BP employees Keith Lucke and D.J. Robbins

A team of 16 HPA (Hydroprocessing Associates) contract employees have been working day and night to complete the job. HPA was selected to load the catalyst based on positive prior performance at Cherry Point Refinery and their advanced loading equipment (called a “Hydropac”).

Glass jars display the variety of catalyst materials being used in the CDP reactors.

**Reactors topped off with catalyst**

It's no jelly bean guessing contest when it comes to the amount of catalyst loaded into the Clean Diesel Project's (CDP's) 15 new reactors.

"Catalyst helps make the reactions occur and it is important to get a dense and even load so we can achieve the cycle length," says BP Senior Process Engineer Keith Lucke, one of two engineers leading the selection process for the catalyst. “Our goal is to get two and a half years of performance.”

A team of 16 HPA (Hydroprocessing Associates) contract employees have been working day and night to complete the job. HPA was selected to load the catalyst based on positive prior performance at Cherry Point Refinery and their advanced loading equipment (called a “Hydropac”).

(Continued on back page)

**DO YOU KNOW?**

- The project has 15 reactors — one large reactor in the DHDS Unit, three fixed bed reactors, 10 PSA Adsorbers, and the Heater in the H2 Unit.
- The #3 DHDS (Diesel Hydro-Desulphurisation) Reactor (the refinery’s largest reactor, otherwise known as Bob), has a catalyst loading capacity of 10,200 cubic feet or 610,000 pounds.
- The #2 H2 Plant, which includes all reactors and heaters combined, has a loading capacity of 4,100 cubic feet.
Reactors
(Continued from front page)
that ensures catalyst are loaded as flat and uniform as possible.

BP's Catalyst Turnaround Head Planner D.J. Robbins says “HPA is very proficient and they specialize in catalyst loading so they are well trained in their field. Their loading technology is the best available because it can go dual speeds and both directions.”

“Our biggest challenge has been delays due to weather. You cannot load catalyst in the rain and that makes it tough in this area,” says Robbins.

Fourteen of 15 reactors in the #2 H2 Plant and the #3 DHDS Units are loaded now. The remaining H2 Heater reactor will be completed December 8-13.

5,000 MAD cards and counting
The CDP team recently took time to celebrate the success of the MAD (Making A Difference) Program with an employee breakfast. Since the program was introduced to the CDP more than year ago, more than 5,000 MAD cards have been submitted.

As part of the program, employees are encouraged to provide feedback and suggestions regarding safety or quality opportunities. Cards are reviewed twice a week by representatives from each contractor group for action or closure.

“The workforce has grabbed a hold of this tool and embraced the program,” says Brian Burre, CDP HSSE Manager. “We are experiencing a 60 percent participation rate from the nearly 500 contract employees because they see action for their effort.”

Field Installation Data (as of November 28):

<table>
<thead>
<tr>
<th>Inside Battery Limits</th>
<th>Installed</th>
<th>Budget</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aboveground Pipe</td>
<td>67,423</td>
<td>82,168</td>
<td>linear feet</td>
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<tr>
<td>Aboveground Conduit</td>
<td>68,036</td>
<td>102,346</td>
<td>linear feet</td>
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<tr>
<td>Cable</td>
<td>244,094</td>
<td>275,812</td>
<td>linear feet</td>
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<table>
<thead>
<tr>
<th>Outside Battery Limits</th>
<th>Installed</th>
<th>Budget</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pipe</td>
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<td>29,027</td>
<td>linear feet</td>
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<tr>
<td>Conduit</td>
<td>27,370</td>
<td>30,290</td>
<td>linear feet</td>
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