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***** Multi-Tank Batch Control *****

Additional internal memory:

Tag	Data Type	
Run	BOOL	On while station running
Step_1 to Step_22	BOOL	Step-in-progress bits
Delay_Tmr	TIMER	Delay after emptying half of tanks
Reaction_Tmr	TIMER	Times reaction

Conversion formulas

$WT10x_VAL = (WT10x_MEAS/100) * (1000-0) + 0$

$TT103_VAL = (TT103_MEAS/100) * (100-0) + 0$

Start/Stop. Initial start

Start push button,
on when starting
START_PB
<Local:1:I.Data.0>

Stop push button,
off when stopping.
STOP_PB
<Local:1:I.Data.1>

Process running
Run

Process running
Run

Process running
Run

Step_1

Step_2

Step_3

Step_4

Step_5

Step_6

Step_7

Step_8

Step_9

Step_10

Step_11

Step_12

Step_13

Step_14

Step_15

Step_16

Step_17

Step_18

Step_19

Step_20

Step_21

Step_22

Step_1

Step 1. Make sure Run is on (especially after a pause).

Process running

Step_1

Run

Step_1

Step_2

Step_4

Step_6

Step 2. Fill Tank 1. Transition to wait when full.

Tank 1 weight, in
pounds

Step_2

GE
Grtr Than or Eql (A>=B)
Source A WT101_VAL
0.0
Source B 300.0

Process running

Run

Step_2

Step_3

Step 4. Fill Tank 2. Transition to wait when full.

Tank 2 weight, in
pounds

Step_4

GE
Grtr Than or Eql (A>=B)
Source A WT102_VAL
0.0
Source B 400.0

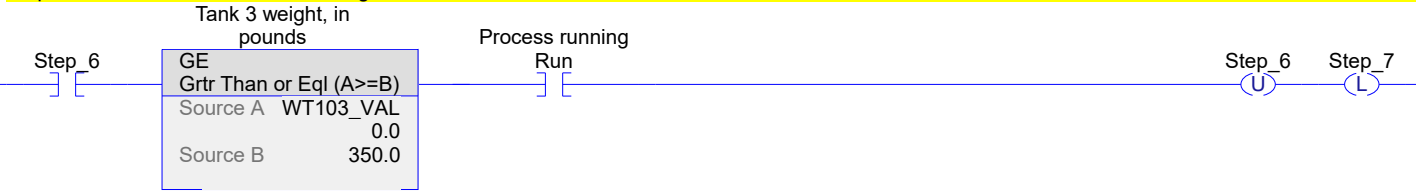
Process running

Run

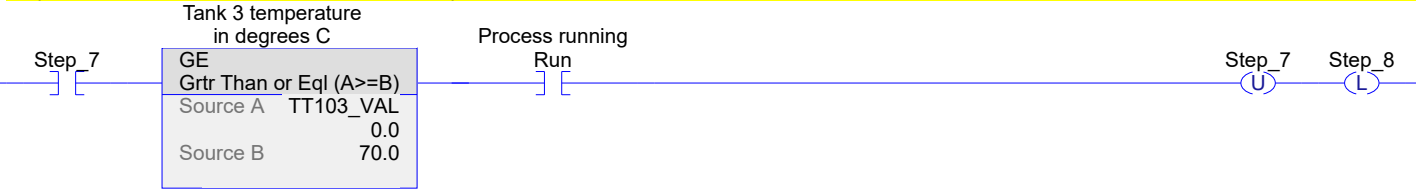
Step_4

Step_5

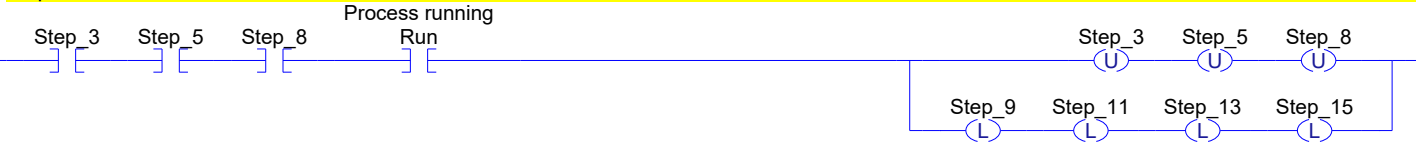
Step 6. Fill Tank 3. Transition to heating when full.



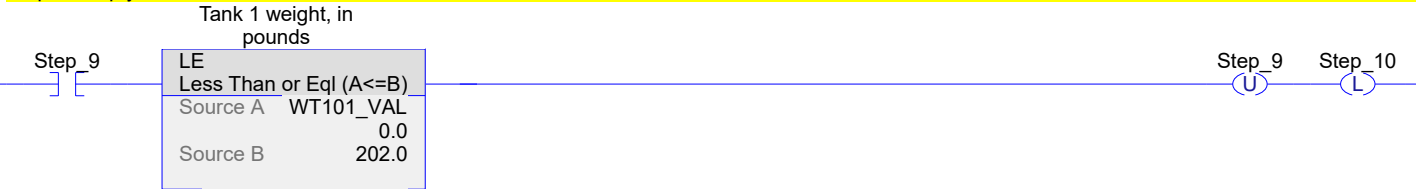
Step 7. Heat Tank 3. Transition to wait when temperature ≥ 70 .



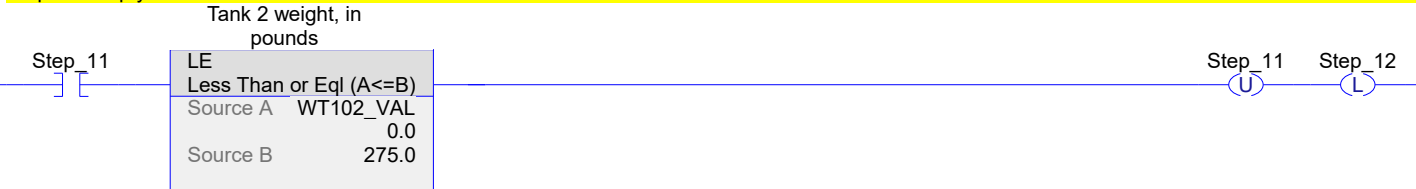
Step 3, 5, 8. Wait until all tanks full and Tank 3 heated.



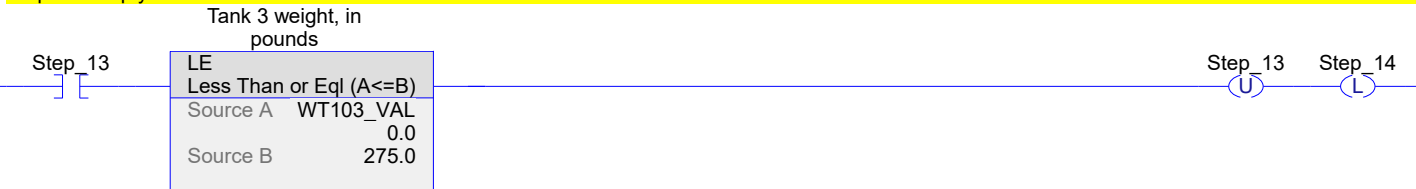
Step 9. Empty Tank 1. Transition to hold when material moved out.



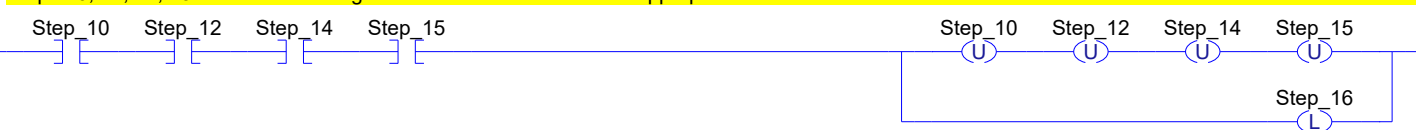
Step 11. Empty half of material in Tank 2. Transition to hold when material moved out.

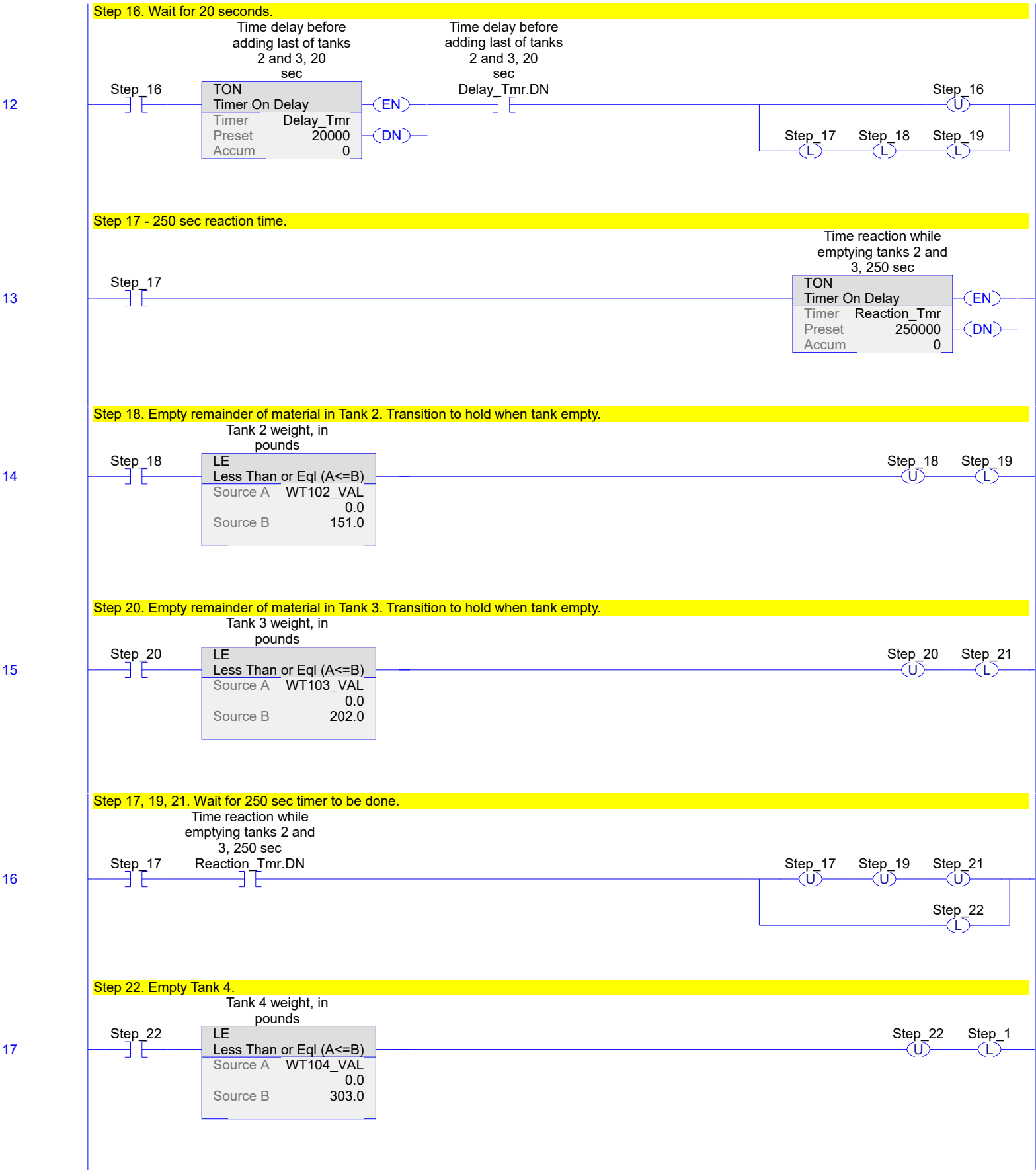


Step 13. Empty half of material in Tank 3. Transition to hold when material moved out.

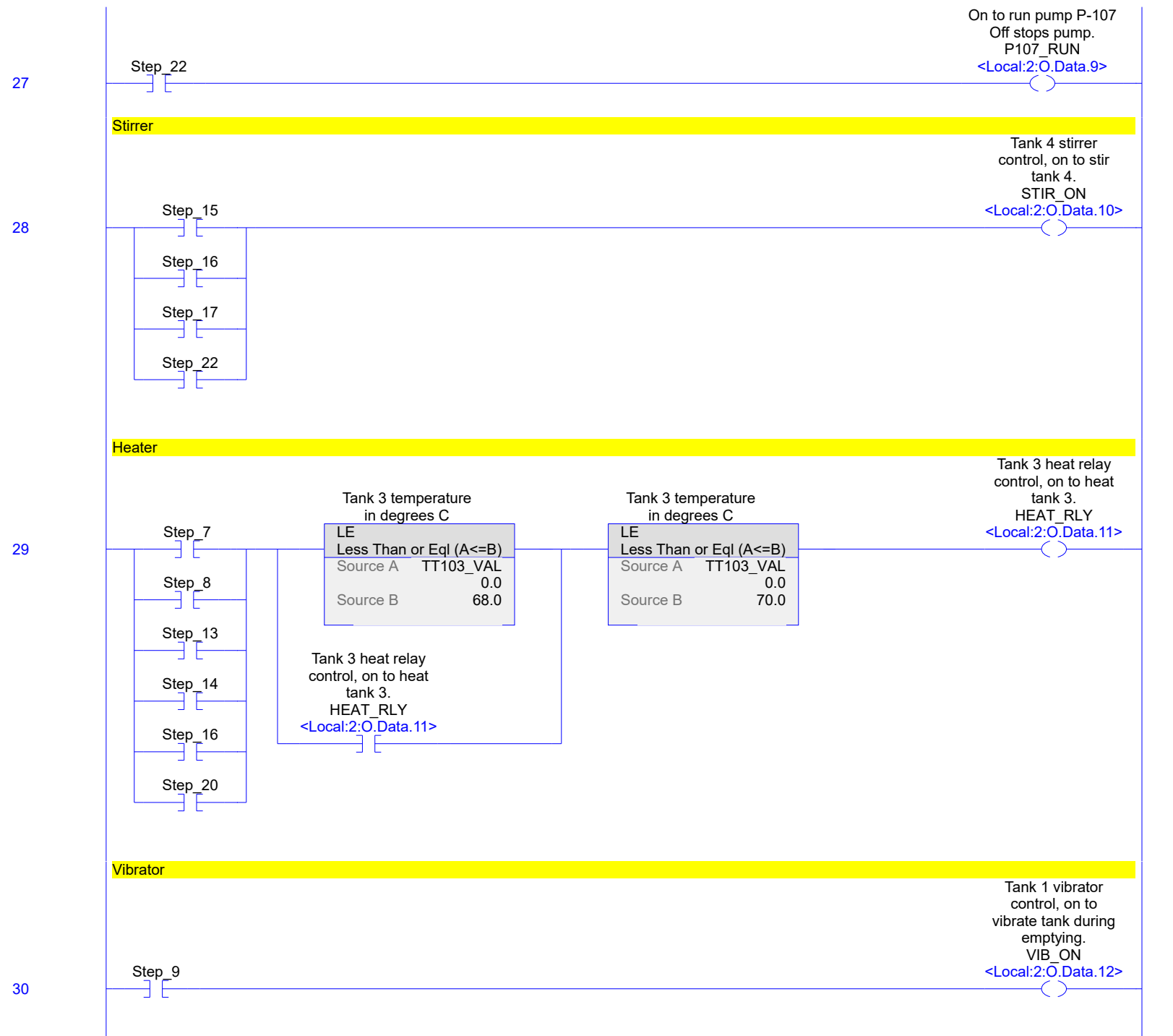


Steps 10, 12, 14, 15. Stir while waiting until all tanks have unloaded appropriate amount of material.

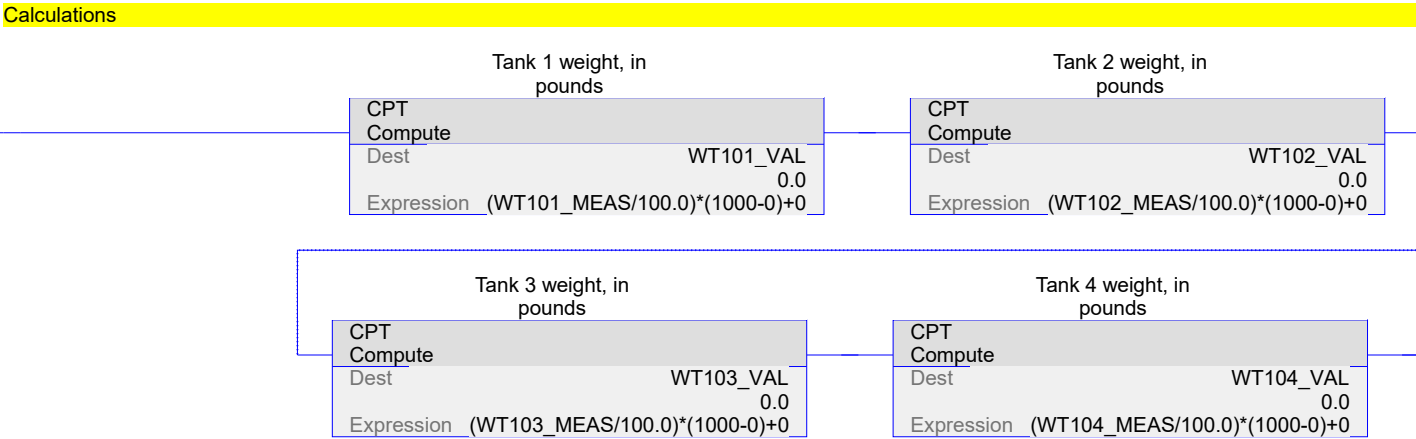




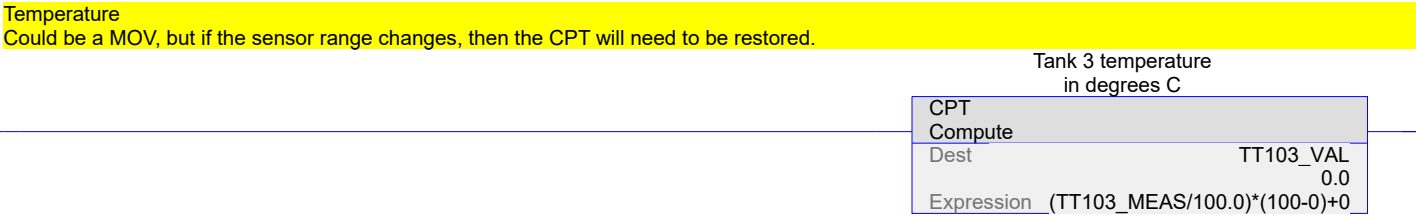




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(End)