

CONTROL BRANCH REQUIREMENTS

Execution of the technical implementation and as-built design within the following scope:

- inventory taking of DCS, ESD system cabinets in terms of extension for the purpose of the newly designed hydrochloric acid concentration unit,
- instrument index, documentation of logics, together with the description of control algorithms and interlocks,
- update of existing documentation of DCS, ESD system cabinets,
- update of the DCS handling manual as regards introduced changes.

Comprehensive implementation is required of control strategies and interlock systems for the designed system in the existing Foxboro I/A Series DCS and Yokogawa ProSafe ESD systems at the Chlorine and Sodium Hydroxide Installation. Solutions based on local PLC controllers are not allowed.

Performance of assembly works within the following scope:

- purchase and delivery of all requisite devices, piping with instrumentation and performance of comprehensive assembly works;
- performance of full functional tests of designed circuits, confirmed by a proper report,
- participation in the commissioning and start-up of the installation.

Performance of configuration works within the following scope:

- performance of comprehensive implementation (measurement points, regulation systems, lockdown systems, operator graphics, exchange of newly designed signals between DCS and ESD, etc.) in DCS and ESD system within the scope covering the designed hydrochloric acid concentration unit.

The performance of all such works (design, purchase, assembly) as may be subject to this technical specification must comply with the technical standards in force at ANWIL S.A. and presented in the document entitled

"General requirements for the construction of new and the modernisation of existing production facilities in the Control and instrumentation industry – technical annexes to contracts."

All deviations from technical requirements – "General requirements for the construction of new and the modernisation of existing production facilities in the Control and instrumentation industry – technical attachments to contracts") must be subject to arrangements by and between the Investor and the Contractor.

The prerequisite for purchases, deliveries and assembly works to commence is obtaining proper approvals – a positive opinion about the technical documentation is issued by the Automation and

Electricity Office (SG) and the Maintenance Services of the Plastic Area of ANWIL S.A.