

Make 2 Pack: Meeting Oct 12 05

Batch Control Architecture Functions

Unit #2 (Prewrite) Functions

Material A Transfer:

1. Open Valve V-1
2. Start Pump Material A
3. Compare Control Setpoint to Actual Value from Load Cell
4. Close Valve V-1 and stop pump Material Transfer A
5. Complete

Material B Transfer:

1. Open Valve V-2
2. Start Pump Material B
3. Compare Control Setpoint to Actual Value from Flow Meter
4. Close Valve V-2 and stop pump Material Transfer B
5. Complete

Agitate:

1. Start the Unit #2 Agitator
2. Compare Stop conditions to actual conditions
3. Stop the Unit #2 Agitator
4. Complete

Transfer Out:

As a preweigh this unit will transfer all "preweighed" material to unit 1

1. Confirm that Unit 1 is Ready
2. Open Valve V-7
3. Compare Close conditions to actual conditions
4. Close the Valve V-7
5. Complete

Unit #1 (Main Mixer) Functions

Material C Transfer:

1. Open Valve V-3
2. Start Pump Material C
3. Compare Control Setpoint to Actual Value from Load Cell
4. Close Valve V-3 and stop pump Material Transfer C
5. Complete

Material D Transfer:

1. Open Valve V-4
2. Start Pump Material D
3. Compare Control Setpoint to Actual Value from Load Cell
4. Close Valve V-4 and stop pump Material Transfer D
5. Complete

Material E Transfer:

1. Open Valve V-5
2. Start Pump Material E
3. Compare Control Setpoint to Actual Value from Load Cell
4. Close Valve V-5 and stop pump Material Transfer E
5. Complete

Agitate:

1. Start the Unit #1 Agitator
2. Compare Stop conditions to actual conditions
3. Stop the Unit #1 Agitator
4. Complete

Heat:

1. Open the Steam Valve
2. Monitor the Temperature Transmitter
3. Regulate the Steam Valve
4. Compare shutdown conditions to actual conditions
5. Close Steam Valve
6. Complete

Receive Unit #2 Material

1. Inform Unit #2 that this Unit is ready to receive material
2. Wait for Unit #2 to confirm that the material transfer is complete
3. Complete

Wait

1. *Wait* for a period of time or condition before completing
2. Complete

Transfer Out:

This unit will transfer to either the “Bulk” or “Packing” storage tanks based on an automated decision.

1. Determine destination, Bulk or Packing Tank

If Bulk Storage Tank

- a. Confirm Valve V-10 and V-14 are closed
- b. Start the Dryer
- c. Open Valves V-8, V-9, V-15 and V-12.
- d. Start the Transfer Pump
- e. Compare shutdown conditions to actual conditions
- f. Close Valves V-8, V-9, V-15, V-12 and Stop the Transfer Pump
- g. Stop the Dryer
- h. Complete

If Packing Storage Tank

- a. Confirm with the Transport System that the Packing Storage Tank is not in use.
- b. Confirm Valve V-10 and V-12 are closed
- c. Start the Dryer
- d. Open Valves V-8, V-9, V-15 and V-14.
- e. Start the Transfer Pump
- f. Compare shutdown conditions to actual conditions
- g. Close Valves V-8, V-9, V-15, V-14 and Stop the Transfer Pump
- h. Stop the Dryer
- i. Complete