



First Yara implementation of advanced process control on-line on Ammonia plant in Sluiskil

Sluiskil (The Netherlands), Leuven (Belgium), Boxtel (The Netherlands), November 16th 2004

On November 5th 2004 both Yara and IPCOS announced that an INCA based APC application has been implemented successfully in ammonia unit E in Sluiskil. It is the first implementation of model-based or *model predictive control* in Yara. Benefits on production capacity and energy consumption are significant. Currently a second ammonia plant in Sluiskil (Unit D) is equipped with an INCA based APC application .

The project has been a joint effort with resources from IPCOS, Yara Project Office in Brussels and the plant. A basic condition for the project has been that it should be implemented without significant negative effect on operation, and definitely without causing or requiring a plant shutdown. The final production controller was set in continuous 24*7 operation on November 5th.

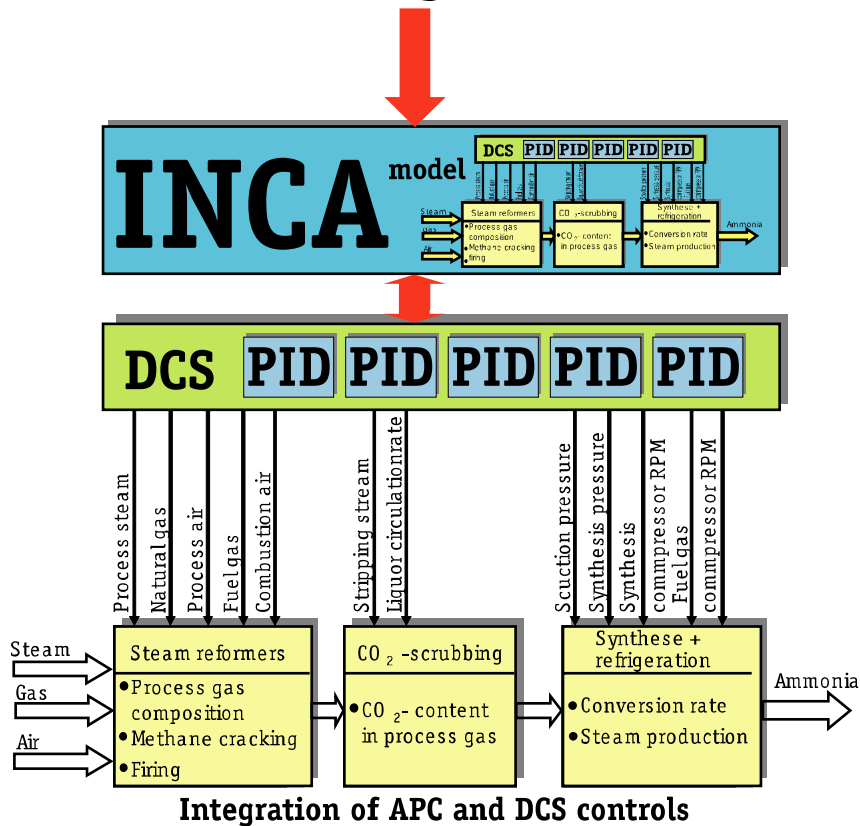
Sluiskil ammonia production manager Rik Lambotte is optimistic regarding the results: "The payback actually started already during the initial phase of project where we had to revise and reconsider the complete control and operating strategy of the plant. Now, with the APC system in on-line operation, production are stable at record-high levels." The roll out of this technology to Unit D was already started in January 2005. Yara ammonia technology co-coordinator Danny Franceus says: "Over the next couple of years we should implement APC in ammonia plants at several other production sites."



APC project participants from IPCOS and Yara.



Targets



Regarding Yara

Yara is the world's leading supplier of plant nutrients in the form of mineral fertilizers, an essential ingredient in modern agriculture. In a world characterized by continuous population growth and limited availability of new land for farming, soil productivity must be continuously increased in order to satisfy the demand for food. Mineral fertilizers are the only sustainable major source of the plant nutrients required to ensure production of enough food of good quality and this is at the base of Yara's mission to help feed the world.

Regarding IPCOS

IPCOS is founded in 1995 as supplier of model based control and optimization solutions to the chemical processing, glass manufacturing, power and oil and gas production industries. IPCOS delivers consultancy, engineering services as well as complete solutions for model based process control, plant optimization and process monitoring. IPCOS, 'Creators in Control', describes exactly what IPCOS is and what we do. We create state of the art advanced process control solutions and offer the customer all the engineering services that are needed to install these solutions and keep them up to date. IPCOS focuses primarily on the (petro-)chemical, the glass manufacturing, the power and the oil production industry. Since we put a lot of effort in research we deliver state of the art products that are way ahead of our competitors.