Let’s talk:

From shutdown to restart in 33 days

Wrongly connected motors, misaligned piping, problems integrating the cooler’s control system into the customer’s main control system – a lot can go wrong when commissioning a new clinker cooler in an existing cement plant. Georg Fonnemann and Ulrich Küpperbusch work closely with their colleagues and customers to ensure such issues don’t happen. The two have worked on many job sites and experienced a lot. In this interview

they tell us how important it is to make sure you're well prepared, always remain calm, and coordinate closely with the customer at all times. A shining example of this was the commissioning of a polytrack® clinker cooler for customer Republic Cement in the Philippines. Republic Cement's Project Director & Plant Manager at the Teresa site agrees: "The expectations on the customer side were exceeded".

Mr. Fonnemann, Mr. Küpperbusch, first of all a question about the current coronavirus pandemic: Has your work been directly affected?

Fonnemann: Yes, it has. Following the successful commissioning of the polytrack® in the Philippines I was supposed to be doing another commissioning in the Netherlands. This has been delayed for some time. The special feature of that project is that it isn't clinker but crushed asphalt that needed cooling.

Küpperbusch: After the commissioning in the Philippines I was in Algeria. I made it back on one of the last flights.

You took part in the commissioning at the Teresa plant in the Philippines. What does commissioning involve?

Fonnemann: We distinguish between cold and hot commissioning. In the cold phase we begin by conducting a final inspection of the construction work and switching on the power supply to the machine. Next we check several key points, such as mechanicals, connections, the sealing of the modules and the alignment of the hydraulic cylinders in the lower part of the cooler. Then we start up the control system.

Küpperbusch: That's always a particular challenge. After all, we're integrating our cooler into an existing cement plant. Our control system needs to be synchronized with the customer's main control system so we do an interface test, bit by bit. It's important to collaborate very closely with the customer here and this worked out very well with the people at Republic Cement.

Fonnemann: After several signal tests we start up the hydraulics. And then the big moment arrives when the cooler is started from the main control pulpit for the first time. This is followed by test runs with and without material. As part of these tests we also run through the emergency operation of the pumps and various fault scenarios. The operation of the cooler is optimized to meet the customer's specific requirements.

Küpperbusch: During hot commissioning the bed level regulators are then calibrated and the entire hydraulic system is checked again. Last but not least we train the customer's employees in "real life".

From shutdown to restart you needed only 33 days. 45 days were actually planned. How did you manage that?

Küpperbusch: Put it this way: the construction team managed to build up a lead which we – the commissioning team – defended through to the end and even managed to extend a little. This was made possible by the outstanding collaboration between the customer Republic Cement, the subcontractors and us. Very good construction firms with sufficient manpower and good site equipment (cranes, lifting equipment, tools, etc.) were also involved. The rest was down to good planning, the detailed construction plan and working in multiple shifts. A large proportion of the time gained was due to to the modular design of the polytrack®. We were able to save a lot of time when lifting the free-standing modules into their intended locations.

Fonnemann: On all sides there was a willingness to pull together and find non-bureaucratic solutions when something didn't immediately work out as planned. The project management and the specialist departments were able to respond quickly to problems on site.

Küpperbusch: However, I want to emphasize that for the customer and all other partners involved, including thyssenkrupp, keeping to the schedule was important but was never placed above health & safety. The job was not only completed faster than planned, but also entirely without lost time accidents.

In general it has to be said that the technical problems on a job site can be solved relatively easily. It's often the conditions on the ground, particularly in remote areas of the world, that present the big challenges.

Thank you for the interview.

Ulrich Küpperbusch (l.) and Georg Fonnemann