Talking shop with Axens

David Ulmer works for Axens North America as its vice president for catalysts and adsorbents. He's a busy guy, so we were thrilled when he carved some time out of his schedule to answer a few pressing questions we had about Axens and its recent activities. *Hydrocarbon Processing's* (*HP*) interview with Mr. Ulmer is reproduced below:

***HP:* What changes have you made since taking over Criterion's manufacturing plant in Willow Island, West Virginia?**

David Ulmer: Actually, one of our initial goals was to change as little as possible. In particular we wanted to retain the Willow Island personnel and their incredibly valuable expertise, and we wanted to maintain the excellent health, safety and environmental record that had been established at the site. In both of these areas, we have been very successful. Beyond those initial goals, we targeted to develop a cross-production capability so that we could take full logistical advantage of manufacturing sites on two continents. Those efforts have progressed significantly, and we have gained a broad understanding of the unique capabilities of the Willow Island site as compared to the original Axens manufacturing site in Salindres, France. We have much more work to do, but I am satisfied with the progress to date and the knowledge we've gained.

DAVID ULMER

Tell us more about the new CCR catalyst you introduced late last year. What differentiates it from other catalysts in the Axens product line?

Following the acquisition of Criterion's reforming business, we quickly discovered an opportunity to leverage the combined technologies to increase the catalyst selectivity and stability without compromising the activity. The result was the launch late last year of the new low density CCR catalyst, PS 100. This development will also be used for a new high density CCR catalyst in the forthcoming months.

What is the impact it has on hydrogen and aromatics yields?

Regardless of the unit targets, gasoline or aromatics, PS 100 provides for improved unit performance. For example, in a typical gasoline mode at a given temperature, we expect 1.0–1.5 wt% more C5+ and 0.10–0.15 wt% more hydrogen (roughly 60 scfb improvement) over a platinum tin catalyst. For aromatics operations, at a given temperature the nominal aromatics increase would be about 0.9 wt% with a corresponding hydrogen increase in the range of 0.15 wt%, or 70 scfb. Compared to a standard multi-promoted formulation, PS100 will allow a 15–17 % increase in feed rate at constant severity.

Where do you actually see aromatics production trending for the rest of 2012 onward?

Global paraxylene consumption should be above 40 million tons by 2015 compared to 32 million tons last year. The main additional capacity will be located in the Asia-Pacific region where the demand is the highest, followed by the Middle East region. Axens' new PS 100 catalyst should be the optimal catalyst for maximum aromatics yield.

With the purchase of the Criterion catalyst business, how did you go about integrating this product line into your existing product line?

We initially strived to avoid disruption to customers who had a preference for catalysts from either product line. We have so far maintained all products from both product lines, even though it is more complex from a logistical perspective.

In some instances, have you advised clients that are using the Axens catalysts that they would be better served with a product from the heritage Criterion line?

We have found that some customers from both product lines have made the decision to switch to the other. Axens can now offer products for a much broader range of objectives, including activity, selectivity, stability, chloride retention and commercial considerations, such as platinum optimization. So for each specific configuration and objective, Axens can provide an optimal product.

What's the word on your new fixed bed offering?

The acquisition of the Criterion reforming business gave us access to a high quality alumina that is proving quite promising for fixed bed applications. The combination of Axens' fixed bed type catalyst formulation (our RG product line) with this new carrier has allowed us to create a new family of fixed bed catalysts with activity, stability and selectivity improvements similar to our new PS 100 CCR catalyst.