

Customer: Lhoist North America (LNA)

Subject: Training Simulator Simulex® from KHD Humboldt Wedag for lime process training

Training Date: October/November 2020

Training methodology: Remote/Online, training documents, eLearning tutorials

### Training Simulator Simulex® for lime process training at Lhoist North America (LNA) in 2020

LNA (Lhoist North America) has recognized the need to setup a corporate training program for lime plant operators. Objective was to strengthen process operating skills, to train new process operating personnel with the aid of a training system, to set up a common training agenda, finally to harmonize and standardize operating standards in the group.

Humboldt Wedag has been awarded to supply its the training simulator Simulex®.

Special side conditions have been:

- The adaptation to the lime processing technology
- The customization of the process plant model according to specification of an existing lime process plant, consisting of a circular shaft preheater, a rotary kiln as well as a lime contact cooler.
- The customization of special control loops and interlocking procedures, applying to the lime plant, for example the introduction of a BMS (Burner Management System) in a simplified version.
- The introduction of process operating interfaces, adapted to the mimics of the lime plant
- The installation of the training licenses into the cloud, hosted by KHD Humboldt Wedag and committed for continuous access through LNA via remote internet connection
- Web version of the simulator interfaces as an option
- The execution of a trainer training program to launch functions and features of the supplied simulator version

At project start the relevant information was submitted by LNA and a preliminary customization of the simulator was supplied in an early project phase for further inspection and test. The final version was launched after all required characteristics and functions had been met satisfactorily.

The training program, installed as an online appointment, was scheduled based on a 40 hours agenda, to conduct through all functional details, as well as to teach process examples like kiln heat up, lime stone introduction, increase of production and typical failure incidents. Special simulator packages like the setpoint tracking and trainee evaluation were utilized to round off the training program. Training documents as well as eLearning tutorials were prepared and handed over.

LNA is impressed of the variety of the simulator functions and the accuracy of the simulated process behavior. LNA is highly satisfied about the Simulex® supply by KHD Humboldt Wedag.