



NAME OF THE PROJECT

New plant to produce bacteria for human health

FIELD

Food

LOCATION

Mirabel

YEAR OF ACHIEVEMENT

2018-2020

Context

In order to increase the production of bacteria in North America and Europe, our client proceeded to build a new modern factory with a higher production capacity.

Mandate

The PCI team participated in the electrical engineering, programming and integration of all plant equipment.

More precisely, the plant is made up of the following equipment: 500 L pre-fermenter, 22,000 L fermenter, injection station for dry and liquid ingredients, filtered water station, separators (2), tanks separation and receptions (3), crushers (2), 2-tank cleaning-in-place station, water treatment with evapo-concentrator and odor treatment.

Accomplished tasks

- Functional analysis
- Electrical design of control panels (39)
- Design of network architecture and control architecture
- Configuration of SCADA servers (2) and clients (5)
- Configuration of the mirror historian
- PLC and SCADA programming
- Supervision of the electrical installation
- Commissioning and support 24/7

Solutions provided by PCI

- Complete revision of the control philosophy in order to reduce manual operations and the risk of error
- iFix SCADA installed in redundancy on two virtual machines
- GE Proficy Historian installed in mirror on two virtual machines
- Remote operator stations with RFID card authentication to ensure system security according to users
- HMI design using high performance interface techniques
- Setting up a loop network with Allen-Bradley DLR technology
- Backup battery (UPS) to maintain the integrity of the product in the event of a failure

Tools and methods used

- Project management
- Rockwell DLR network architecture
- Allen-Bradley PLCs (5) (CompactLogix)
- SCADA (2) and iFix customers (5), GE Historian
- OPC IGS server
- Win911
- UPS Schneider Galaxy 3500