



## BP Texas City - May 2009

### Size and Scope of BP Texas City

- 475,000 barrels of oil per day capacity, more than 3 billion gallons of gasoline per year.
- Approximately 1,200 acres, or two square miles.
- Third largest refinery in the United States.
- Produces three percent of the nation's gasoline supply.

### Flexibility and Adaptability

- Twenty-eight process units.
- One of the most flexible refineries in the world.
- In 2008, BP Texas City processed 40 different types of crude oil from all over the world.
- Produces a wide range of products including gasoline, diesel, jet fuel, chemical feed stocks and heavy fuels.
- Gasoline blend stocks typically comprise approximately half of the product yield.

### Operations and Logistical Facts

- Receives approximately 70 percent of its crude oil via marine terminal.
- Sends out approximately 75 percent of its products via pipeline.
- Unleaded gasoline – from crude tank to product pipeline – produced in approximately 12 hours.
- A pipeline batch size of 21 million gallons is 80 miles long in a 36 inch pipe.

### Economic Impact and Importance

- More than 2,000 employees and from 2,000 to 5,000 contractors on a daily basis.
- Economic impact reaches far beyond Texas City; the American Southeast and Northeast consume our products.

### BP Texas City Commissioning Snapshot 2006 - 2008

#### People:

- Invested 60 million man-hours.
- Completely new Leadership Team.
- Hired more than 1,000 new employees.
- Expended 250,000 BP machine shop man-hours, 212,000 field machinist man-hours and 240,000 contractor millwright man-hours.
- Completely revamped training program; each employee participated in a cumulative average of 50 training days during the last three years.
- Increased environmental staffing.
- Established Compliance Manager position and related organization.
- Maintain ongoing emphasis on communication at all levels.
- Rebuilding relationship with our union, actively involving them in efforts to improve safety, compliance and reliability.

- Implementing Independent Panel 10 recommendations and USW 10 Point Plan including TOP (Triangle of Prevention) with training for all employees.

#### Plant:

- \$1 billion investment to improve safe operations and environmental performance.
- Renovated 27-mile site steam system.
- Conducted complete rebuild of PS3B and Cat 1.
- Conducted renovation of the RHU.
- Added wet gas scrubber to Cat 3 in 2007 to reduce NOx and SOx emissions.
- Added new fractionator tower to Cat 3, largest permitted move in Harris County history.
- Completed Alky 3 TAR, commissioning and repositioning, including SHU.
- Removed more than 200 temporary structures from the Site.
- Implemented site-wide transit system and removed thousands of vehicles from site.
- Isolated and removed 11 blowdown stacks and installed multiple new flares.
- Evaluated and/or installed more than 1,000 relief valves.
- Inspected 275,000 linear feet of piping.
- Conducted more than 44,000 radiographs.
- Erected and dismantled more than 51 linear miles of scaffolding, enough to scale Mount Everest nine times, at a single unit.
- Fitted more than one dozen tanks with geodesic domes to reduce benzene emissions.
- Introducing new Automated Control System at units.

#### Process:

- Instituted new Operational Model, including operations focus and cross-functional 24/7-production teams.
- Commissioned improved site-wide emergency response system.
- Conducted Pre-Start-Up Safety Reviews, and distillation and start-up schools for commissioning units.
- Implemented new Control of Work Policy and Process.
- Improved environmental testing methods and monitoring capability.
- Conducted a multi-year Comprehensive Environmental Assessment.
- In 2008, met new, more rigorous benzene waste standard.
- Initiated use of infrared technology to identify and subsequently close leaks.
- Reinvigorated maintenance accelerator, TAR and Projects CVP, Control of Work and Safety Instrumented Systems.

