Stringent Insurer Safety Requirements met with Mobrey Hydrastep Steam Drum Level Monitoring

RESULTS

• Increased safety
• Compliance to insurer’s requirements
• Redundant level measurement
• Clear, continuous level indication

APPLICATION
Steam drum level measurement

CUSTOMER
A waste treatment specialist company, France

CHALLENGE
A newly constructed waste treatment plant was the first of its kind in France. The plant processes over 400,000 tons of municipal waste from the Marseille province. The waste is sorted into plastics, metals, organic and combustible materials. The organic waste is used to produce bio-gas and compost, and the combustible waste fuels the furnace to create super critical steam which is used to generate power. This power is then sold onto the national electric company.

Any steam raising plant will use steam drums, and these steam drums require accurate and reliable level measurement to ensure the safety of the plant. The waste treatment plant was already using differential pressure (DP) transmitters to measure and control the level within their two steam drums. However, after a recent review, the plant’s insurers were concerned that if the DCS was to fail, the DP measurement would be lost and there would be no way of knowing the level within the steam drum. This could lead to the steam drum running dry, or rising level and water entering the steam turbine, both critically dangerous situations. The insurers insisted on an additional measurement on the steam drum which would be independent of the DCS.

SOLUTION
The plant’s operators approached Emerson™ for a solution. Emerson proposed the Mobrey Hydrastep, a product designed specifically for this application. One Hydrastep system was to be fitted to each steam drum. The two-input board option was chosen for dual redundancy; should one board fail, the other would continue to operate and provide a level measurement.

"The Hydrastep systems are reliable and the insurers are happy.”
The Hydrastep is capable of interfacing with the DCS, but it was decided to keep it independent in case the DCS was to fail. Remote displays were positioned in the control room to give a clear and continuous indication of the level in each drum.

The plant’s insurers were content that Hydrastep would give a reliable level measurement and would enable the customer to continue the safe operation of their plant.

Mobrey Hydrastep 2468 Electronic Steam and Water Gauging System

Standard Terms and Conditions of Sale can be found on the Terms and Conditions of Sale page.