AN 17-32-C390

Application-note

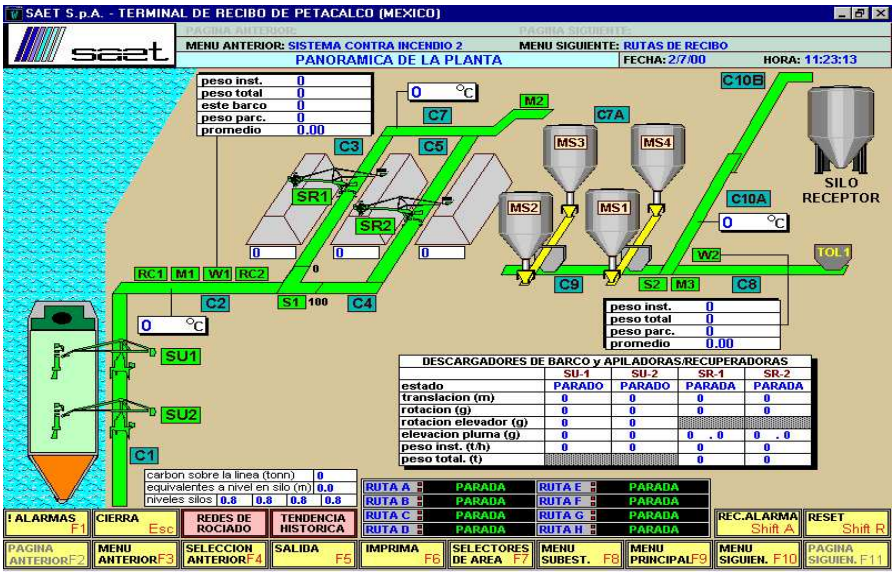
PETACALCO Coal Terminal in Mexico: Turnkey installation of Automation and Weighing

The continuous ship unloader on the wharf

Stacker Reclaimer

Coal storage silos

The construction of the Petacalco coal terminal in Mexico, commissioned by the CFE and built by Techint S.p.a, is an important installation located in the industrial port of Lazaro Cardenas (Michoacan)Mexico. The automation of the operations of ship unloading, stocking, handling, blending and conveyance of the coal from the wharf to the power plant, including the relative systems of weighing and dispensing, was the subject of the contract issued by Techint to SAETt for a turnkey installation. The Pdte power plant near Petacalco with a nominal power of 2100 megawatt burn 810 t/h. The installation is a complex system that includes the unloading zone of the port area, the stockpile area, the generator supply area and ash return. For this installation, SAET supplied the systems of automation for the following contract items: **CSU**, Continuous Ship Unloaders, permitting a fully automatic sequence for ship unloading, that is additional to a semi-automatic cycle for the introduction of mobile extractor for completion of the last part of the load (about 5%) and final cleaning. The control equipment on the machine can be used to dialogue in the redundant Datahighway Plus fiber optic network, with PLC systems on the ground, thus forming a redundant communications network with an extension of approximately 10 km. Control of machines for stockpiling and uptake of coal (**SR Stacker Reclaimers**) allows the machines to work independently of each other, both for stacking and reclaiming, to obtain the maximum flexibility; the Stacker Reclaimer is movable and reversible operating machine that unloads coal and picks it up from the stack underneath, complete with the SAET belt weighing system, with loading cells for measuring the amounts stockpiled and removed. **Dispensing and transfer of coal to the generators and removal of ashes**, designed to work under extremely severe conditions. In this sense, particular care was taken to seal all the moving parts subject to wear to ensure reliability in spite of the high level of pollution of the working conditions. Each of the four dispensers is equipped with a SAET control system with independent microprocessor (model WS 90). All the systems of automation and dispensing developed by SAET were installed by its own personnel, providing service and training to the local personnel.



SCADA Video page

General view of the coal storage area

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