



## New BASF and Dow HPPO Plant in Antwerp Completes Start-Up Phase

- World's largest plant using new HPPO technology
- Sustainability through greater energy efficiency

**ANTWERP, Belgium; MIDLAND, Mich. (2009, March 5)** – BASF SE (BASF) and The Dow Chemical Company (Dow) announced today that the world's largest commercial-scale propylene oxide (PO) plant and the first based on the innovative hydrogen peroxide to propylene oxide (HPPO) technology jointly developed by BASF and Dow has completed its start-up phase and is running stably. Both companies are very satisfied with the performance of the new process which is regarded as a historical milestone in PO production. This HPPO complex, with a capacity of 300,000 metric tons PO per year located at BASF's site in Antwerp, Belgium, provides economies of scale, a reduction of wastewater and lower energy usage. PO is a core ingredient for the polyurethanes industry.

"HPPO is an exciting new technology that will improve the competitiveness of our polyurethanes business while also supporting Dow's sustainability efforts through greater energy efficiency, reduced physical footprint, and improved environmental performance," said Pat Dawson, president of Dow Polyurethanes. "The start-up is a culmination of considerable research and development and is a tribute to the longstanding and successful partnership of Dow and BASF."

"We are proud to have such an outstanding example of state-of-the-art technology at one of our sites", Jacques Delmoitiez, President of BASF's Polyurethanes division, said. "This HPPO plant will further strengthen our successful polyurethanes business. Its advanced technology and world-scale capacity secures a cost leadership position for both companies. BASF and Dow are the first to run the new HPPO technology on a world scale plant."

In 2003, Dow and BASF began their joint process research program to develop and commercialize the HPPO technology. This joint venture allowed the two companies to combine their innovation strengths and thereby commercialize the technology more rapidly than would have been possible by either partner alone. The HPPO joint venture partners broke ground for the production facility in September 2006.

### **The benefits of HPPO**

Compared with conventional PO process technologies, HPPO offers unique economical and environmental benefits:

#### **Economic benefits**

New PO plants built using the HPPO technology are more economical because they:

- require significantly less capital to build,
- eliminate the need for additional infrastructure or markets for co-products, as the process produces only PO and water,
- require simple raw material integration – just hydrogen peroxide and propylene are needed as raw materials.

#### **Environmental benefits**

The new HPPO technology brings environmental improvements to the PO industry by:

- reducing wastewater by 70 to 80 percent, compared with existing PO technologies,
- reducing energy usage by 35 percent, compared with existing PO technologies,
- reducing infrastructure and physical footprint with simpler raw material integration and avoidance of co-products.

### **Contacts**

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