



**NAME OF PROJECT:** New production plant for inactive yeast and yeast extracts

**FIELD:** Food Industry

**LOCATION:** Ontario

**YEAR OF EXECUTION:** 2018-2019

### AREA OF EXPERTISE



Process Control

### SERVICES PROVIDED



Design



Programming



Software



Machine Safety

### CONTEXT

Wishing to increase its yeast extract production capacity, now mostly in Europe, our client purchased a plant, closed at the time, that formerly dried milk products. The goal was to reuse what could be salvaged and put in new process equipment to satisfy the new production requirements.

### MANDATE

The PCI team performed the electrical engineering, programming and integration of all the modernized plant's equipment. Specifically, the plant includes the following equipment:

- Storage tanks (8), with an autolysis process
- Centrifugal separators (3), pasteurizer, evaporator and dehumidifier
- Spray dryers (3)
- CIP system with 3 tanks
- Wastewater treatment system

### PCI PERFORMED THE FOLLOWING TASKS

- Functional analysis for the equipment control logic.
- Electrical design of the control panels (7).
- Design of the network architecture and of the control system.
- Configuration of the SCADA system and of the historian.
- Programming of the PLC and SCADA system.
- Supervision of the electrical installation.
- System start-up and 24/7 support.

### SOLUTIONS DEPLOYED BY PCI

- Complete review of the control philosophy of the existing equipment, such as the evaporator and the dryers, to adapt their operation to the new type of products being dried.
- SCADA system with redundant servers installed in a virtual machine environment.
- Operator stations using thin clients to simplify the network architecture and optimize the servers' resources.

### TOOLS AND METHODS USED

- Schneider Electric architecture
- M580 processors
- Citect SCADA system and Wonderware historian
- HP thin clients (5)

**3 SIMILAR PROJECTS UNDERTAKEN**

