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Automation Technology in the Waste Incineration Plant in Hamm.

Power

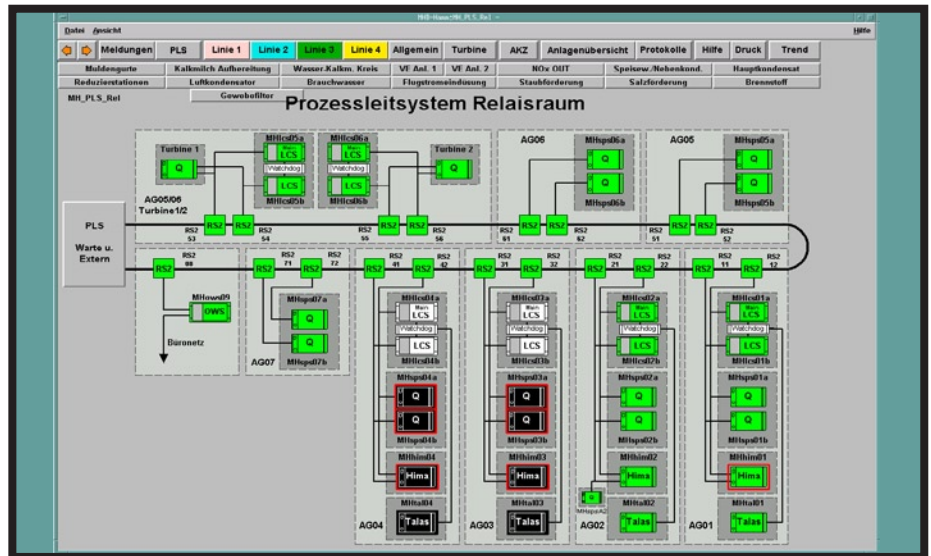
Redundant automation technology in the waste incineration plant in Hamm



Faults and failures would have serious consequences in many plants in the process industry. Fail safety can only be guaranteed when important components such as the control system are redundant. The back-up controller is kept on standby and is supplied with the latest process data via a tracking cable. It can then

take over the present system's tasks without delay when it fails. At the waste incineration plant in Hamm, the redundant control technology from Mitsubishi is supported by Ethernet Switches. The design was executed by KH-Automation Projects.





Project details

The waste incineration plant in Hamm serves for the thermal treatment of urban waste and satisfies the criteria of safe disposal, environmental protection, utilization of energy, and economy. In order to get optimum utilization of the waste incineration plant in Hamm and to keep the prices to a minimum, the cities of Hamm and Dortmund and the districts of Unna, Soest and Warendorf have joined together in a regional co-operation. The plant guarantees safe and environmentally friendly disposal for about 900,000 inhabitants and numerous companies. The plant consists of 4 incinerator lines and a general unit which is responsible for the water supply, the condensation and steam circuits and for the turbines, dust, salt and slag discharge.

Project parameters

The aim of the project is to equip the plant with the greatest possible availability of the control and network components and to increase the user friendliness and transparency of the processes. The Waste incineration plant in Hamm was out of action for a week at the end of August 2004 due to scheduled maintenance work. This was also the time limit available to the Hirschmann™ partner KH-Automation Projects in Fulda near Kassel to install and commission the control technology with its 2,500 field signals for the general unit of the waste incineration plant in Hamm.

Requirements

- Shortest commissioning times
- Access via fault-tolerant Ethernet network by the PMSXpro control system up to the I/O level
- Transparency and adaptable measuring, control and regulating system

Solution

- Simulation of the entire process in advance and warm commissioning on site to complete commissioning as quickly as possible
- The new automation stations were pre-assembled on mounting plates and installed completely in the existing switch cabinets
- The computers are linked by a redundant, fault-tolerant Ethernet network. The system consists of redundant Mitsubishi Q control systems installed in pairs which are linked by Hirschmann™ RS2-Switches.

Why Hirschmann™?

Experience shows that a combination of top quality products from Mitsubishi Electric and Hirschmann™ Automation and Control guarantees maximum reliability



RS2-FX/FX