.

Among actions underway are the installation of process control systems on major units and the transition to a more powerful maintenance management system, and improvements in worker training. The project team is also reconfiguring and simplifying the operation of the refinery.

Rod McCracken, Texas City site chief of staff, addressed a changing mindset in which people are encouraged to stop work that is not being done safely. He says it is important for people to further engage the right areas of expertise and technical support in making decisions.

And McClean concludes: "We are commissioning the new Texas City [refinery]. It's clear that this Texas City will never be the same, and what we say and what we do matters."

refining and marketing news in brief

India

Cutting edge

Castrol India has unveiled Castrol EDGE—a synthetic, premium quality engine oil. Launched at the Auto Expo 2006, the new 5W 40 oil is formulated to perform across seven engine functions: protection against wear, longer oil life, performance in extreme conditions, engine cleanliness, fuel economy, protecting the car's power and thermal control.

US

Nikiski testing

The gas-to-liquids (GTL) plant at Nikiski on Alaska's Kenai

Peninsula will continue testing operations, according to Paul Jacobson, plant operations manager. When BP first put the plant into operation in the spring of 2003, it was expected that proving the technology would take 12 to 18 months. Jacobson said the plant would continue operating as long as the work adds value to BP's worldwide GTL initiatives.

Global

Top marketer

Air BP has been named the world's top international jet fuel marketer, according to a survey. The poll by US-based publishing and consulting

group Armburst Aviation also ranked Air BP best for marketing in Europe and Africa and the Middle East. The airlines surveyed account for 70% of the world's total annual jet fuel volume. Dev Sanyal, Air BP chief executive officer, says: "Air BP is very pleased to be recognized by the airlines. We



pride ourselves on customer focus and commitment."

US

Games marketing

BP lubricants in the US is marketing its latest products through computer games. The business has teamed up with games manufacturer Electronic Arts for the launch of the new *Need For Speed: Most Wanted* driving game, which is seen as the ideal platform to promote the Castrol Syntec oil's superior power and performance. The Castrol brand comes into the game via billboards, car engine upgrades and signage in garages.