SVC switchyard in Sidmed, Spain.

The project team working on the design preview.

Reference case

SVC installation in Sidmed, Spain

Siderúrgica del Mediterráneo, S.A. (SIDMED) is a steel plant that manufactures thin steel plates in Sagunto, near Valencia in Spain. SIDMED had an old installation with filters where the capacitor units needed to be renewed and extended. The production process of SIDMED's plant caused altering strain on the network, which exceeded the capacity of the old installation of the filters. The Spanish agent of Nokian Capacitors was contacted by SIDMED, requesting to renew and extend its capacitor units.

After extensive measurements of reactive power it was decided that the best way to compensate the constant overload of the network was to invest in a thyristor controlled Static Var Compensator.

We made several RFP's, but soon chose Nokian Capacitors as our partner for the project, says Batiste Bolos, the expert in high voltage and protections of SIDMED.

They had the most extensive offer from a technological perspective, and the most appropriate pricing. The references Nokian Capacitors had from previous projects (e.g. Outokumpu, Rautaruukki SVC) enforced our choice.

The turnkey delivery included basic planning, layout planning, equipment delivery and installation, and implementation support along with the appropriate guarantee measurements.

Nokian Capacitors was very open to our requests, demonstrating flexibility in the solutions they suggested, says Mr Bolos. For instance, he continues, we had several layouts to choose from in the planning phase of the installation. One of our special wishes was to develop a data acquisition feature into the control system of the SVC. Nokian Capacitors designed a protection and control system in a separate control room where from the compensation of reactive power and the functioning of the equipment could be monitored exactly as we wanted.

Before equipment delivery, SIDMED's people visited Finland for factory testing, after which six truckloads of material were sent to Sagunto. A local contractor, under the supervision of Nokian Capacitors, made the installation.

Three months after initial installation SIDMED made the first test runs and guarantee measurements, which proved the SVC to be working according to the expected parameters.

The entire project from the beginning to the end lasted for a year, during which the Finnish team of experts became familiar faces at SIDMED.

Our cooperation was enjoyable, Mr Bolos states. The Spanish agent of Nokian Capacitors, as well as the interpreter who came along with the project team, made communication easy. Contacts are still being maintained, as future projects are being planned.

The installation and other technical documentation were also a cause of gratitude – they were available and practically in their final form already before the installation of the SVC began.

All in all the SVC has made the operations of our plant more effective, says Mr Bolos. The technical benefits can be seen as improved supply voltage, and higher quality of power. On the financial side the costs of excess use of reactive power have been eliminated.

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