RSLogix Micro Project Report

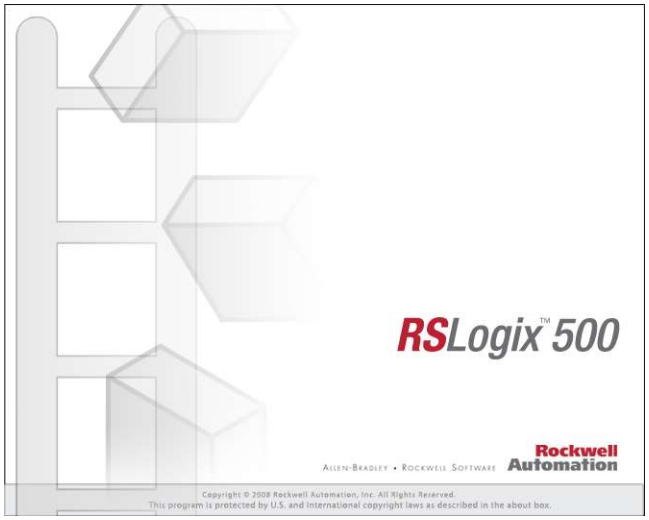


Table Of Contents

Processor Type: Bul.1763 MicroLogix 1100 Series B

Processor Name: PROC1

Total Memory Used: 813 Instruction Words Used - 129 Data Table Words Used

Total Memory Left: 5843 Instruction Words Left

Program Files: 13

Data Files: 11

Program ID: 5e34

0	Bul.1763	MicroLogix 1100 Series B
1		
2		
3		
4		

CHANNEL 0 (SYSTEM) - Driver: DF1 Full Duplex
   CHANNEL 0 (SYSTEM) - Driver: DF1 Full Duplex Edit Resource/Owner Timeout: 60
   CHANNEL 0 (SYSTEM) - Driver: DF1 Full Duplex Passthru Link ID: 1
   CHANNEL 0 (SYSTEM) - Driver: DF1 Full Duplex Write Protected: No
   CHANNEL 0 (SYSTEM) - Driver: DF1 Full Duplex Comms Servicing Selection: Yes
   CHANNEL 0 (SYSTEM) - Driver: DF1 Full Duplex Message Servicing Selection: Yes
   CHANNEL 0 (SYSTEM) - Driver: DF1 Full Duplex 1st AWA Append Character: \d
   CHANNEL 0 (SYSTEM) - Driver: DF1 Full Duplex 2nd AWA Append Character: \a

   Source ID: 1 (decimal)
   Baud: 19200
   Parity: NONE
   Control Line : No Handshaking
   Error Detection: CRC
   Embedded Responses: Auto Detect
   Duplicate Packet Detect: Yes
   ACK Timeout(x20 ms): 50
   NAK Retries: 3
   ENQ Retries: 3

CHANNEL 1 (SYSTEM) - Driver: Ethernet
   CHANNEL 1 (SYSTEM) - Driver: Ethernet Edit Resource/Owner Timeout: 60
   CHANNEL 1 (SYSTEM) - Driver: Ethernet Passthru Link ID: 1
   CHANNEL 1 (SYSTEM) - Driver: Ethernet Write Protected: No
   CHANNEL 1 (SYSTEM) - Driver: Ethernet Comms Servicing Selection: Yes
   CHANNEL 1 (SYSTEM) - Driver: Ethernet Message Servicing Selection: Yes

   Hardware Address: 00:00:00:00:00:00
   IP Address: 0.0.0.0
   Subnet Mask: 0.0.0.0
   Gateway Address: 0.0.0.0
   Msg Connection Timeout (x 1mS): 15000
   Msg Reply Timeout (x mS): 3000
   Inactivity Timeout (x Min): 30
   Bootp Enable: Yes
   Dhcp Enable No
   SNMP Enable: No
   HTTP Enable: Yes
   Auto Negotiate Enable: Yes
   Port Speed Enable: 10/100 Mbps Full Duplex/Half Duplex
   Contact:
   Location:

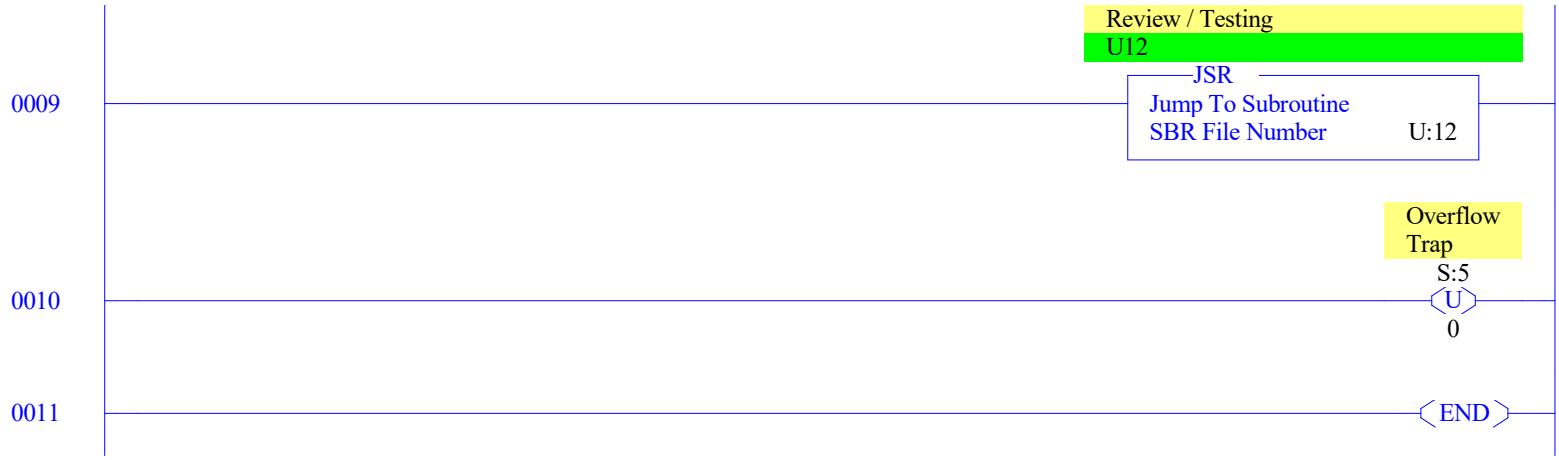
Program File List

Name	Number	Type	Rungs	Debug	Bytes
[SYSTEM]	0	SYS	0	No	0
	1	SYS	0	No	0
MAIN	2	LADDER	12	No	102
IO	3	LADDER	13	No	468
ALARMS	4	LADDER	18	No	576
CONTROL	5	LADDER	8	No	325
HOA	6	LADDER	23	No	803
SIMULATION	7	LADDER	7	No	476
MODE	8	LADDER	4	No	112
FILTERWASH	9	LADDER	16	No	455
LEVEL	10	LADDER	5	No	113
HOURMETER	11	LADDER	8	No	323
REVIEW	12	LADDER	7	No	466

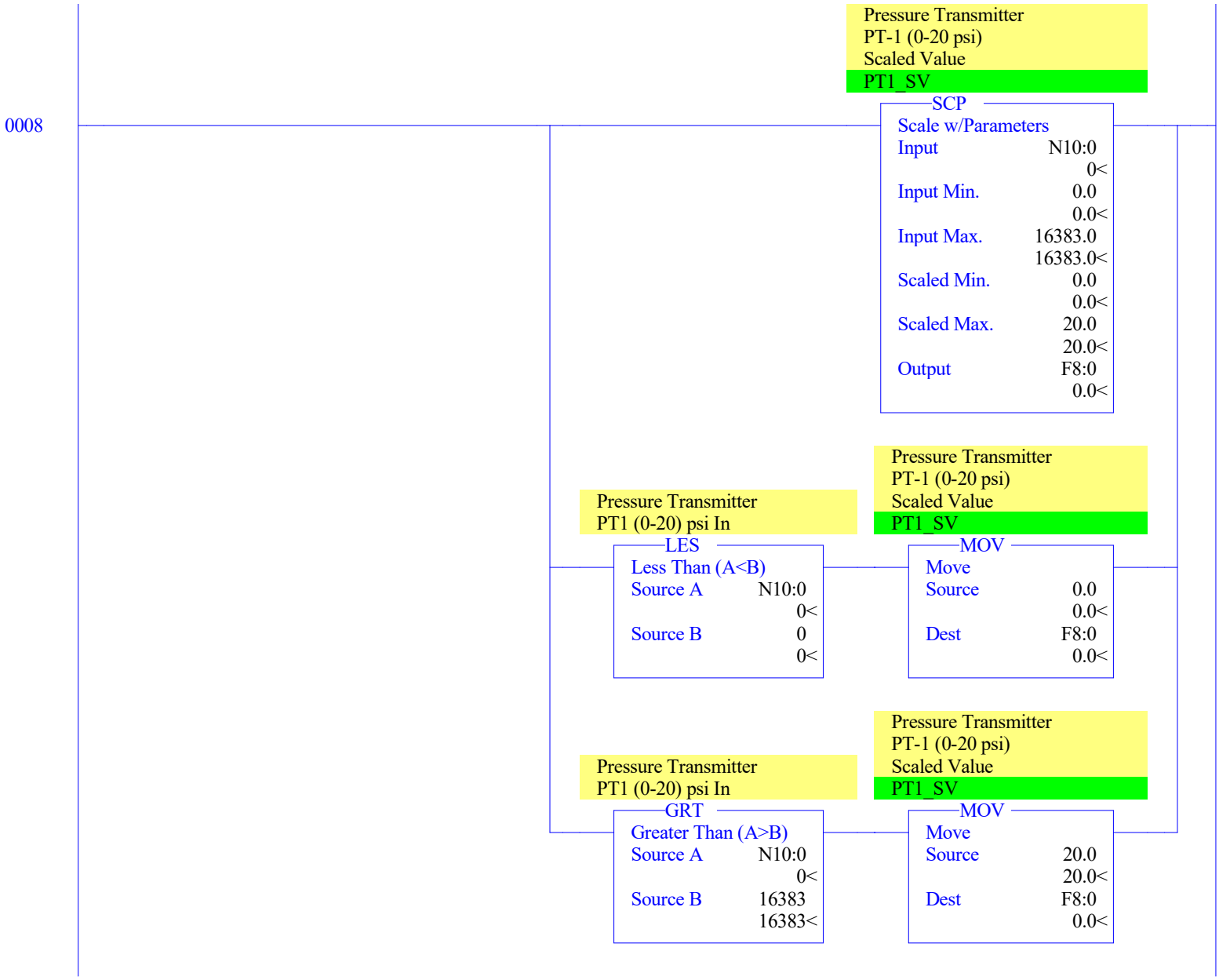
Data File List

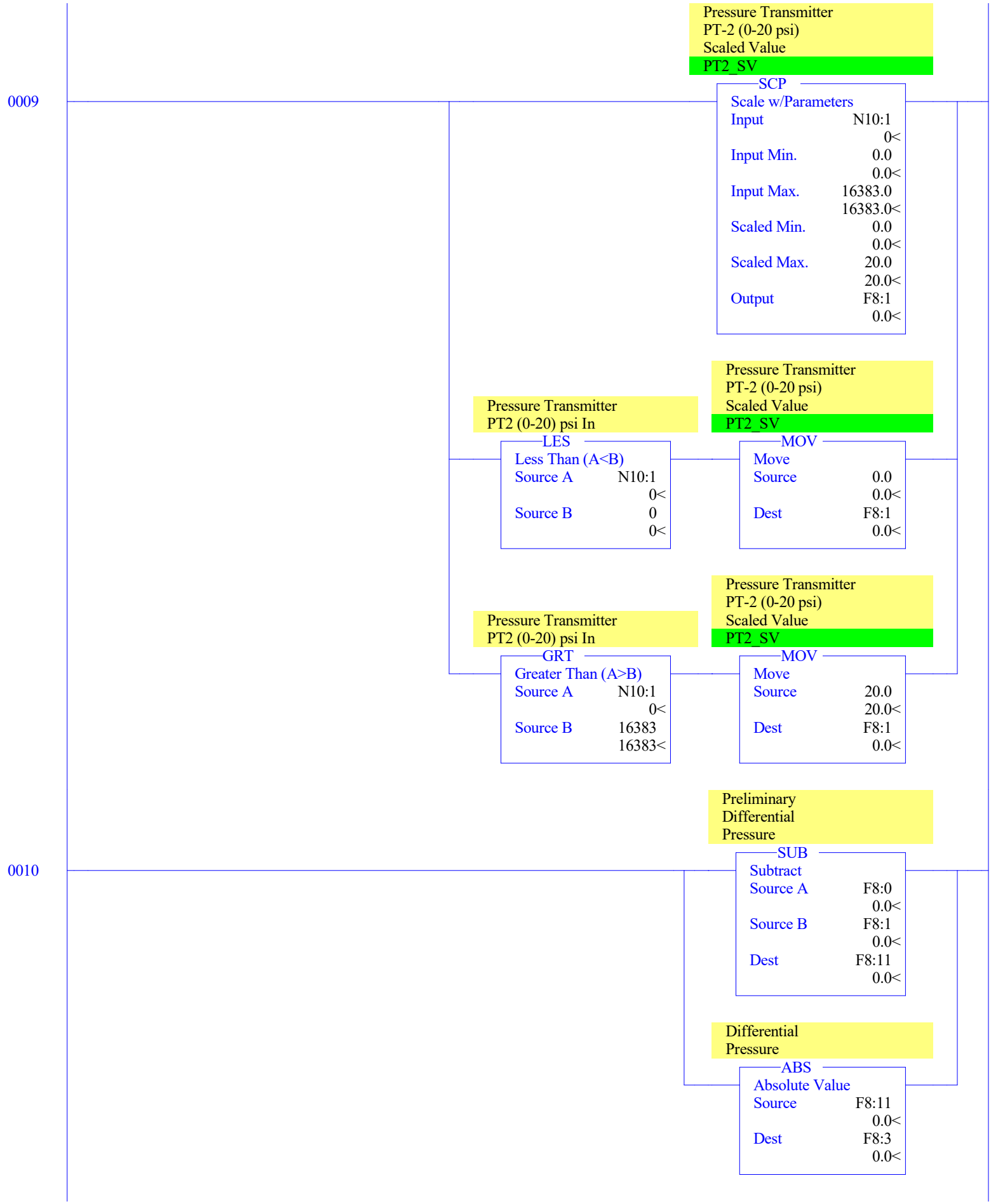
Name	Number	Type	Scope	Debug	Words	Elements	Last
OUTPUT	0	O	Global	No	12	4	O:3
INPUT	1	I	Global	No	18	6	I:5
STATUS	2	S	Global	No	0	66	S:65
BINARY	3	B	Global	No	7	7	B3:6
TIMER	4	T	Global	No	45	15	T4:14
COUNTER	5	C	Global	No	3	1	C5:0
CONTROL	6	R	Global	No	3	1	R6:0
INTEGER	7	N	Global	No	13	13	N7:12
FLOAT	8	F	Global	No	24	12	F8:11
DIGITAL IO	9	B	Global	No	1	1	B9:0
ANALOG IO	10	N	Global	No	3	3	N10:2

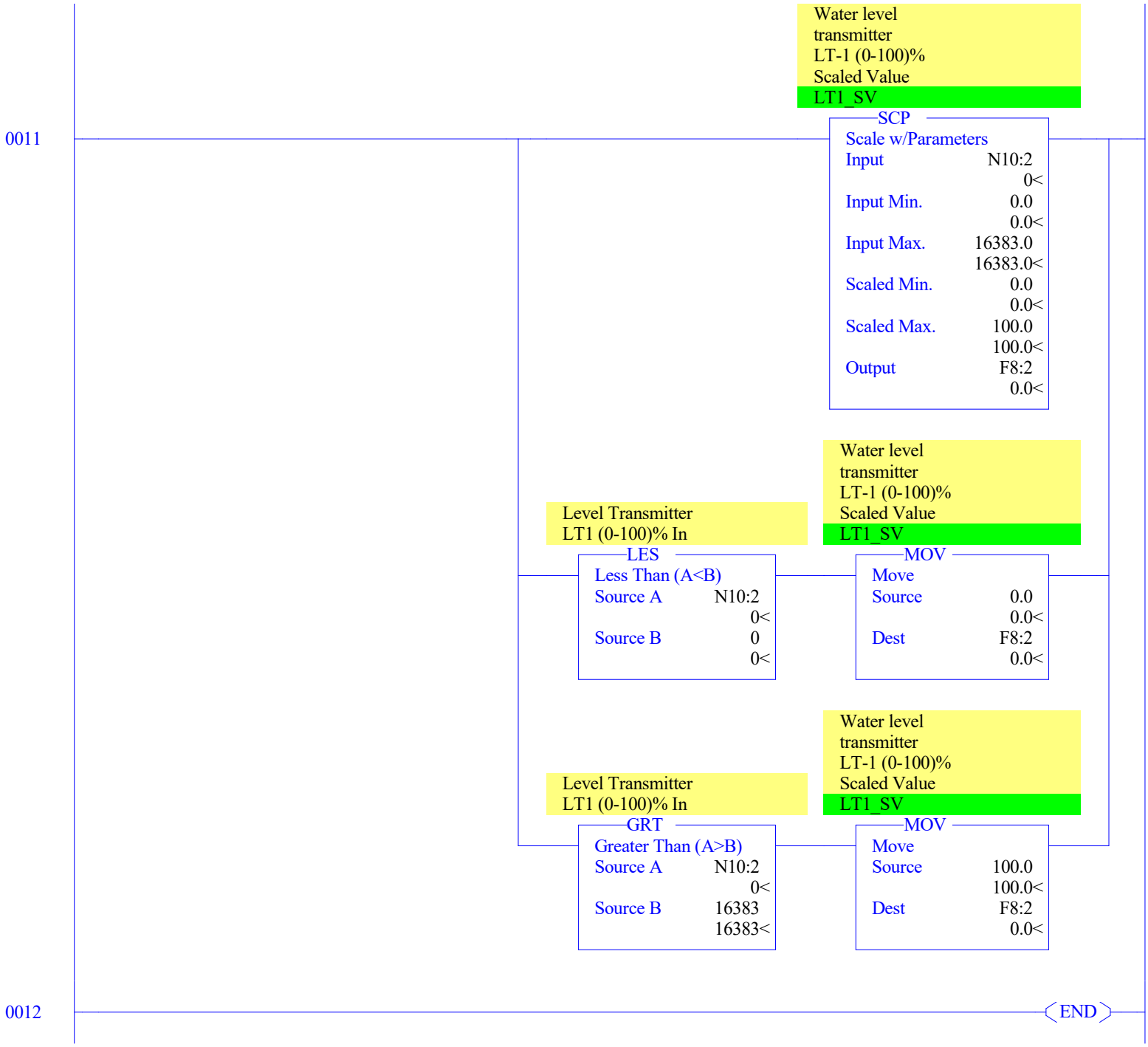

IO
U3
0000
JSR
Jump To Subroutine
SBR File Number U:3
Alarms
U4
0001
JSR
Jump To Subroutine
SBR File Number U:4
Controls
U5
0002
JSR
Jump To Subroutine
SBR File Number U:5
HOA
U6
0003
JSR
Jump To Subroutine
SBR File Number U:6
Simulation
U7
0004
JSR
Jump To Subroutine
SBR File Number U:7
Mode
U8
0005
JSR
Jump To Subroutine
SBR File Number U:8
Filter Wash
U9
0006
JSR
Jump To Subroutine
SBR File Number U:9
Level Control
U10
0007
JSR
Jump To Subroutine
SBR File Number U:10
Hourmeter
U11
0008
JSR
Jump To Subroutine
SBR File Number U:11

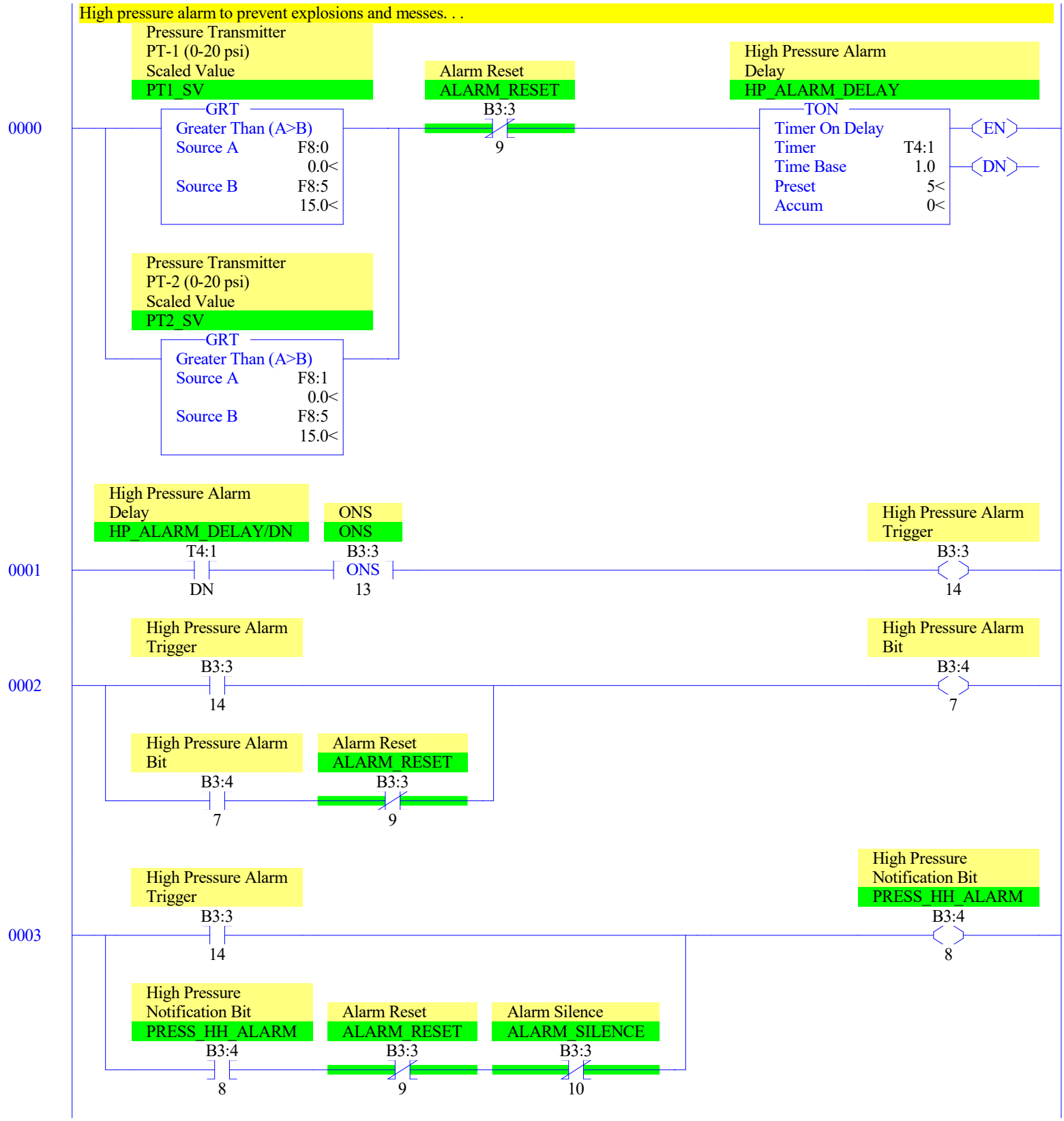

Review / Testing
U12
0009
JSR
Jump To Subroutine
SBR File Number U:12
Overflow
Trap
S:5
0010
U
0
0011
END

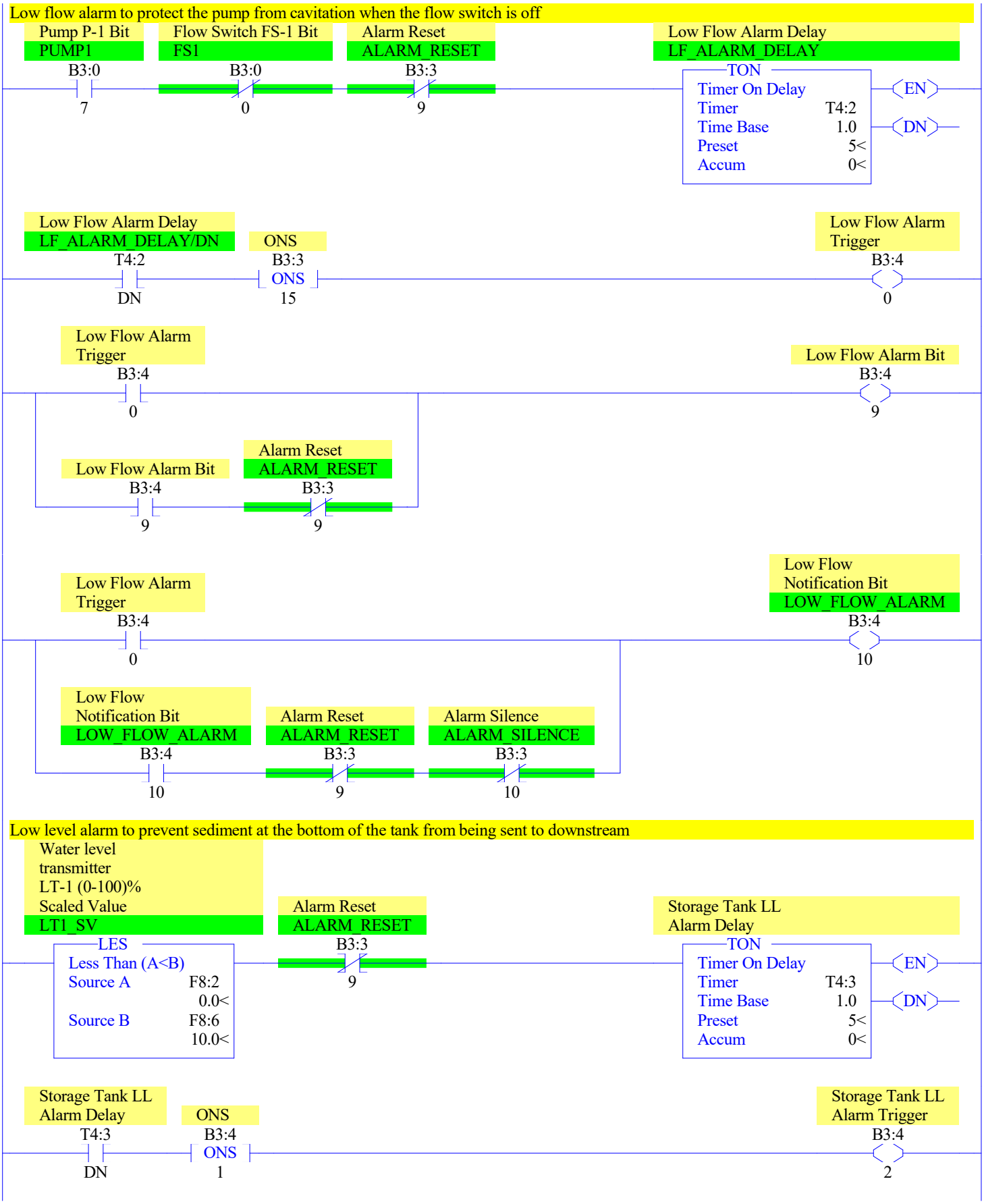

Flow Switch FS1
B9:0
0
Flow Switch FS-1 Bit
FS1
B3:0
0
0000
Solenoid Valve
SV1 Bit
SV1
B3:0
1
Solenoid Valve
SV-1
B9:0
1
0001
Solenoid Valve
SV2 Bit
SV2
B3:0
2
Solenoid Valve
SV-1
B9:0
2
0002
Solenoid Valve
SV3 Bit
SV3
B3:0
3
Solenoid Valve
SV-3
B9:0
3
0003
Solenoid Valve
SV4 Bit
SV4
B3:0
4
Solenoid Valve
SV-4
B9:0
4
0004
Solenoid Valve
SV5 Bit
SV5
B3:0
5
Solenoid Valve
SV-5
B9:0
5
0005
Solenoid Valve
SV6 Bit
SV6
B3:0
6
Solenoid Valve
SV-6
B9:0
6
0006
Pump P-1 Bit
PUMP1
B3:0
7
Pump P-1
B9:0
7
0007

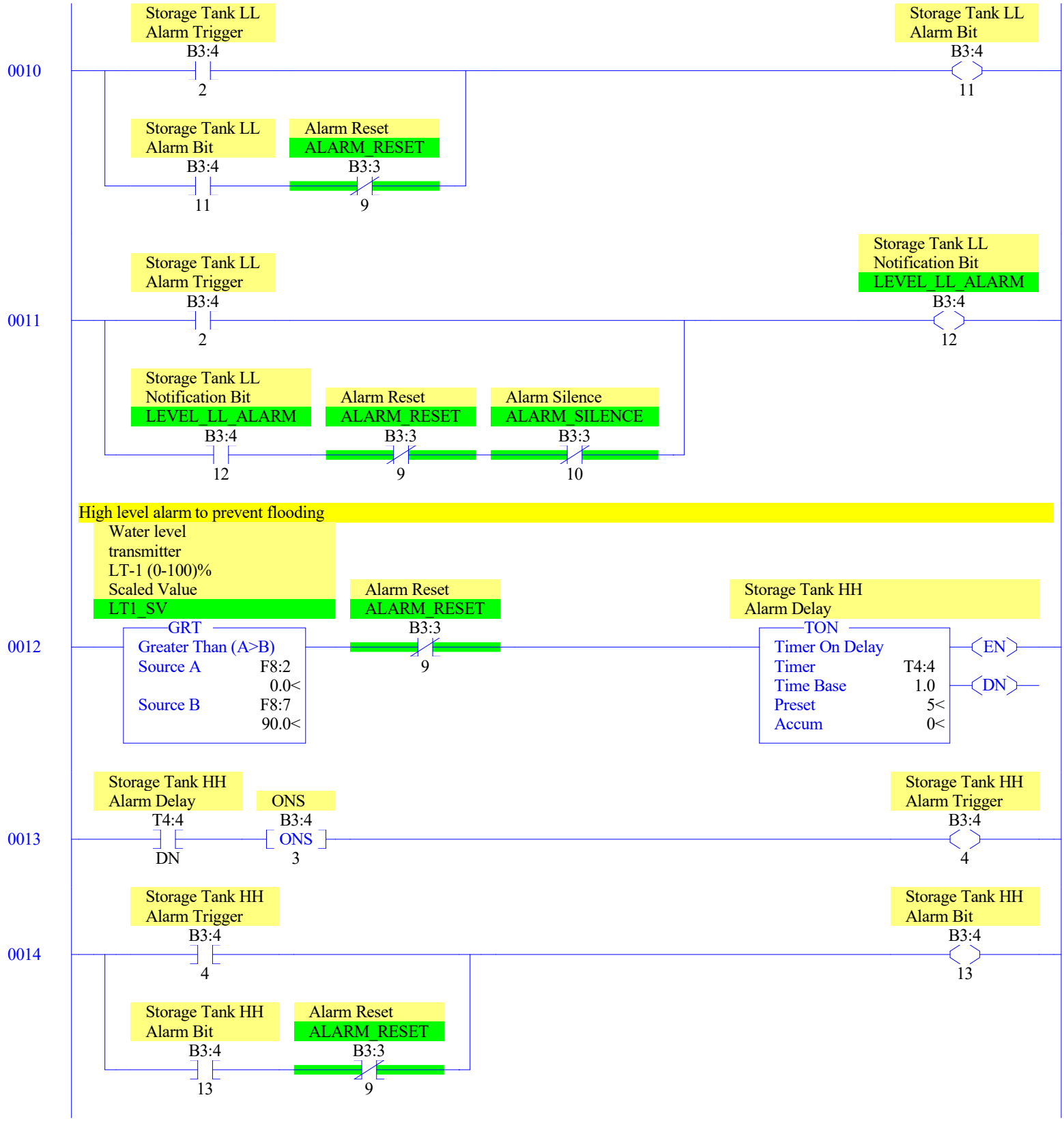

0008
Pressure Transmitter
PT-1 (0-20 psi)
Scaled Value
PT1_SV
SCP
Scale w/Parameters
Input N10:0
0<
Input Min. 0.0
0.0<
Input Max. 16383.0
16383.0<
Scaled Min. 0.0
0.0<
Scaled Max. 20.0
20.0<
Output F8:0
0.0<
Pressure Transmitter
PT1 (0-20) psi In
LES
Less Than (A<B)
Source A N10:0
0<
Source B 0
0<
Pressure Transmitter
PT-1 (0-20 psi)
Scaled Value
PT1_SV
MOV
Move
Source 0.0
0.0<
Dest F8:0
0.0<
Pressure Transmitter
PT1 (0-20) psi In
GRT
Greater Than (A>B)
Source A N10:0
0<
Source B 16383
16383<
Pressure Transmitter
PT-1 (0-20 psi)
Scaled Value
PT1_SV
MOV
Move
Source 20.0
20.0<
Dest F8:0
0.0<

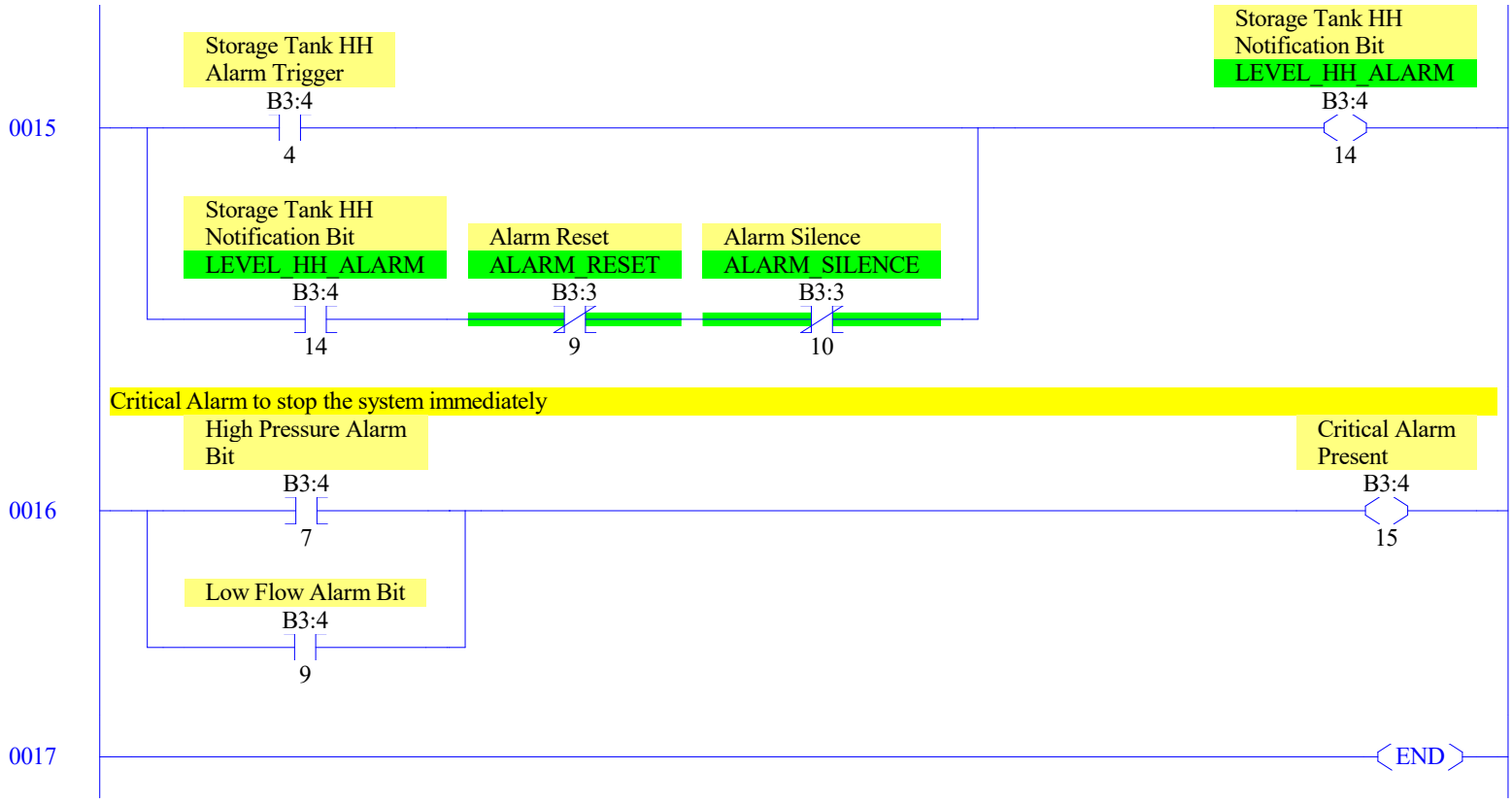

Pressure Transmitter
PT-2 (0-20 psi)
Scaled Value
PT2_SV
0009
SCP
Scale w/Parameters
Input N10:1
0<
Input Min. 0.0
0.0<
Input Max. 16383.0
16383.0<
Scaled Min. 0.0
0.0<
Scaled Max. 20.0
20.0<
Output F8:1
0.0<
Pressure Transmitter
PT-2 (0-20 psi)
Scaled Value
PT2_SV
Pressure Transmitter
PT2 (0-20) psi In
LES
Less Than (A<B)
Source A N10:1
0<
Source B 0
0<
MOV
Move
Source 0.0
0.0<
Dest F8:1
0.0<
Pressure Transmitter
PT-2 (0-20 psi)
Scaled Value
PT2_SV
Pressure Transmitter
PT2 (0-20) psi In
GRT
Greater Than (A>B)
Source A N10:1
0<
Source B 16383
16383<
MOV
Move
Source 20.0
20.0<
Dest F8:1
0.0<
Preliminary
Differential
Pressure
0010
SUB
Subtract
Source A F8:0
0.0<
Source B F8:1
0.0<
Dest F8:11
0.0<
Differential
Pressure
ABS
Absolute Value
Source F8:11
0.0<
Dest F8:3
0.0<

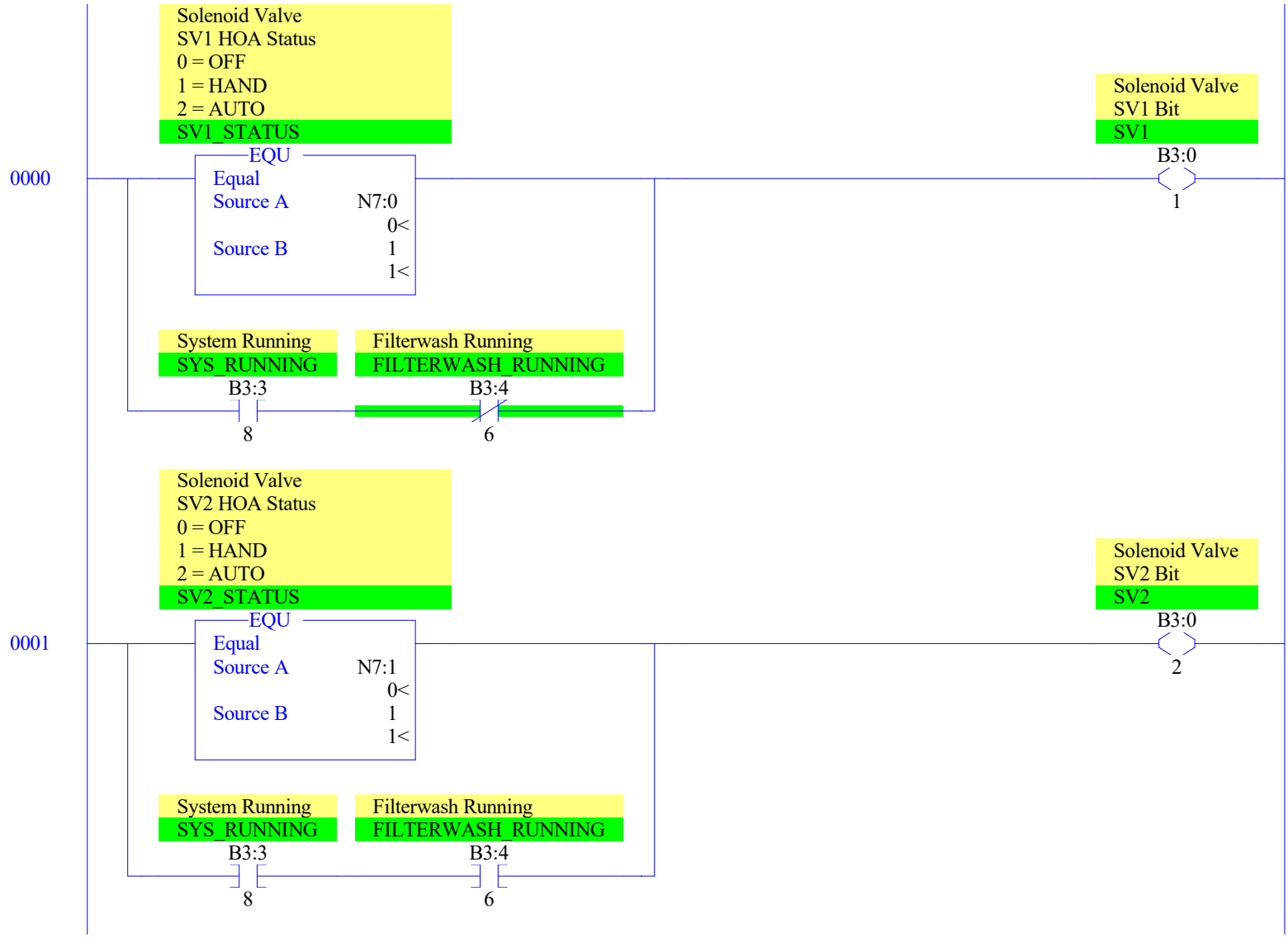

0011
Water level transmitter LT-1 (0-100)% Scaled Value
LT1_SV
SCP
Scale w/Parameters
Input N10:2 0<
Input Min. 0.0 0.0<
Input Max. 16383.0 16383.0<
Scaled Min. 0.0 0.0<
Scaled Max. 100.0 100.0<
Output F8:2 0.0<
Level Transmitter LT1 (0-100)% In
LES
Less Than (A<B)
Source A N10:2 0<
Source B 0 0<
Water level transmitter LT-1 (0-100)% Scaled Value
LT1_SV
MOV
Move
Source 0.0 0.0<
Dest F8:2 0.0<
Level Transmitter LT1 (0-100)% In
GRT
Greater Than (A>B)
Source A N10:2 0<
Source B 16383 16383<
Water level transmitter LT-1 (0-100)% Scaled Value
LT1_SV
MOV
Move
Source 100.0 100.0<
Dest F8:2 0.0<
0012
END

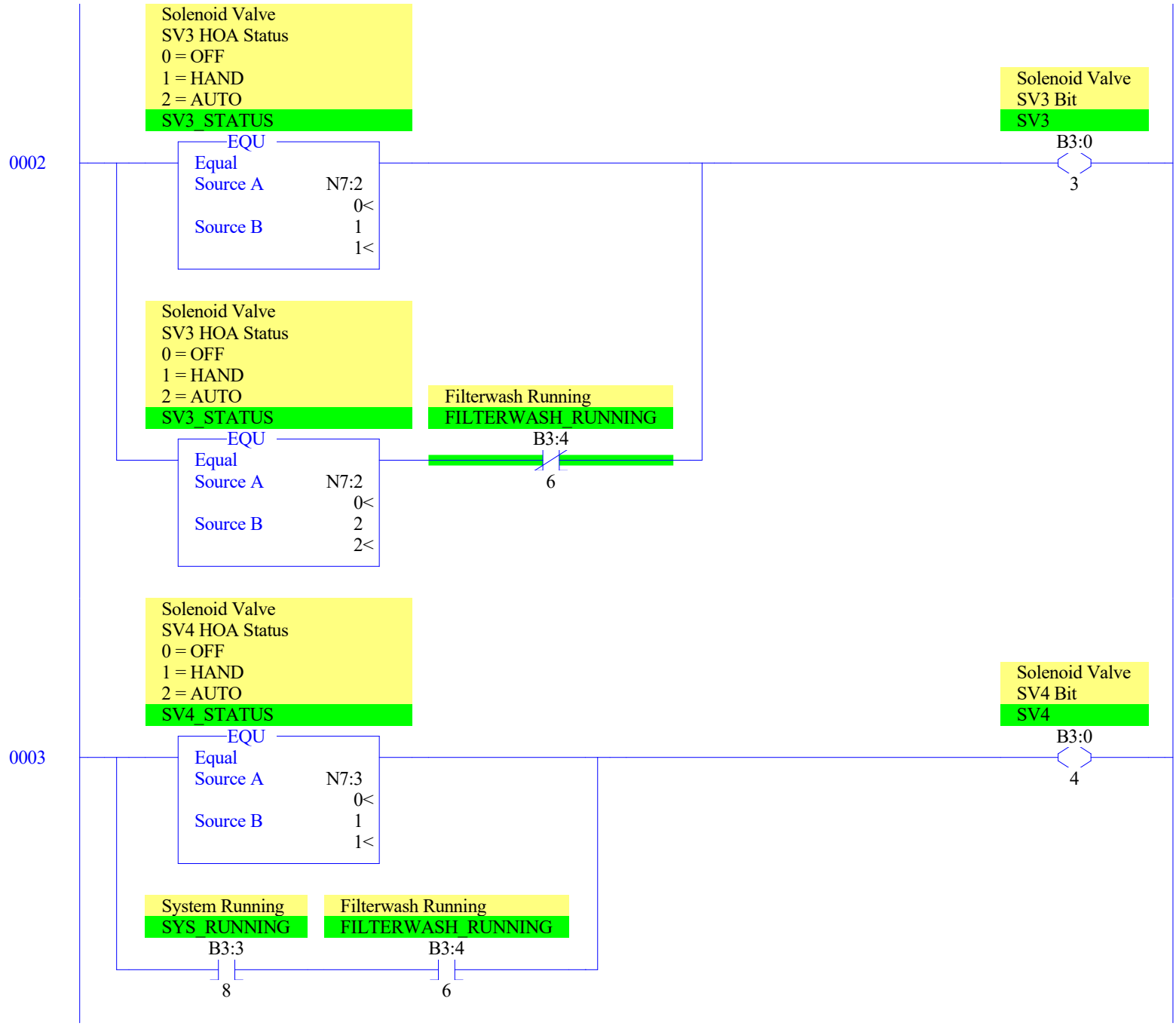

High pressure alarm to prevent explosions and messes. . .
Pressure Transmitter
PT-1 (0-20 psi)
Scaled Value
PT1_SV
GRT
Greater Than (A>B)
Source A F8:0
0.0<
Source B F8:5
15.0<
Alarm Reset
ALARM_RESET
B3:3
9
High Pressure Alarm
Delay
HP_ALARM_DELAY
TON
Timer On Delay
Timer T4:1
Time Base 1.0
Preset 5<
Accum 0<
EN
DN
0000
Pressure Transmitter
PT-2 (0-20 psi)
Scaled Value
PT2_SV
GRT
Greater Than (A>B)
Source A F8:1
0.0<
Source B F8:5
15.0<
High Pressure Alarm
Delay
HP_ALARM_DELAY/DN
T4:1
DN
ONS
ONS
B3:3
ONS
13
High Pressure Alarm
Trigger
B3:3
14
0001
High Pressure Alarm
Trigger
B3:3
14
High Pressure Alarm
Bit
B3:4
7
0002
High Pressure Alarm
Bit
B3:4
7
Alarm Reset
ALARM_RESET
B3:3
9
High Pressure Alarm
Trigger
B3:3
14
High Pressure
Notification Bit
PRESS_HH_ALARM
B3:4
8
0003
High Pressure
Notification Bit
PRESS_HH_ALARM
B3:4
8
Alarm Reset
ALARM_RESET
B3:3
9
Alarm Silence
ALARM_SILENCE
B3:3
10

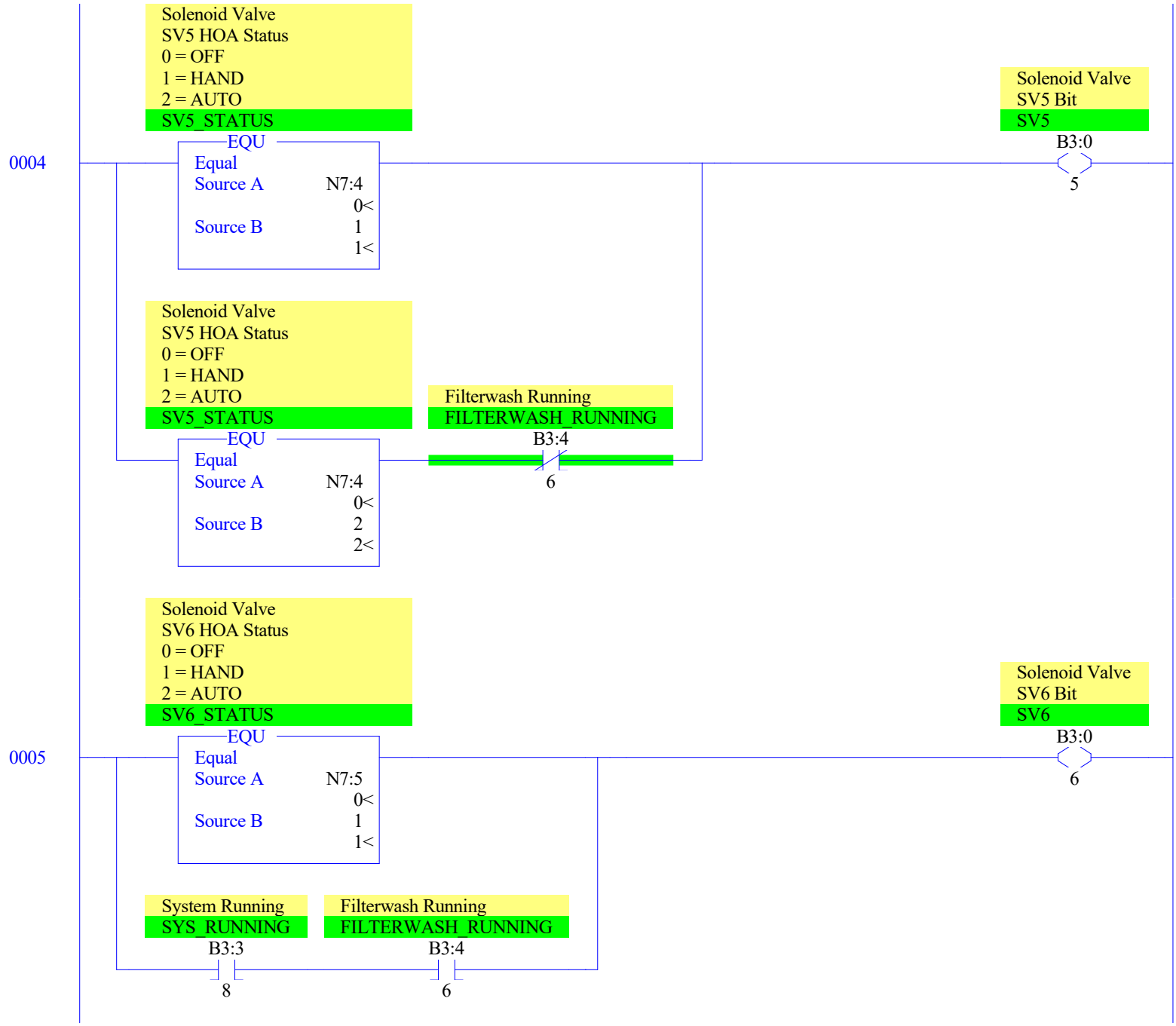

Low flow alarm to protect the pump from cavitation when the flow switch is off
Pump P-1 Bit
PUMP1
B3:0
7
Flow Switch FS-1 Bit
FS1
B3:0
0
Alarm Reset
ALARM_RESET
B3:3
9
Low Flow Alarm Delay
LF_ALARM_DELAY
TON
Timer On Delay
Timer T4:2
Time Base 1.0
Preset 5<
Accum 0<
EN
DN
0004
Low Flow Alarm Delay
LF_ALARM_DELAY/DN
T4:2
DN
ONS
B3:3
ONS
15
Low Flow Alarm
Trigger
B3:4
0
0005
Low Flow Alarm
Trigger
B3:4
0
Low Flow Alarm Bit
B3:4
9
0006
Low Flow Alarm Bit
B3:4
9
Alarm Reset
ALARM_RESET
B3:3
9
Low Flow Alarm
Trigger
B3:4
0
Low Flow
Notification Bit
LOW_FLOW_ALARM
B3:4
10
0007
Low Flow
Notification Bit
LOW_FLOW_ALARM
B3:4
10
Alarm Reset
ALARM_RESET
B3:3
9
Alarm Silence
ALARM_SILENCE
B3:3
10
Low level alarm to prevent sediment at the bottom of the tank from being sent to downstream
Water level
transmitter
LT-1 (0-100)%
Scaled Value
LT1_SV
LES
Less Than (A<B)
Source A F8:2
0.0<
Source B F8:6
10.0<
Alarm Reset
ALARM_RESET
B3:3
9
Storage Tank LL
Alarm Delay
TON
Timer On Delay
Timer T4:3
Time Base 1.0
Preset 5<
Accum 0<
EN
DN
0008
Storage Tank LL
Alarm Delay
T4:3
DN
ONS
B3:4
ONS
1
Storage Tank LL
Alarm Trigger
B3:4
2
0009

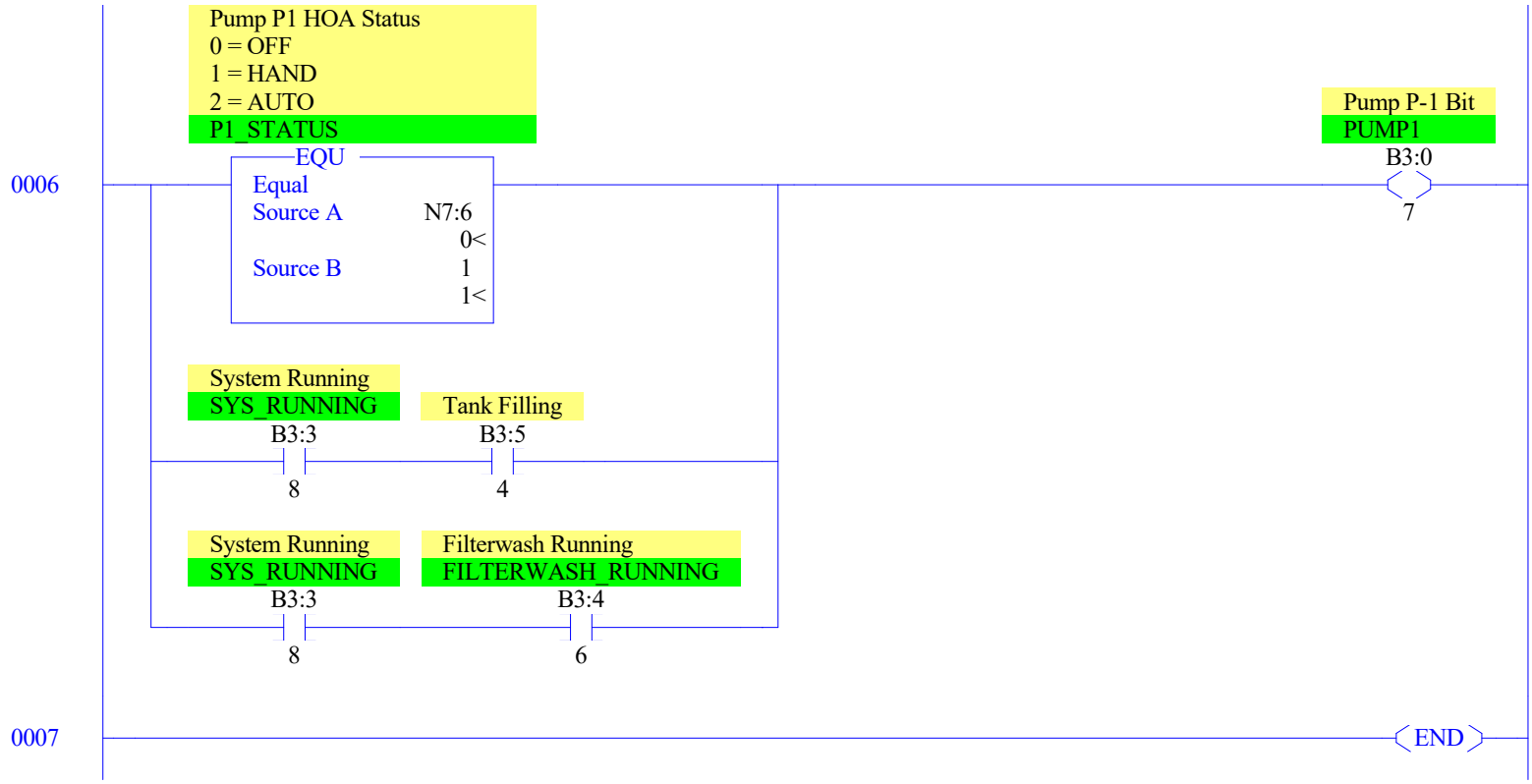

0010
Storage Tank LL Alarm Trigger
B3:4
2
Storage Tank LL Alarm Bit
B3:4
11
Storage Tank LL Alarm Bit
B3:4
11
Alarm Reset
ALARM_RESET
B3:3
9
0011
Storage Tank LL Alarm Trigger
B3:4
2
Storage Tank LL Notification Bit
LEVEL_LL_ALARM
B3:4
12
Storage Tank LL Notification Bit
LEVEL_LL_ALARM
B3:4
12
Alarm Reset
ALARM_RESET
B3:3
9
Alarm Silence
ALARM_SILENCE
B3:3
10
High level alarm to prevent flooding
0012
Water level transmitter
LT-1 (0-100)%
Scaled Value
LT1_SV
GRT
Greater Than (A>B)
Source A F8:2 0.0<
Source B F8:7 90.0<
Alarm Reset
ALARM_RESET
B3:3
9
Storage Tank HH Alarm Delay
TON
Timer On Delay
Timer T4:4
Time Base 1.0
Preset 5<
Accum 0<
EN
DN
0013
Storage Tank HH Alarm Delay
T4:4
DN
ONS
B3:4
ONS
3
Storage Tank HH Alarm Trigger
B3:4
4
0014
Storage Tank HH Alarm Trigger
B3:4
4
Storage Tank HH Alarm Bit
B3:4
13
Storage Tank HH Alarm Bit
B3:4
13
Alarm Reset
ALARM_RESET
B3:3
9

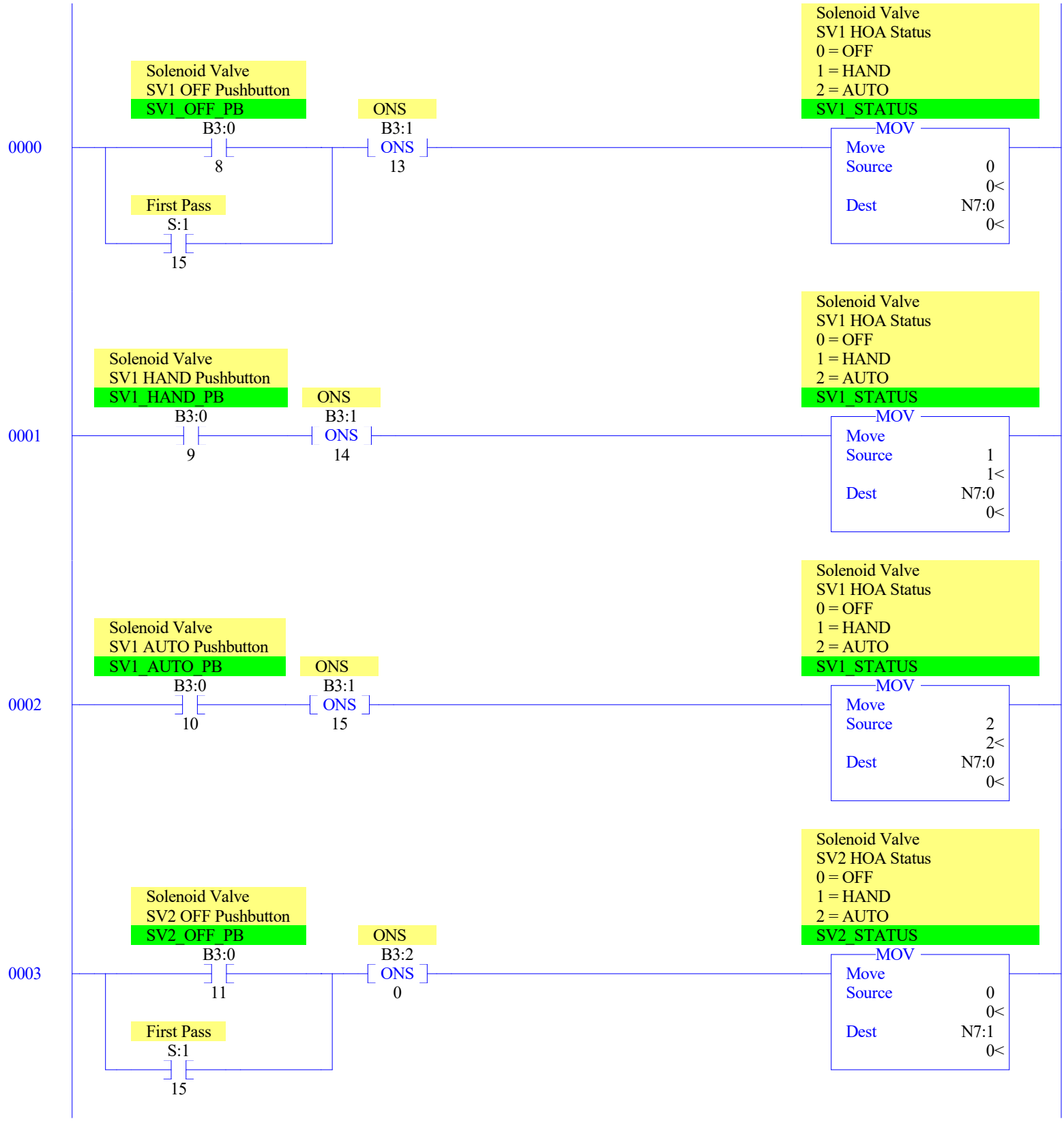

0015
Storage Tank HH Alarm Trigger
B3:4
4
Storage Tank HH Notification Bit
LEVEL_HH_ALARM
B3:4
14
Storage Tank HH Notification Bit
LEVEL_HH_ALARM
B3:4
14
Alarm Reset
ALARM_RESET
B3:3
9
Alarm Silence
ALARM_SILENCE
B3:3
10
Critical Alarm to stop the system immediately
0016
High Pressure Alarm Bit
B3:4
7
Low Flow Alarm Bit
B3:4
9
Critical Alarm Present
B3:4
15
0017
END

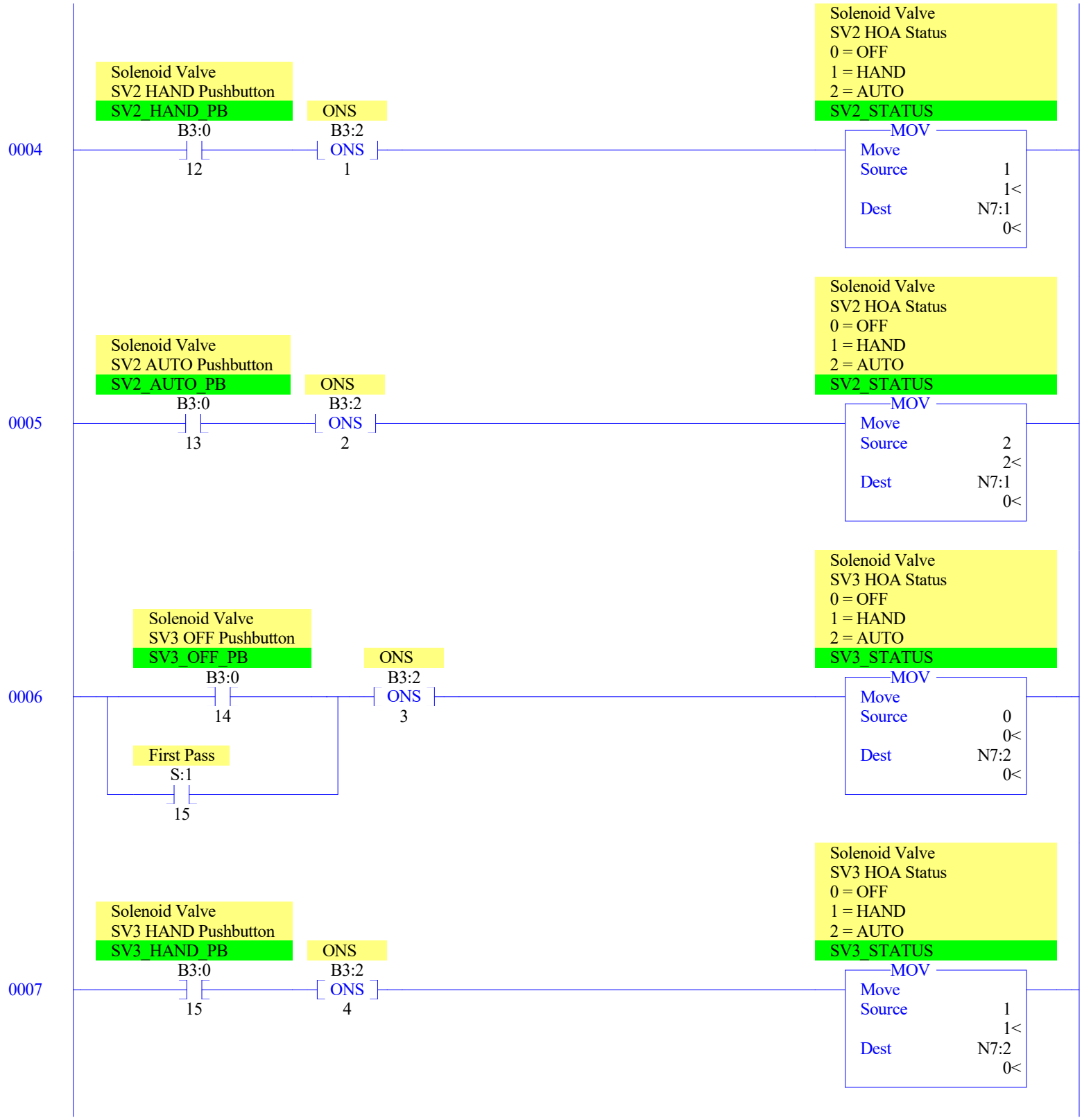

Solenoid Valve
SV1 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV1_STATUS
EQU
Equal
Source A
N7:0
0<
Source B
1
1<
Solenoid Valve
SV1 Bit
SV1
B3:0
1
0000
System Running
SYS_RUNNING
B3:3
8
Filterwash Running
FILTERWASH_RUNNING
B3:4
6
Solenoid Valve
SV2 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV2_STATUS
EQU
Equal
Source A
N7:1
0<
Source B
1
1<
Solenoid Valve
SV2 Bit
SV2
B3:0
2
0001
System Running
SYS_RUNNING
B3:3
8
Filterwash Running
FILTERWASH_RUNNING
B3:4
6

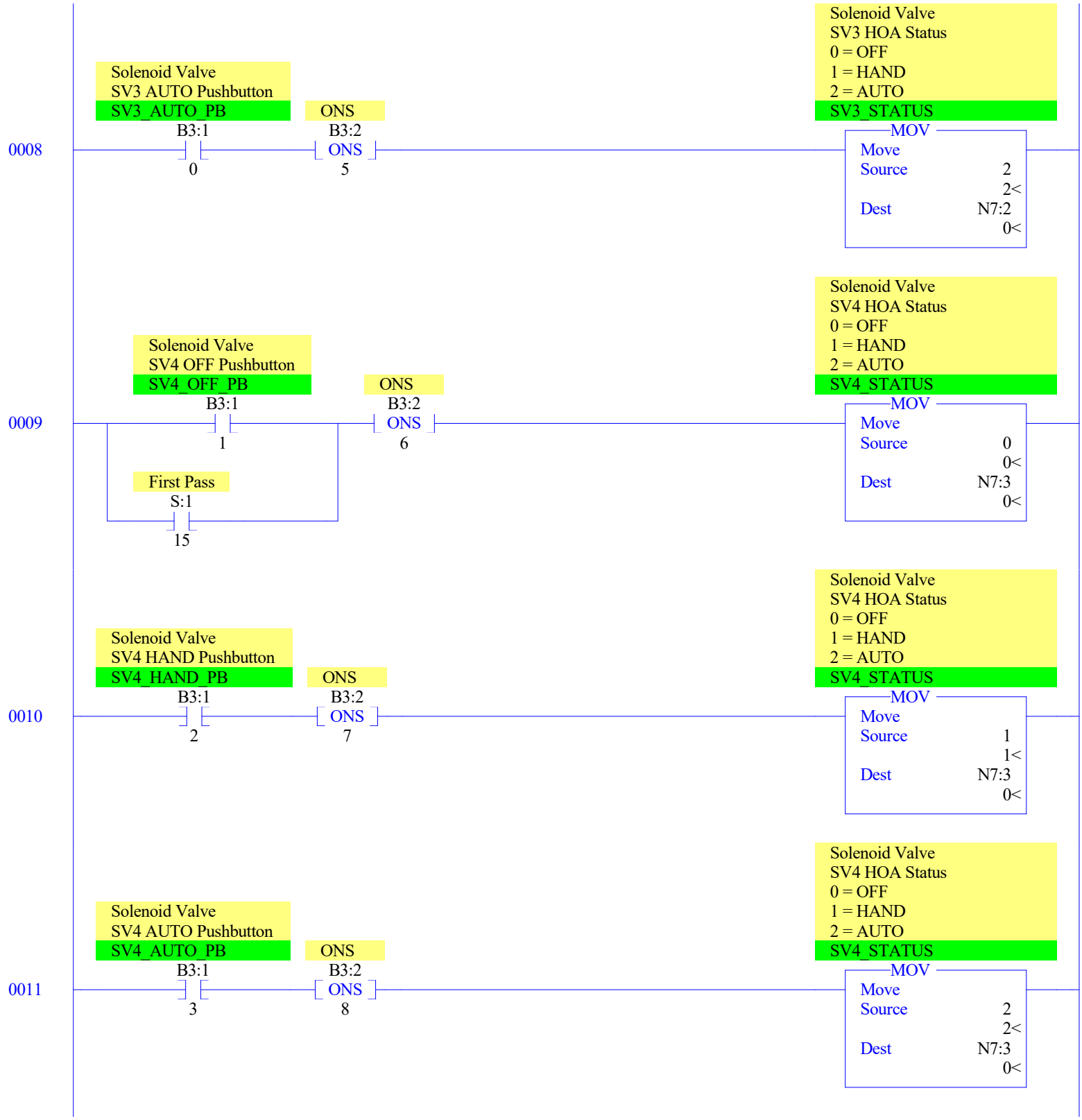

Solenoid Valve
SV3 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV3_STATUS
EQU
Equal
Source A N7:2
0<
Source B 1
1<
Solenoid Valve
SV3 Bit
SV3
B3:0
3
0002
Solenoid Valve
SV3 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV3_STATUS
EQU
Equal
Source A N7:2
0<
Source B 2
2<
Filterwash Running
FILTERWASH_RUNNING
B3:4
6
Solenoid Valve
SV4 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV4_STATUS
EQU
Equal
Source A N7:3
0<
Source B 1
1<
Solenoid Valve
SV4 Bit
SV4
B3:0
4
0003
System Running
SYS_RUNNING
B3:3
8
Filterwash Running
FILTERWASH_RUNNING
B3:4
6

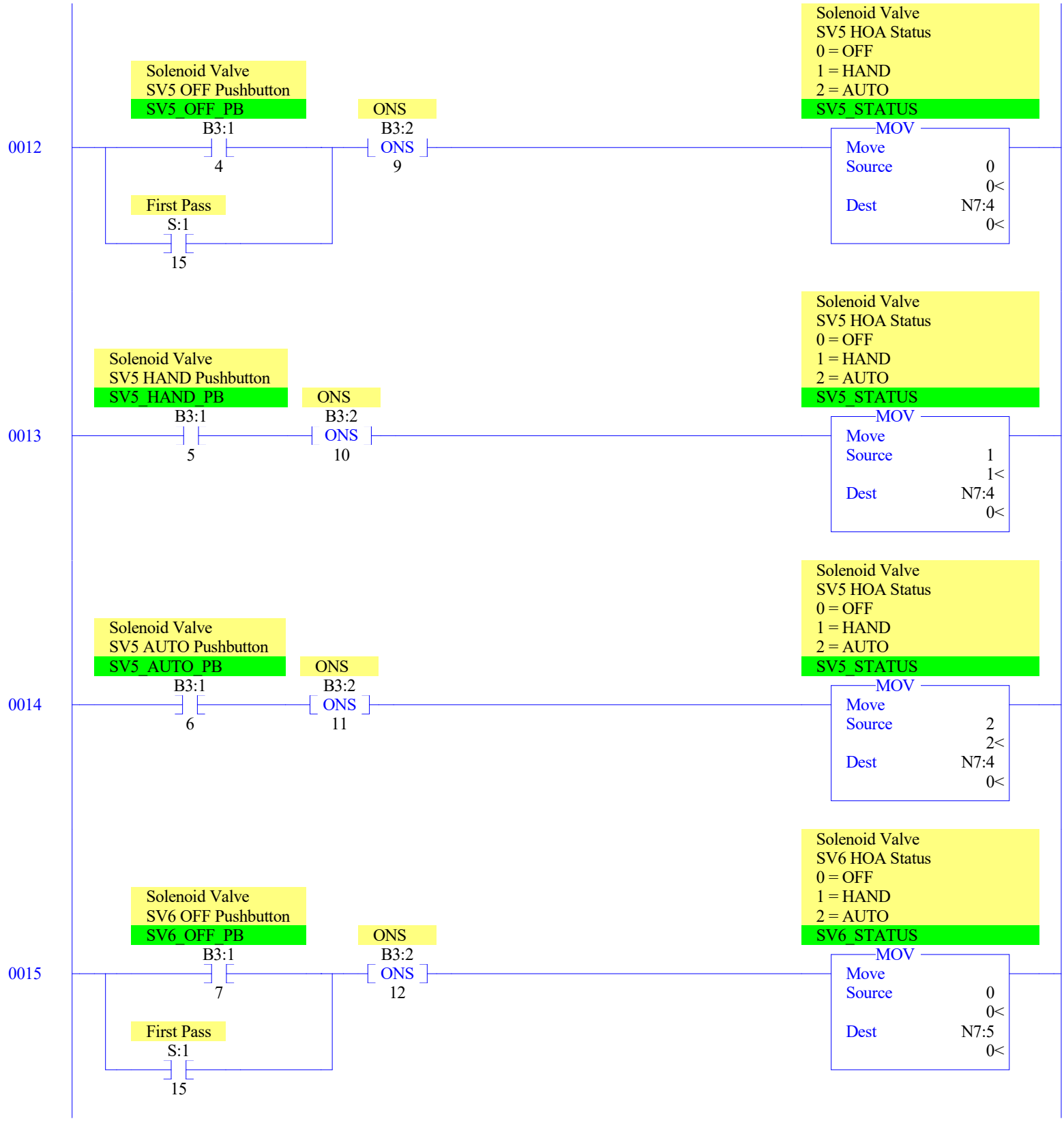

0004
Solenoid Valve
SV5 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV5_STATUS
EQU
Equal
Source A N7:4
0<
Source B 1
1<
Solenoid Valve
SV5 Bit
SV5
B3:0
5
Solenoid Valve
SV5 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV5_STATUS
EQU
Equal
Source A N7:4
0<
Source B 2
2<
Filterwash Running
FILTERWASH_RUNNING
B3:4
6
0005
Solenoid Valve
SV6 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV6_STATUS
EQU
Equal
Source A N7:5
0<
Source B 1
1<
Solenoid Valve
SV6 Bit
SV6
B3:0
6
System Running
SYS_RUNNING
B3:3
8
Filterwash Running
FILTERWASH_RUNNING
B3:4
6

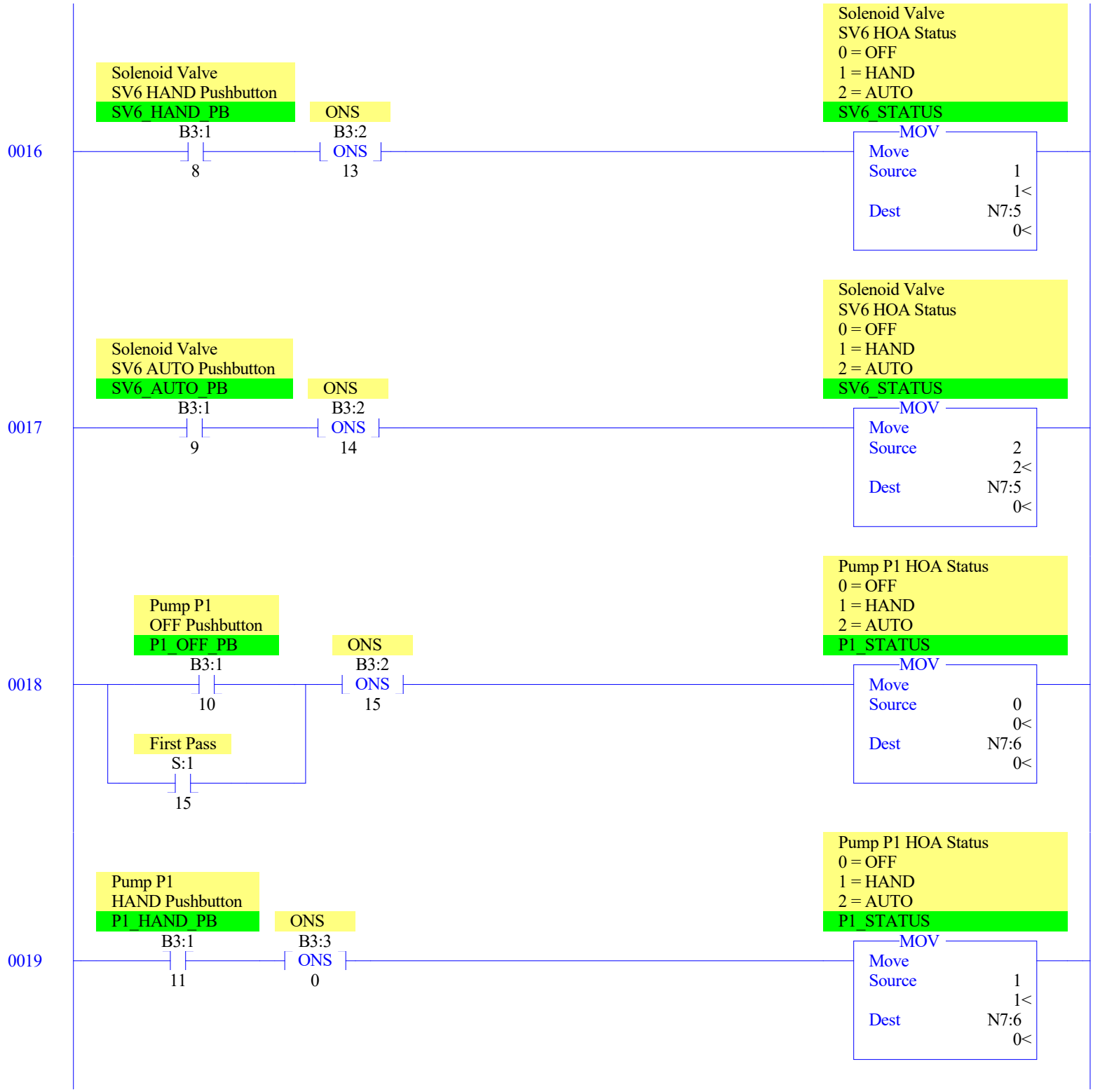

Pump P1 HOA Status
0 = OFF
1 = HAND
2 = AUTO
P1_STATUS
EQU
Equal
Source A
N7:6
0<
Source B
1
1<
Pump P-1 Bit
PUMP1
B3:0
7
0006
System Running
SYS_RUNNING
B3:3
8
Tank Filling
B3:5
4
System Running
SYS_RUNNING
B3:3
8
Filterwash Running
FILTERWASH_RUNNING
B3:4
6
0007
END

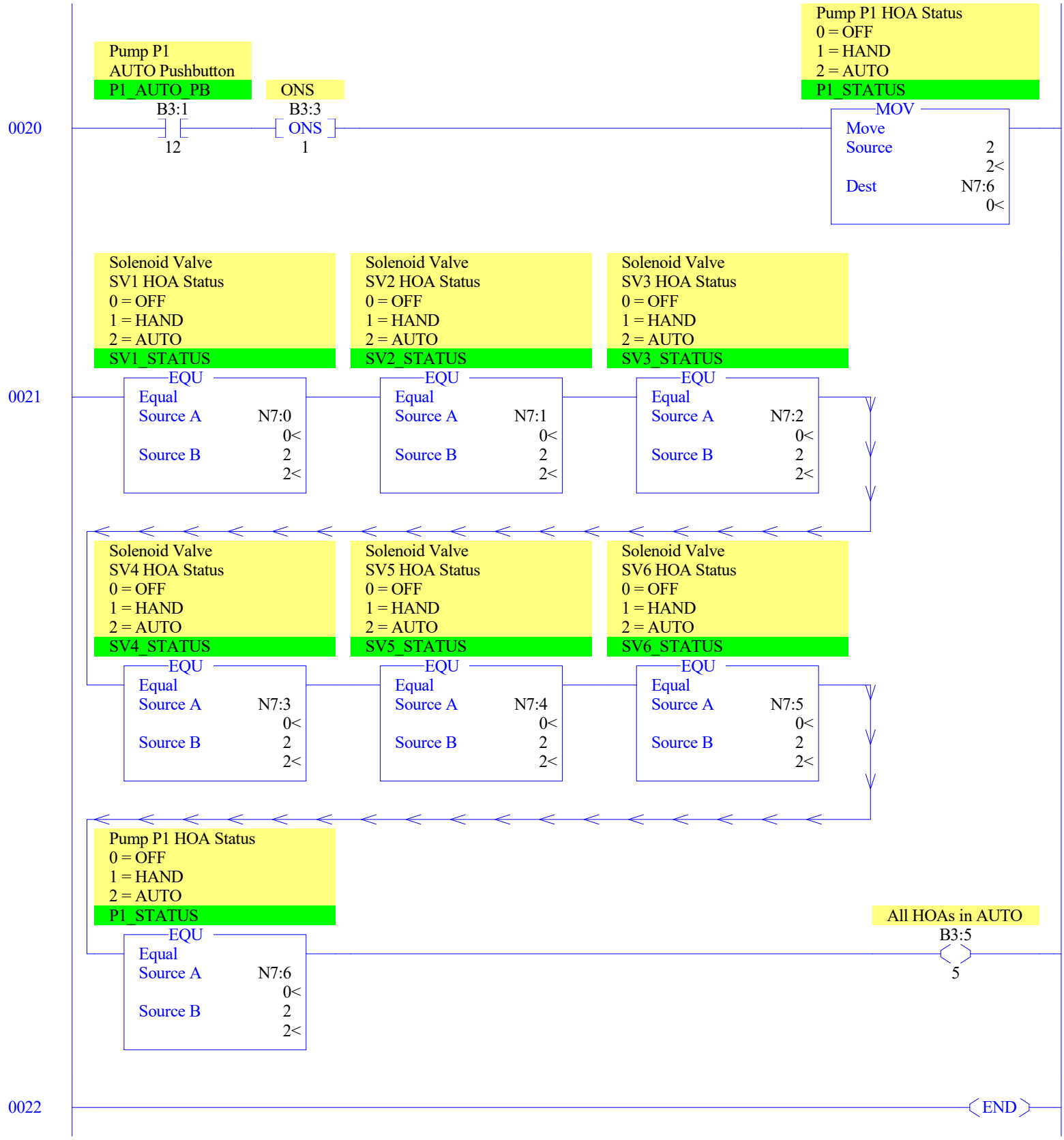

0000
Solenoid Valve
SV1 OFF Pushbutton
SV1_OFF_PB
B3:0
8
ONS
B3:1
ONS
13
First Pass
S:1
15
Solenoid Valve
SV1 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV1_STATUS
MOV
Move
Source
0
0<
Dest
N7:0
0<
0001
Solenoid Valve
SV1 HAND Pushbutton
SV1_HAND_PB
B3:0
9
ONS
B3:1
ONS
14
Solenoid Valve
SV1 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV1_STATUS
MOV
Move
Source
1
1<
Dest
N7:0
0<
0002
Solenoid Valve
SV1 AUTO Pushbutton
SV1_AUTO_PB
B3:0
10
ONS
B3:1
ONS
15
Solenoid Valve
SV1 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV1_STATUS
MOV
Move
Source
2
2<
Dest
N7:0
0<
0003
Solenoid Valve
SV2 OFF Pushbutton
SV2_OFF_PB
B3:0
11
ONS
B3:2
ONS
0
First Pass
S:1
15
Solenoid Valve
SV2 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV2_STATUS
MOV
Move
Source
0
0<
Dest
N7:1
0<

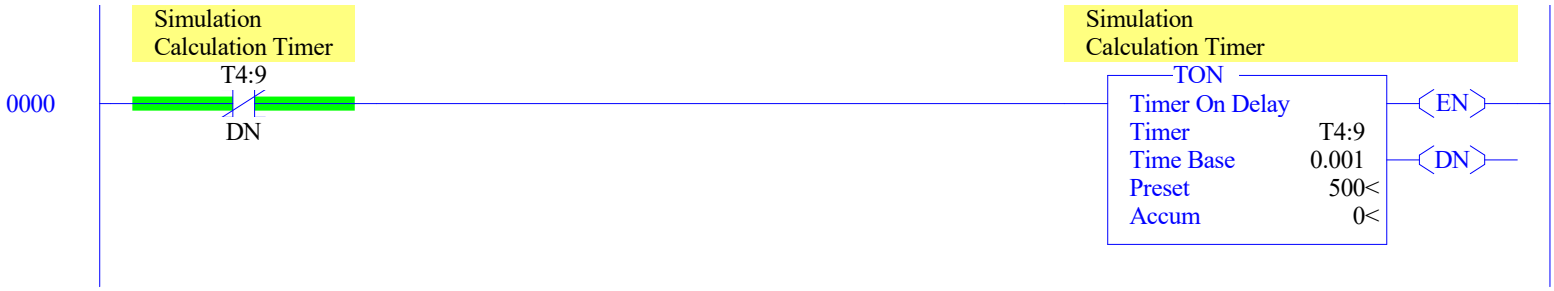

0004
Solenoid Valve
SV2 HAND Pushbutton
SV2_HAND_PB
B3:0
12
ONS
B3:2
ONS
1
Solenoid Valve
SV2 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV2_STATUS
MOV
Move
Source
1
1<
Dest
N7:1
0<
0005
Solenoid Valve
SV2 AUTO Pushbutton
SV2_AUTO_PB
B3:0
13
ONS
B3:2
ONS
2
Solenoid Valve
SV2 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV2_STATUS
MOV
Move
Source
2
2<
Dest
N7:1
0<
0006
Solenoid Valve
SV3 OFF Pushbutton
SV3_OFF_PB
B3:0
14
ONS
B3:2
ONS
3
First Pass
S:1
15
Solenoid Valve
SV3 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV3_STATUS
MOV
Move
Source
0
0<
Dest
N7:2
0<
0007
Solenoid Valve
SV3 HAND Pushbutton
SV3_HAND_PB
B3:0
15
ONS
B3:2
ONS
4
Solenoid Valve
SV3 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV3_STATUS
MOV
Move
Source
1
1<
Dest
N7:2
0<

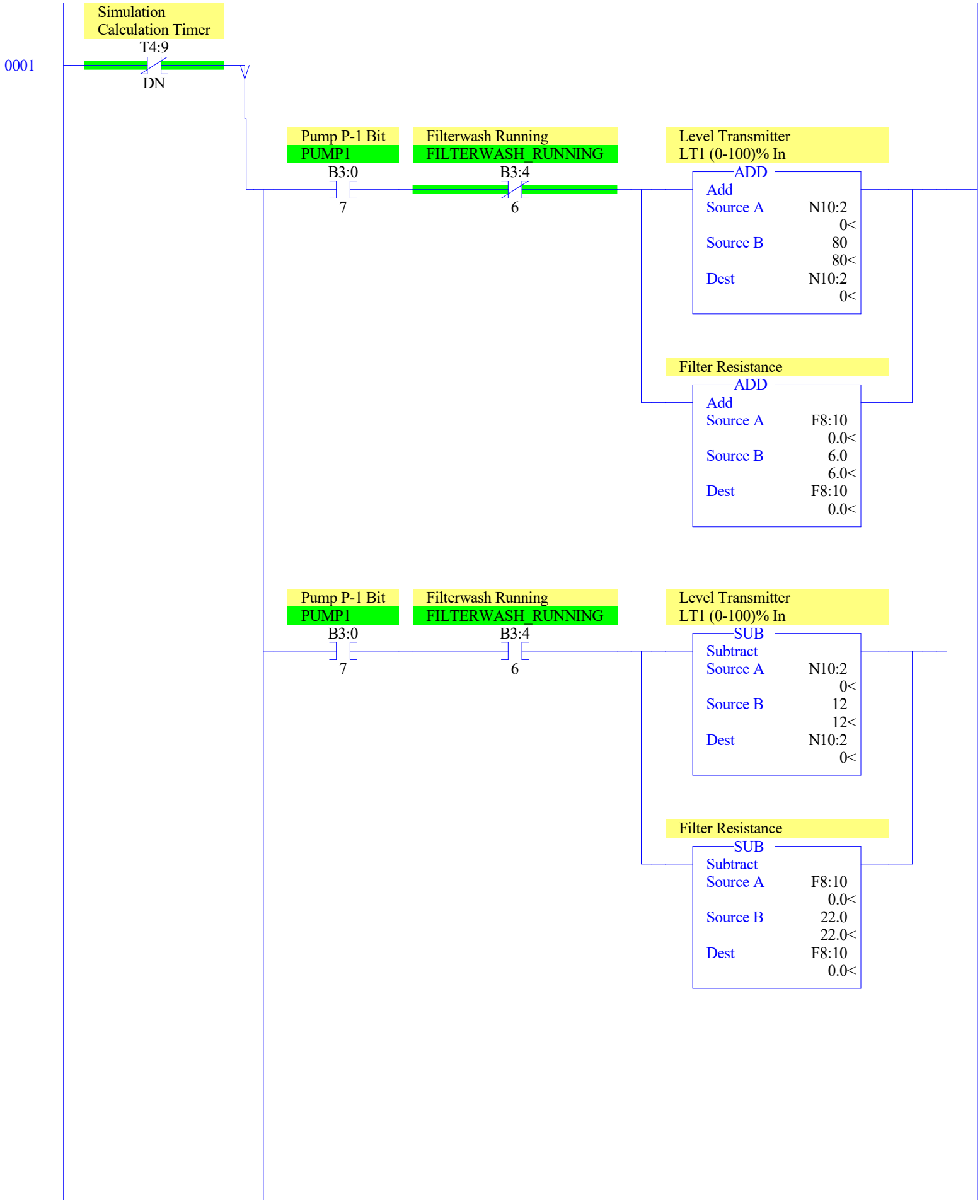

0008
Solenoid Valve
SV3 AUTO Pushbutton
SV3_AUTO_PB
B3:1
0
ONS
B3:2
ONS
5
Solenoid Valve
SV3 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV3_STATUS
MOV
Move
Source
2
2<
Dest
N7:2
0<
0009
Solenoid Valve
SV4 OFF Pushbutton
SV4_OFF_PB
B3:1
1
ONS
B3:2
ONS
6
First Pass
S:1
15
Solenoid Valve
SV4 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV4_STATUS
MOV
Move
Source
0
0<
Dest
N7:3
0<
0010
Solenoid Valve
SV4 HAND Pushbutton
SV4_HAND_PB
B3:1
2
ONS
B3:2
ONS
7
Solenoid Valve
SV4 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV4_STATUS
MOV
Move
Source
1
1<
Dest
N7:3
0<
0011
Solenoid Valve
SV4 AUTO Pushbutton
SV4_AUTO_PB
B3:1
3
ONS
B3:2
ONS
8
Solenoid Valve
SV4 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV4_STATUS
MOV
Move
Source
2
2<
Dest
N7:3
0<

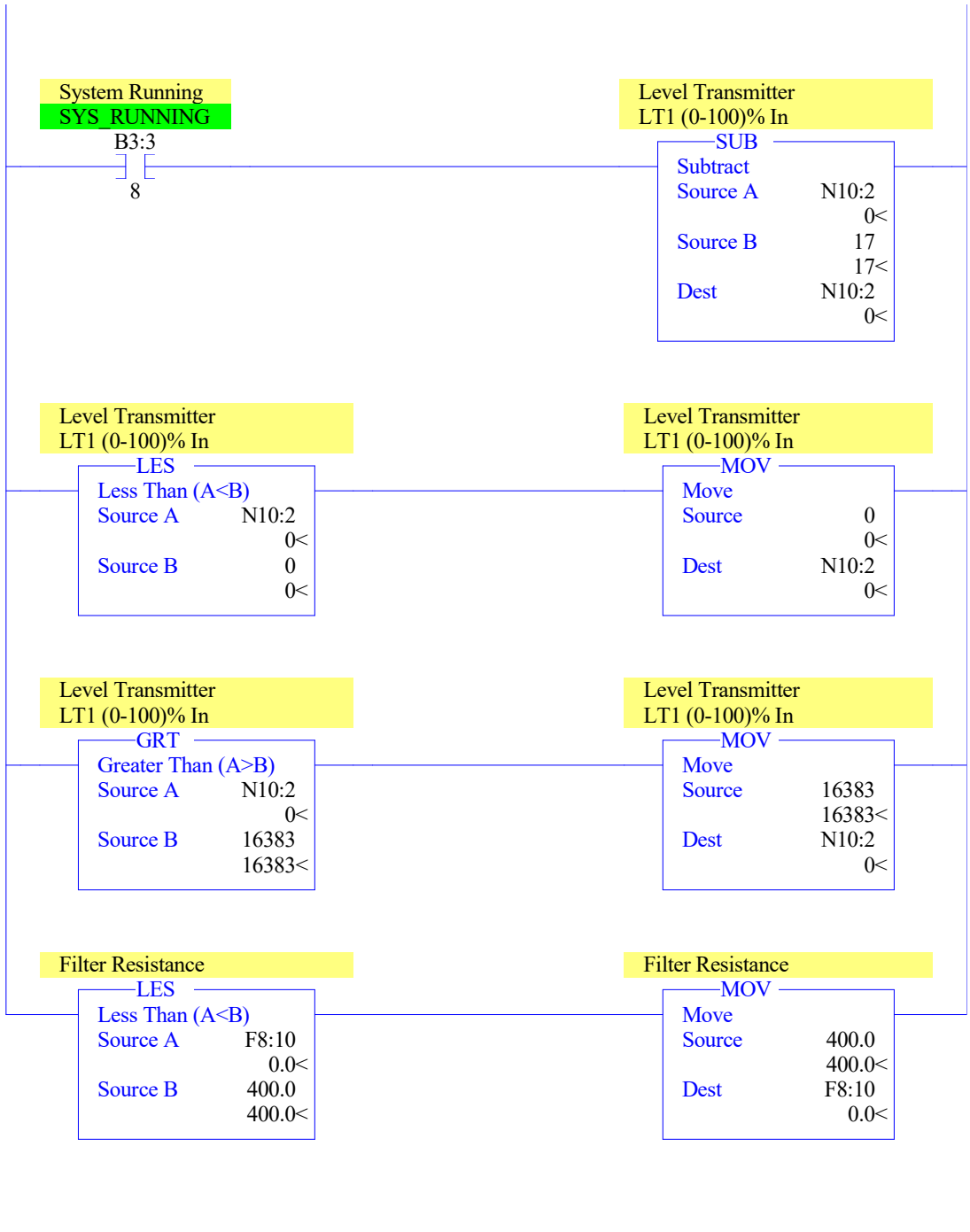

0012
Solenoid Valve
SV5 OFF Pushbutton
SV5_OFF_PB
B3:1
4
ONS
B3:2
ONS
9
First Pass
S:1
15
Solenoid Valve
SV5 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV5_STATUS
MOV
Move
Source
0
0<
Dest
N7:4
0<
0013
Solenoid Valve
SV5 HAND Pushbutton
SV5_HAND_PB
B3:1
5
ONS
B3:2
ONS
10
Solenoid Valve
SV5 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV5_STATUS
MOV
Move
Source
1
1<
Dest
N7:4
0<
0014
Solenoid Valve
SV5 AUTO Pushbutton
SV5_AUTO_PB
B3:1
6
ONS
B3:2
ONS
11
Solenoid Valve
SV5 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV5_STATUS
MOV
Move
Source
2
2<
Dest
N7:4
0<
0015
Solenoid Valve
SV6 OFF Pushbutton
SV6_OFF_PB
B3:1
7
ONS
B3:2
ONS
12
First Pass
S:1
15
Solenoid Valve
SV6 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV6_STATUS
MOV
Move
Source
0
0<
Dest
N7:5
0<

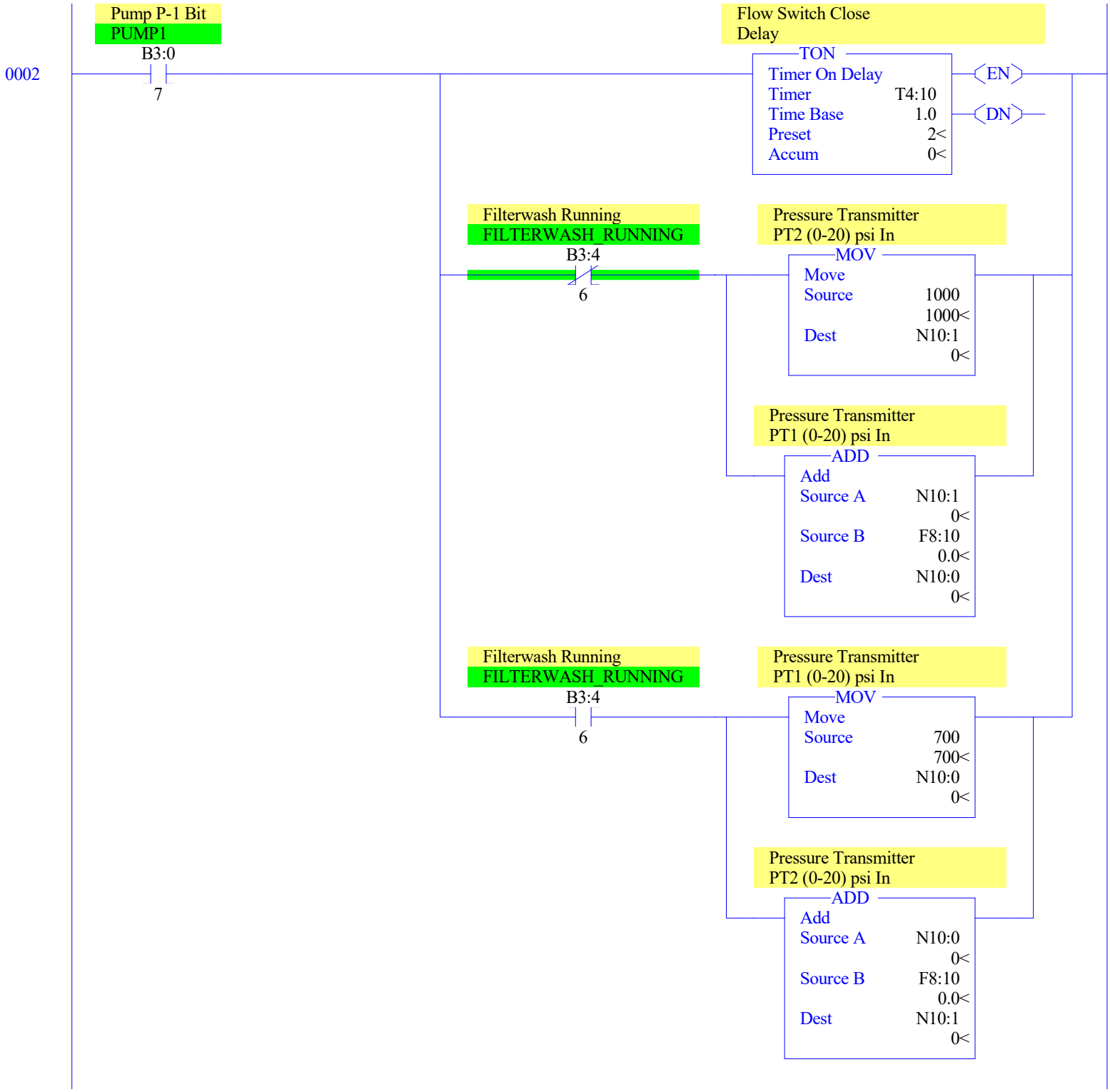

Solenoid Valve
SV6 HAND Pushbutton
SV6_HAND_PB
B3:1
8
ONS
B3:2
ONS
13
Solenoid Valve
SV6 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV6_STATUS
MOV
Move
Source
1
1<
Dest
N7:5
0<
0016
Solenoid Valve
SV6 AUTO Pushbutton
SV6_AUTO_PB
B3:1
9
ONS
B3:2
ONS
14
Solenoid Valve
SV6 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV6_STATUS
MOV
Move
Source
2
2<
Dest
N7:5
0<
0017
Pump P1
OFF Pushbutton
P1_OFF_PB
B3:1
10
ONS
B3:2
ONS
15
First Pass
S:1
15
Pump P1 HOA Status
0 = OFF
1 = HAND
2 = AUTO
P1_STATUS
MOV
Move
Source
0
0<
Dest
N7:6
0<
0018
Pump P1
HAND Pushbutton
P1_HAND_PB
B3:1
11
ONS
B3:3
ONS
0
Pump P1 HOA Status
0 = OFF
1 = HAND
2 = AUTO
P1_STATUS
MOV
Move
Source
1
1<
Dest
N7:6
0<
0019

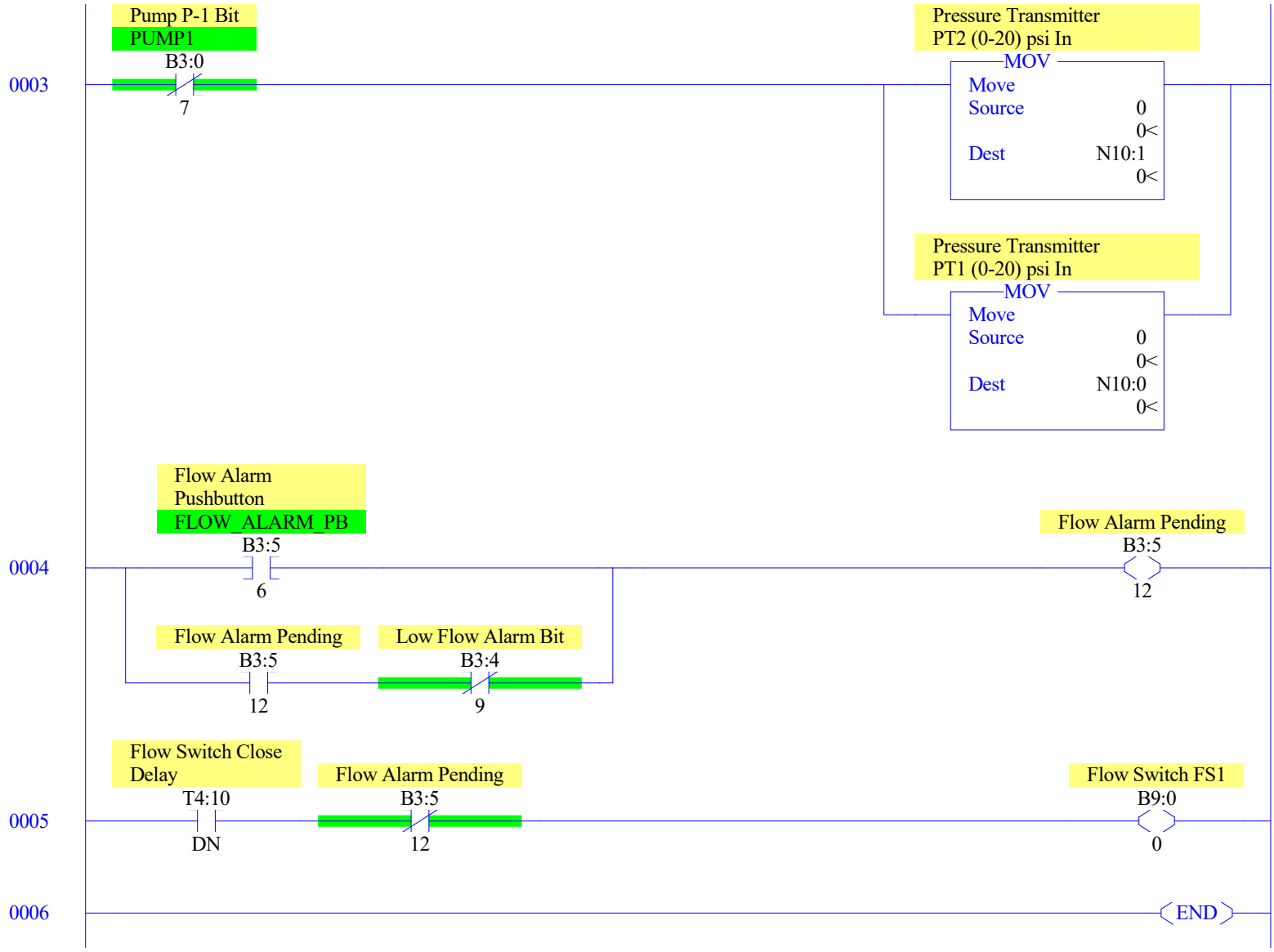

Pump P1
AUTO Pushbutton
P1_AUTO_PB
B3:1
12
ONS
B3:3
ONS
1
Pump P1 HOA Status
0 = OFF
1 = HAND
2 = AUTO
P1_STATUS
MOV
Move
Source 2
2<
Dest N7:6
0<
0020
Solenoid Valve
SV1 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV1_STATUS
Solenoid Valve
SV2 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV2_STATUS
Solenoid Valve
SV3 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV3_STATUS
EQU
Equal
Source A N7:0
0<
Source B 2
2<
EQU
Equal
Source A N7:1
0<
Source B 2
2<
EQU
Equal
Source A N7:2
0<
Source B 2
2<
0021
Solenoid Valve
SV4 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV4_STATUS
Solenoid Valve
SV5 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV5_STATUS
Solenoid Valve
SV6 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV6_STATUS
EQU
Equal
Source A N7:3
0<
Source B 2
2<
EQU
Equal
Source A N7:4
0<
Source B 2
2<
EQU
Equal
Source A N7:5
0<
Source B 2
2<
Pump P1 HOA Status
0 = OFF
1 = HAND
2 = AUTO
P1_STATUS
EQU
Equal
Source A N7:6
0<
Source B 2
2<
All HOAs in AUTO
B3:5
5
0022
END

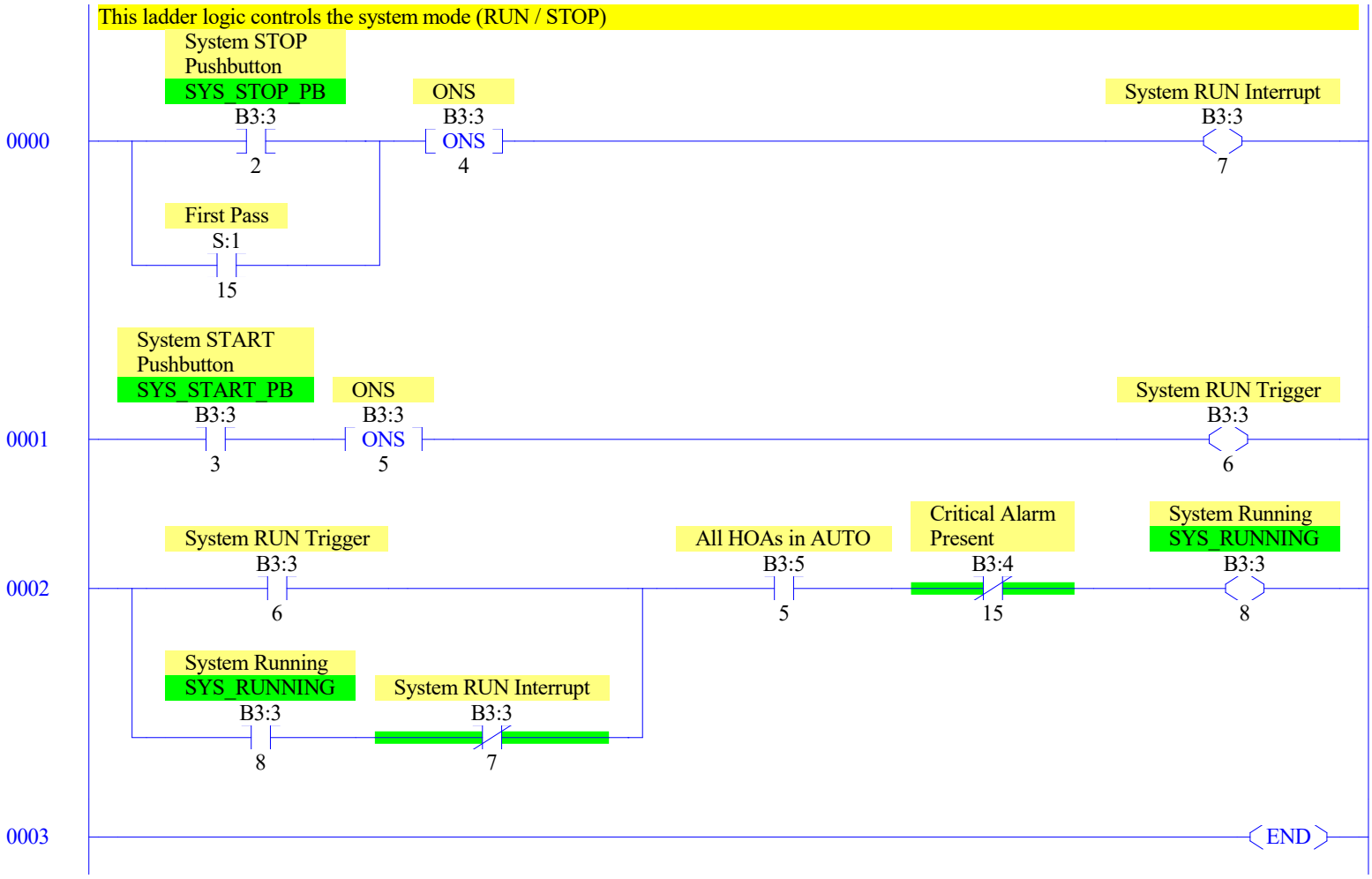

Simulation
Calculation Timer
T4:9
DN
0000
Simulation
Calculation Timer
TON
Timer On Delay
Timer T4:9
Time Base 0.001
Preset 500<
Accum 0<
EN
DN

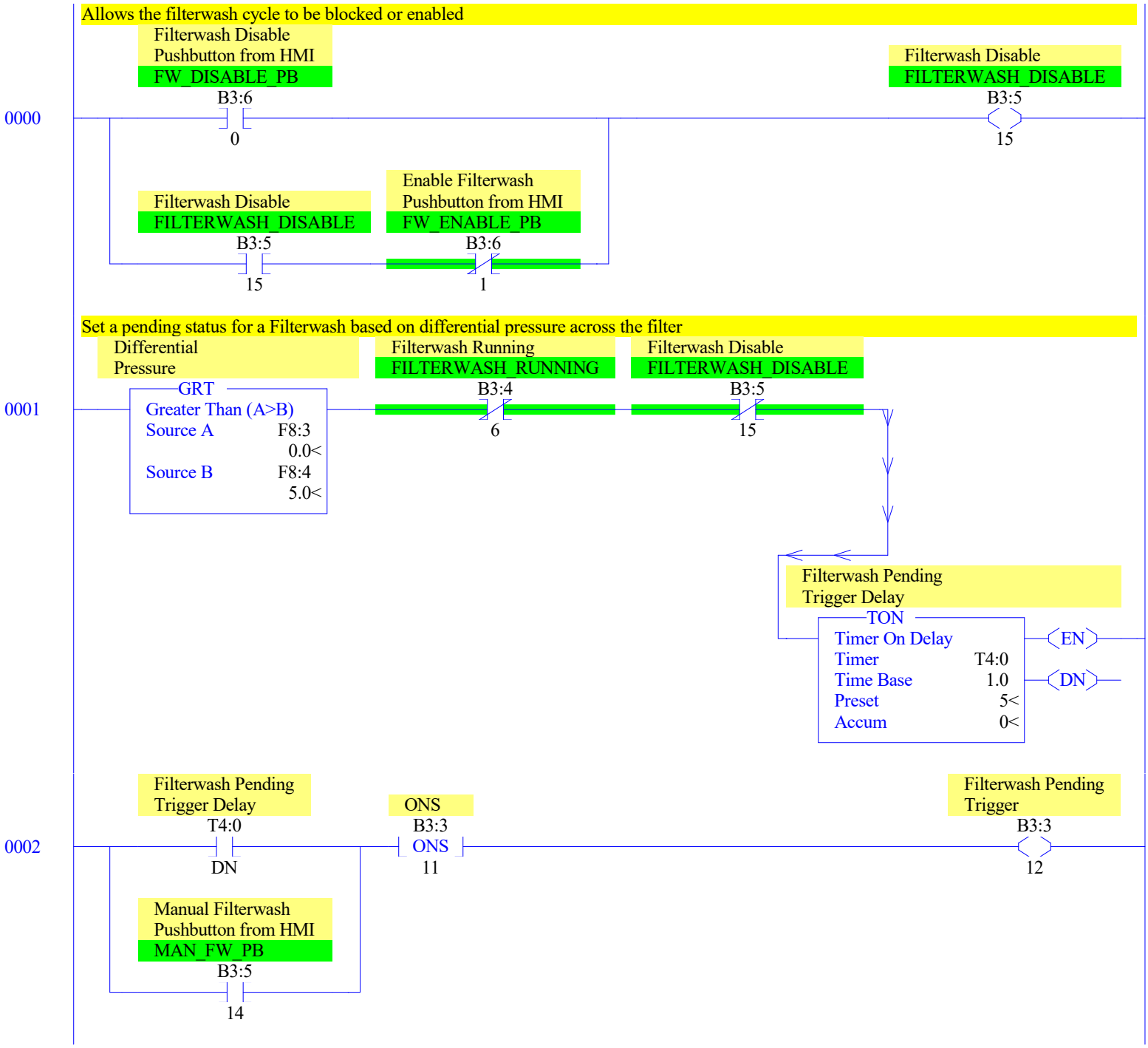

0001
Simulation Calculation Timer
T4:9
DN
Pump P-1 Bit
PUMP1
B3:0
7
Filterwash Running
FILTERWASH_RUNNING
B3:4
6
Level Transmitter
LT1 (0-100)% In
ADD
Add
Source A N10:2 0<
Source B 80 80<
Dest N10:2 0<
Filter Resistance
ADD
Add
Source A F8:10 0.0<
Source B 6.0 6.0<
Dest F8:10 0.0<
Pump P-1 Bit
PUMP1
B3:0
7
Filterwash Running
FILTERWASH_RUNNING
B3:4
6
Level Transmitter
LT1 (0-100)% In
SUB
Subtract
Source A N10:2 0<
Source B 12 12<
Dest N10:2 0<
Filter Resistance
SUB
Subtract
Source A F8:10 0.0<
Source B 22.0 22.0<
Dest F8:10 0.0<

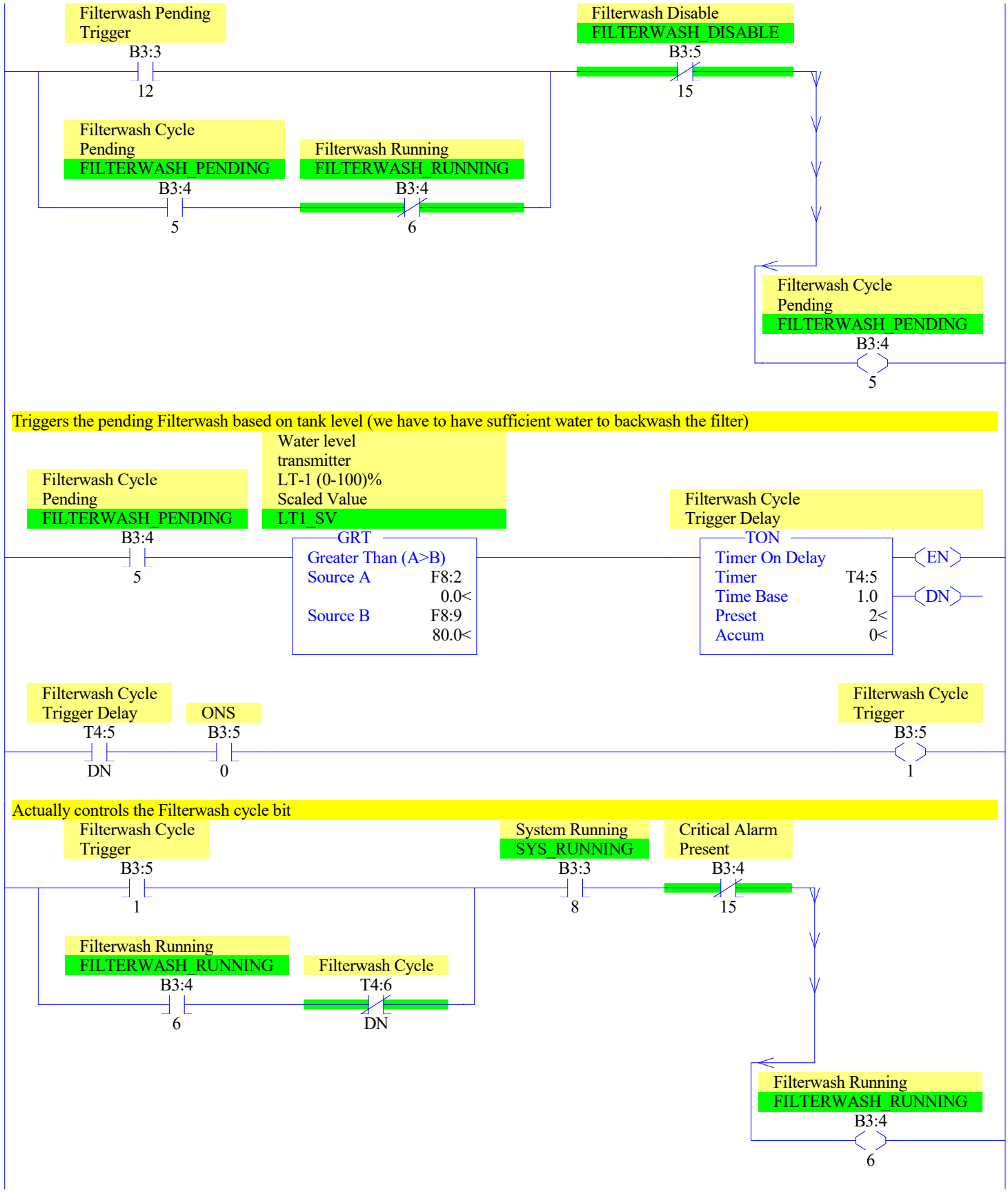

System Running
SYS_RUNNING
B3:3
8
Level Transmitter
LT1 (0-100)% In
SUB
Subtract
Source A N10:2
0<
Source B 17
17<
Dest N10:2
0<
Level Transmitter
LT1 (0-100)% In
LES
Less Than (A<B)
Source A N10:2
0<
Source B 0
0<
Level Transmitter
LT1 (0-100)% In
MOV
Move
Source 0
0<
Dest N10:2
0<
Level Transmitter
LT1 (0-100)% In
GRT
Greater Than (A>B)
Source A N10:2
0<
Source B 16383
16383<
Level Transmitter
LT1 (0-100)% In
MOV
Move
Source 16383
16383<
Dest N10:2
0<
Filter Resistance
LES
Less Than (A<B)
Source A F8:10
0.0<
Source B 400.0
400.0<
Filter Resistance
MOV
Move
Source 400.0
400.0<
Dest F8:10
0.0<

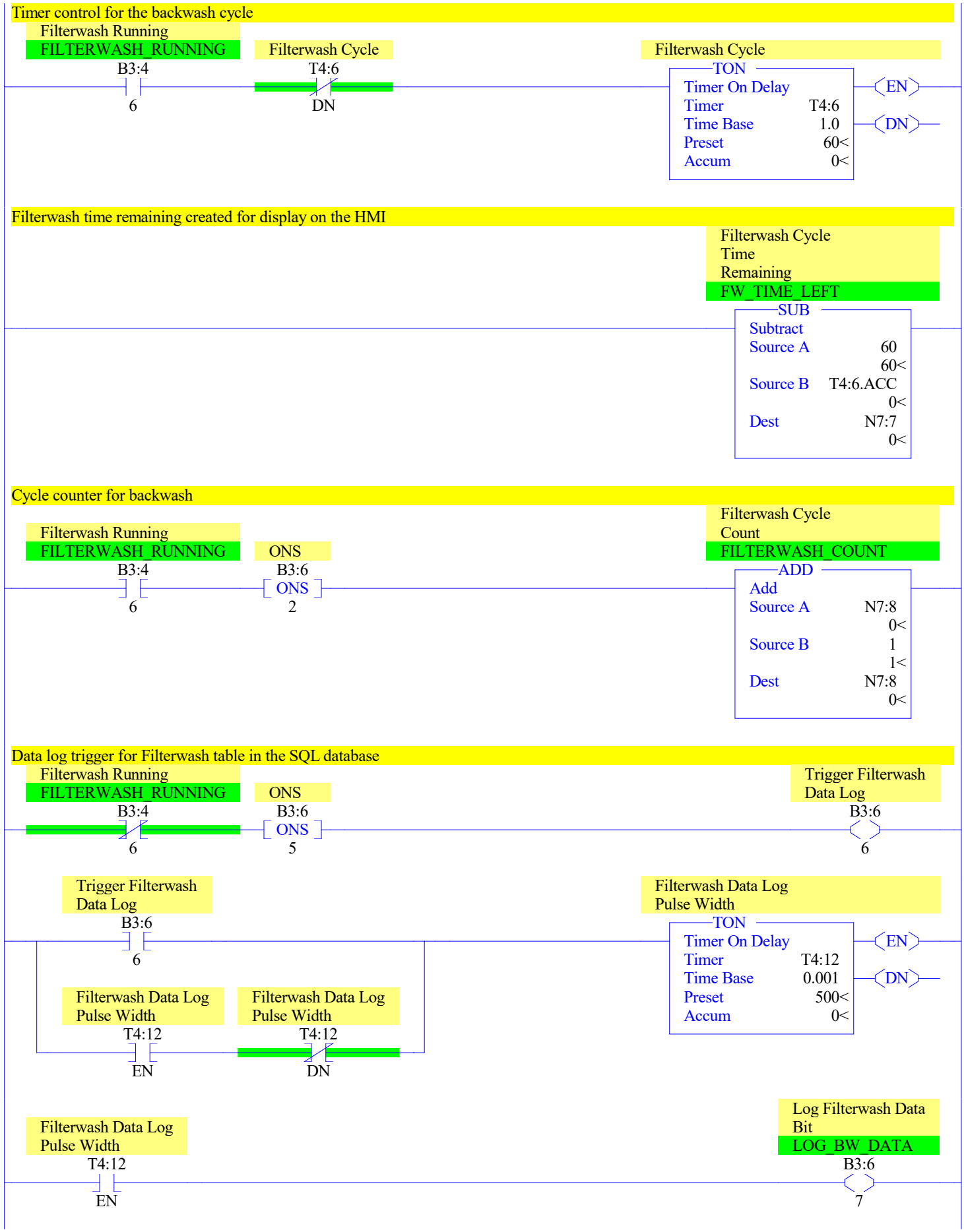

Pump P-1 Bit
PUMP1
B3:0
7
0002
Flow Switch Close
Delay
TON
Timer On Delay
Timer T4:10
Time Base 1.0
Preset 2<
Accum 0<
EN
DN
Filterwash Running
FILTERWASH_RUNNING
B3:4
6
Pressure Transmitter
PT2 (0-20) psi In
MOV
Move
Source 1000
1000<
Dest N10:1
0<
Pressure Transmitter
PT1 (0-20) psi In
ADD
Add
Source A N10:1
0<
Source B F8:10
0.0<
Dest N10:0
0<
Filterwash Running
FILTERWASH_RUNNING
B3:4
6
Pressure Transmitter
PT1 (0-20) psi In
MOV
Move
Source 700
700<
Dest N10:0
0<
Pressure Transmitter
PT2 (0-20) psi In
ADD
Add
Source A N10:0
0<
Source B F8:10
0.0<
Dest N10:1
0<

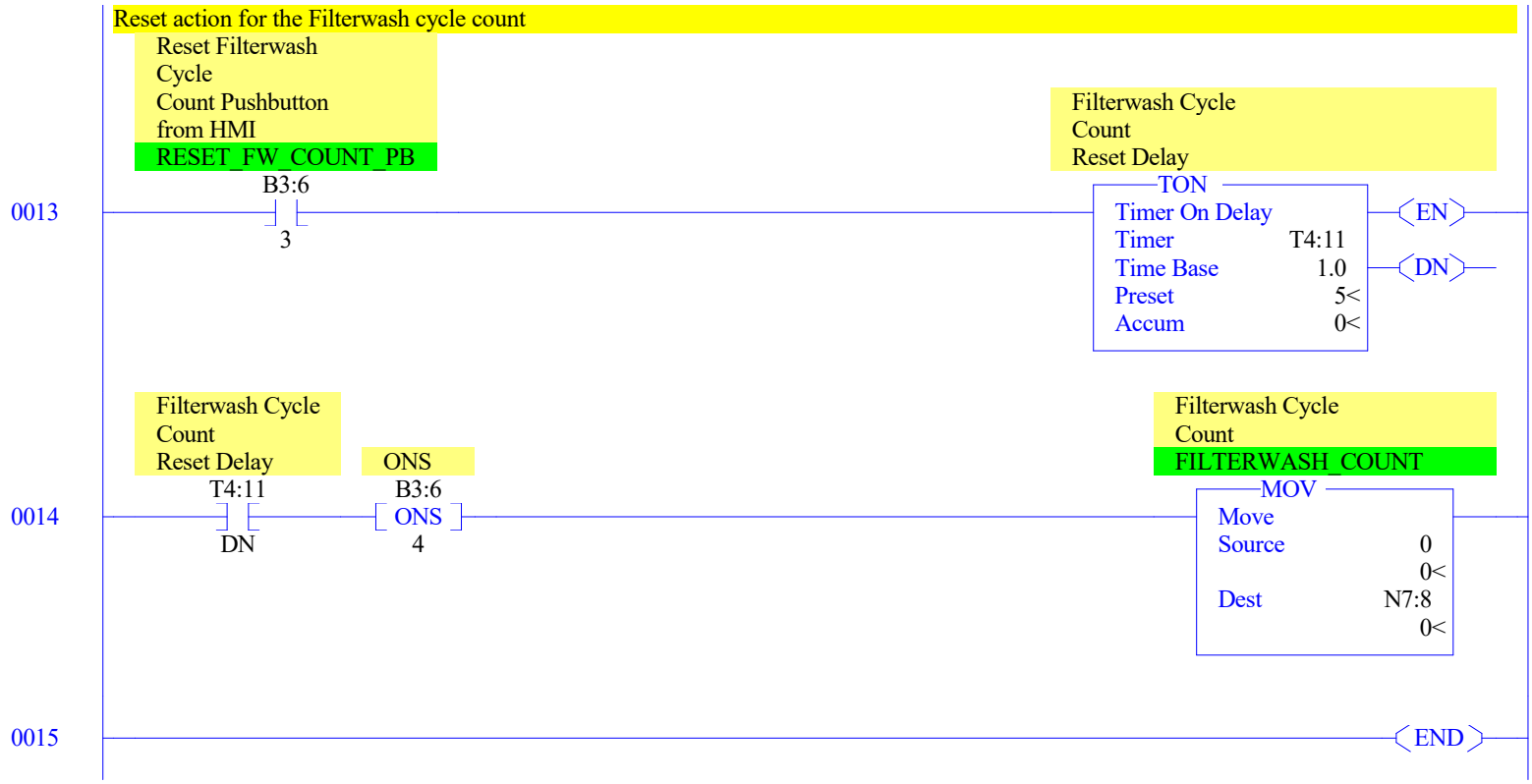

Pump P-1 Bit
PUMP1
B3:0
7
0003
Pressure Transmitter
PT2 (0-20) psi In
MOV
Move
Source 0
0<
Dest N10:1
0<
Pressure Transmitter
PT1 (0-20) psi In
MOV
Move
Source 0
0<
Dest N10:0
0<
Flow Alarm
Pushbutton
FLOW_ALARM_PB
B3:5
6
0004
Flow Alarm Pending
B3:5
12
Flow Alarm Pending
B3:5
12
Low Flow Alarm Bit
B3:4
9
Flow Switch Close
Delay
T4:10
DN
0005
Flow Alarm Pending
B3:5
12
Flow Switch FS1
B9:0
0
0006
END

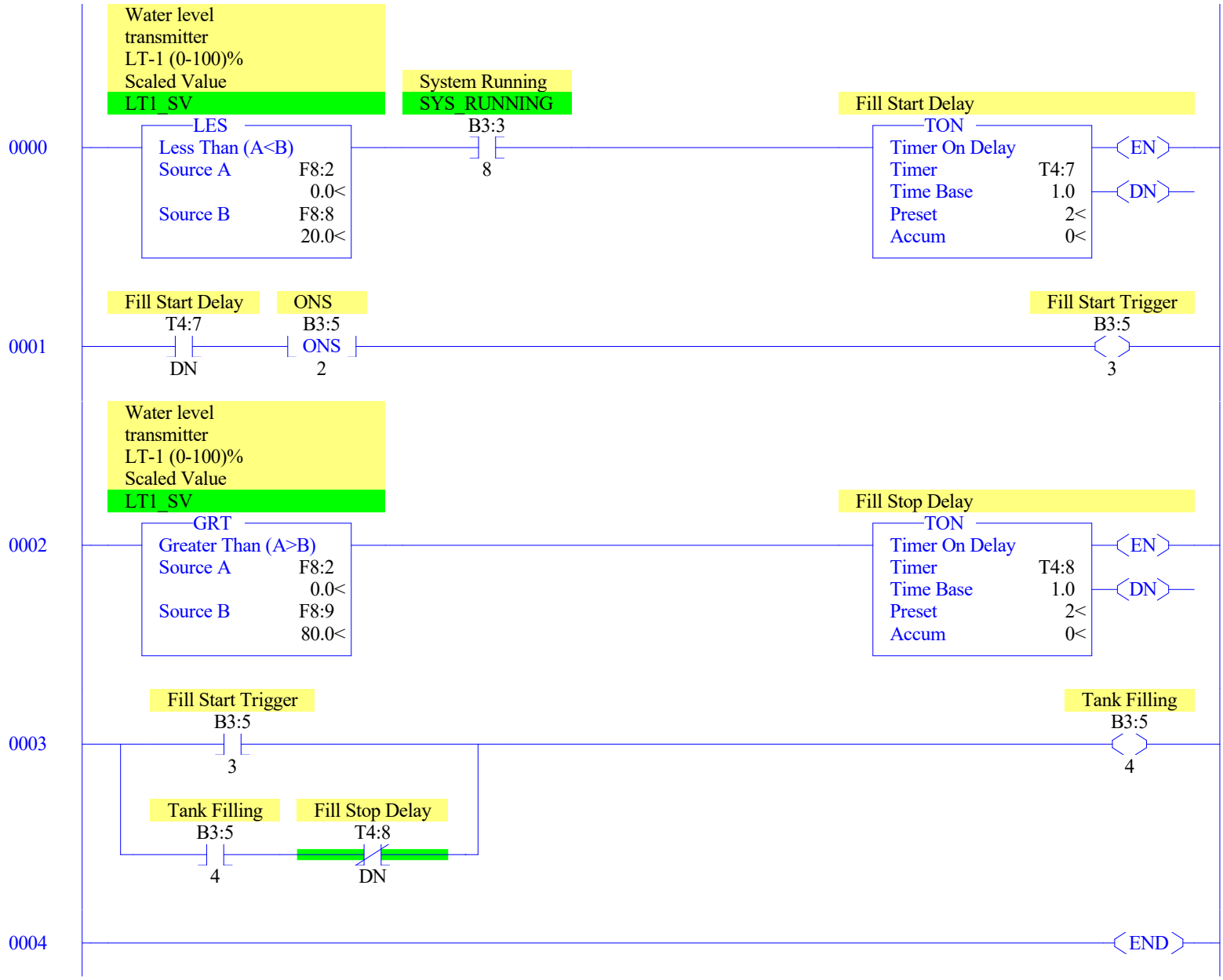

This ladder logic controls the system mode (RUN / STOP)
0000
System STOP Pushbutton
SYS_STOP_PB
B3:3
2
ONS
B3:3
ONS
4
System RUN Interrupt
B3:3
7
First Pass
S:1
15
0001
System START Pushbutton
SYS_START_PB
B3:3
3
ONS
B3:3
ONS
5
System RUN Trigger
B3:3
6
0002
System RUN Trigger
B3:3
6
All HOAs in AUTO
B3:5
5
Critical Alarm Present
B3:4
15
System Running
SYS_RUNNING
B3:3
8
System Running
SYS_RUNNING
B3:3
8
System RUN Interrupt
B3:3
7
0003
END

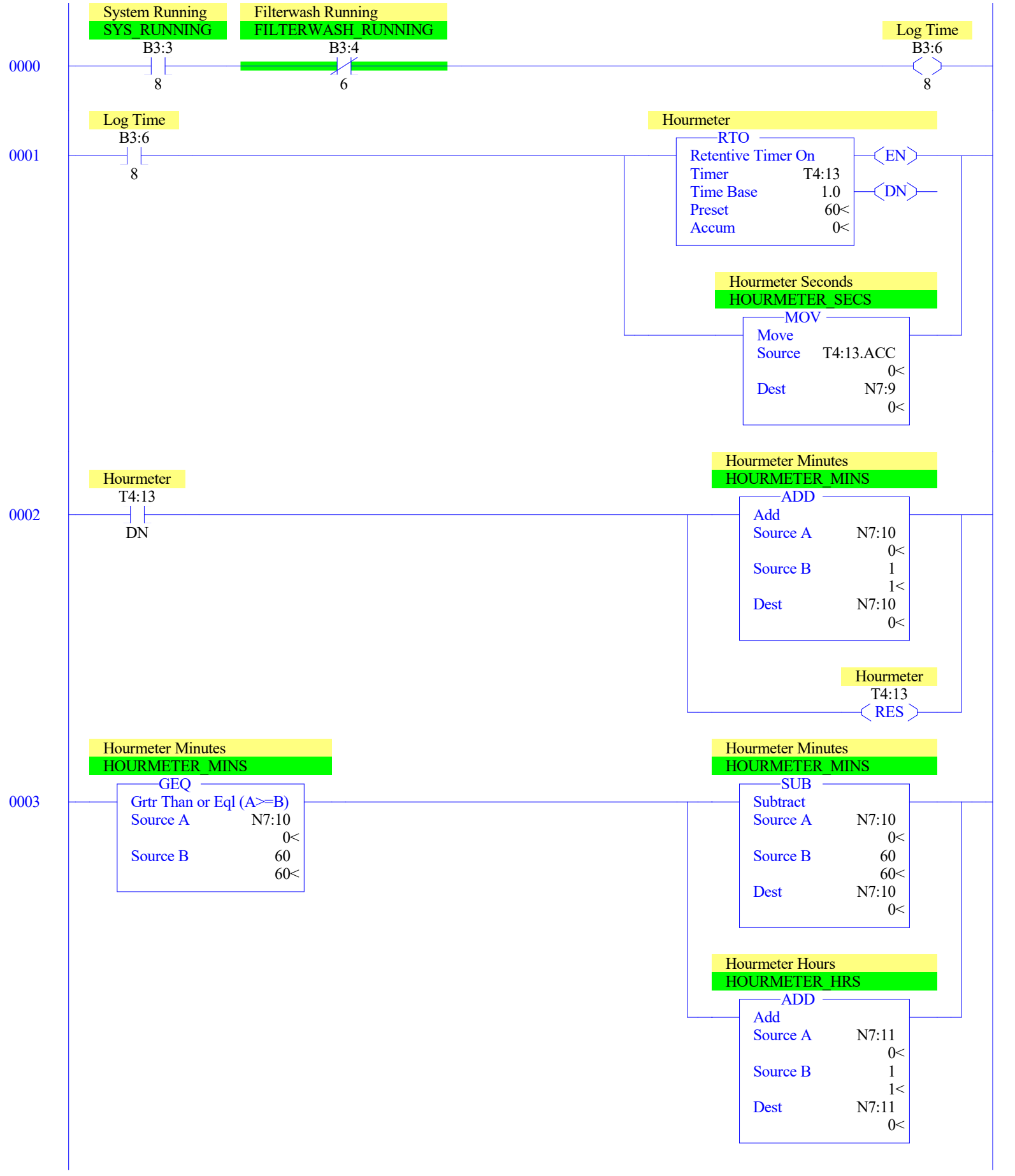

Allows the filterwash cycle to be blocked or enabled
Filterwash Disable Pushbutton from HMI
FW_DISABLE_PB
B3:6
0
Filterwash Disable
FILTERWASH_DISABLE
B3:5
15
0000
Filterwash Disable
FILTERWASH_DISABLE
B3:5
15
Enable Filterwash Pushbutton from HMI
FW_ENABLE_PB
B3:6
1
Set a pending status for a Filterwash based on differential pressure across the filter
Differential Pressure
GRT
Greater Than (A>B)
Source A F8:3 0.0<
Source B F8:4 5.0<
Filterwash Running
FILTERWASH_RUNNING
B3:4
6
Filterwash Disable
FILTERWASH_DISABLE
B3:5
15
0001
Filterwash Pending Trigger Delay
TON
Timer On Delay
Timer T4:0
Time Base 1.0
Preset 5<
Accum 0<
EN
DN
Filterwash Pending Trigger Delay
T4:0
DN
ONS
B3:3
ONS
11
Filterwash Pending Trigger
B3:3
12
0002
Manual Filterwash Pushbutton from HMI
MAN_FW_PB
B3:5
14

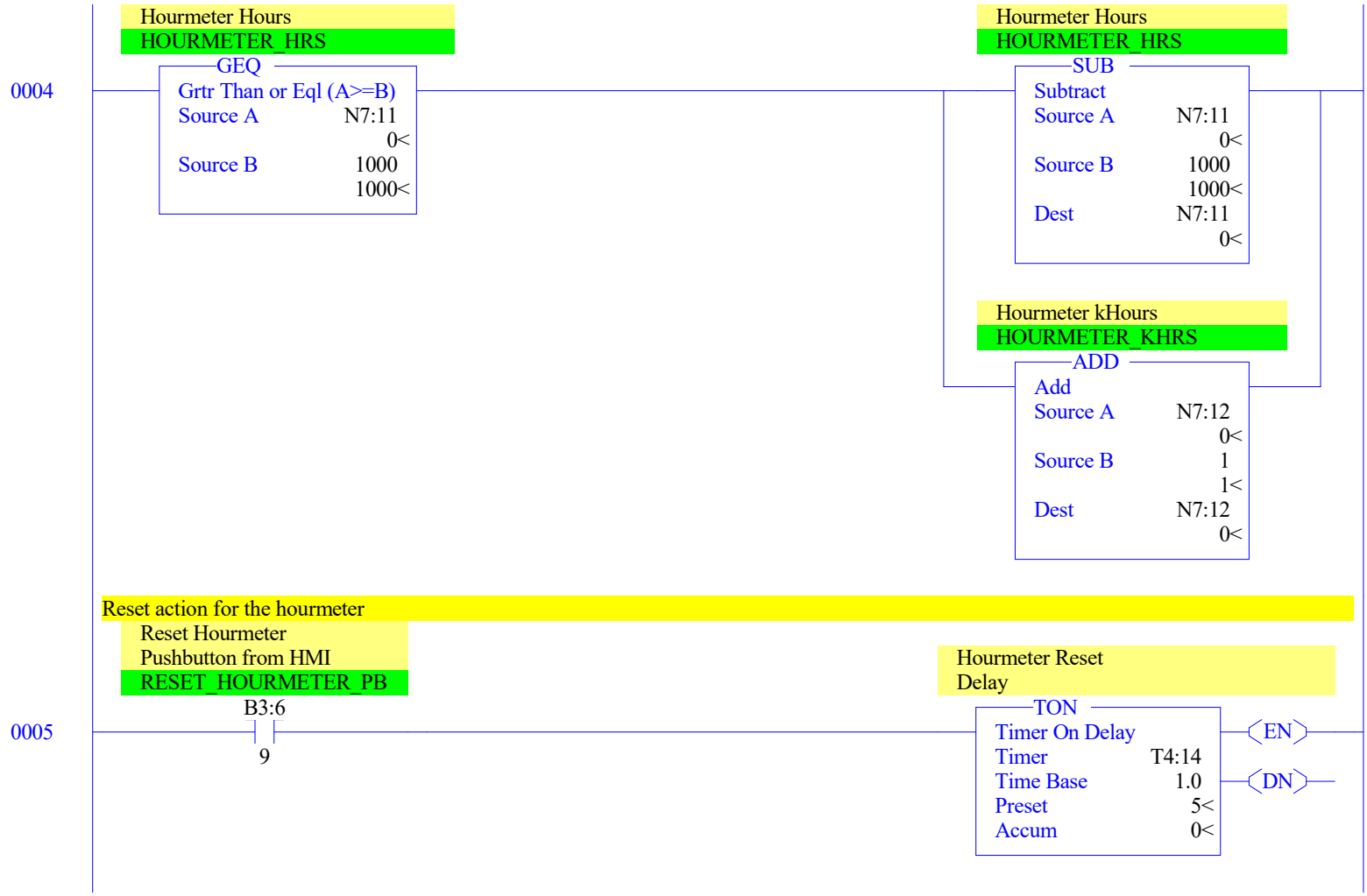

0003
Filterwash Pending Trigger
B3:3
12
Filterwash Disable
FILTERWASH_DISABLE
B3:5
15
Filterwash Cycle Pending
FILTERWASH_PENDING
B3:4
5
Filterwash Running
FILTERWASH_RUNNING
B3:4
6
Filterwash Cycle Pending
FILTERWASH_PENDING
B3:4
5
Triggers the pending Filterwash based on tank level (we have to have sufficient water to backwash the filter)
0004
Filterwash Cycle Pending
FILTERWASH_PENDING
B3:4
5
Water level transmitter
LT-1 (0-100)%
Scaled Value
LT1_SV
GRT
Greater Than (A>B)
Source A F8:2 0.0<
Source B F8:9 80.0<
Filterwash Cycle Trigger Delay
TON
Timer On Delay
Timer T4:5
Time Base 1.0
Preset 2<
Accum 0<
EN
DN
0005
Filterwash Cycle Trigger Delay
T4:5
DN
ONS
B3:5
0
Filterwash Cycle Trigger
B3:5
1
Actually controls the Filterwash cycle bit
0006
Filterwash Cycle Trigger
B3:5
1
System Running
SYS_RUNNING
B3:3
8
Critical Alarm Present
B3:4
15
Filterwash Running
FILTERWASH_RUNNING
B3:4
6
Filterwash Cycle
T4:6
DN
Filterwash Running
FILTERWASH_RUNNING
B3:4
6

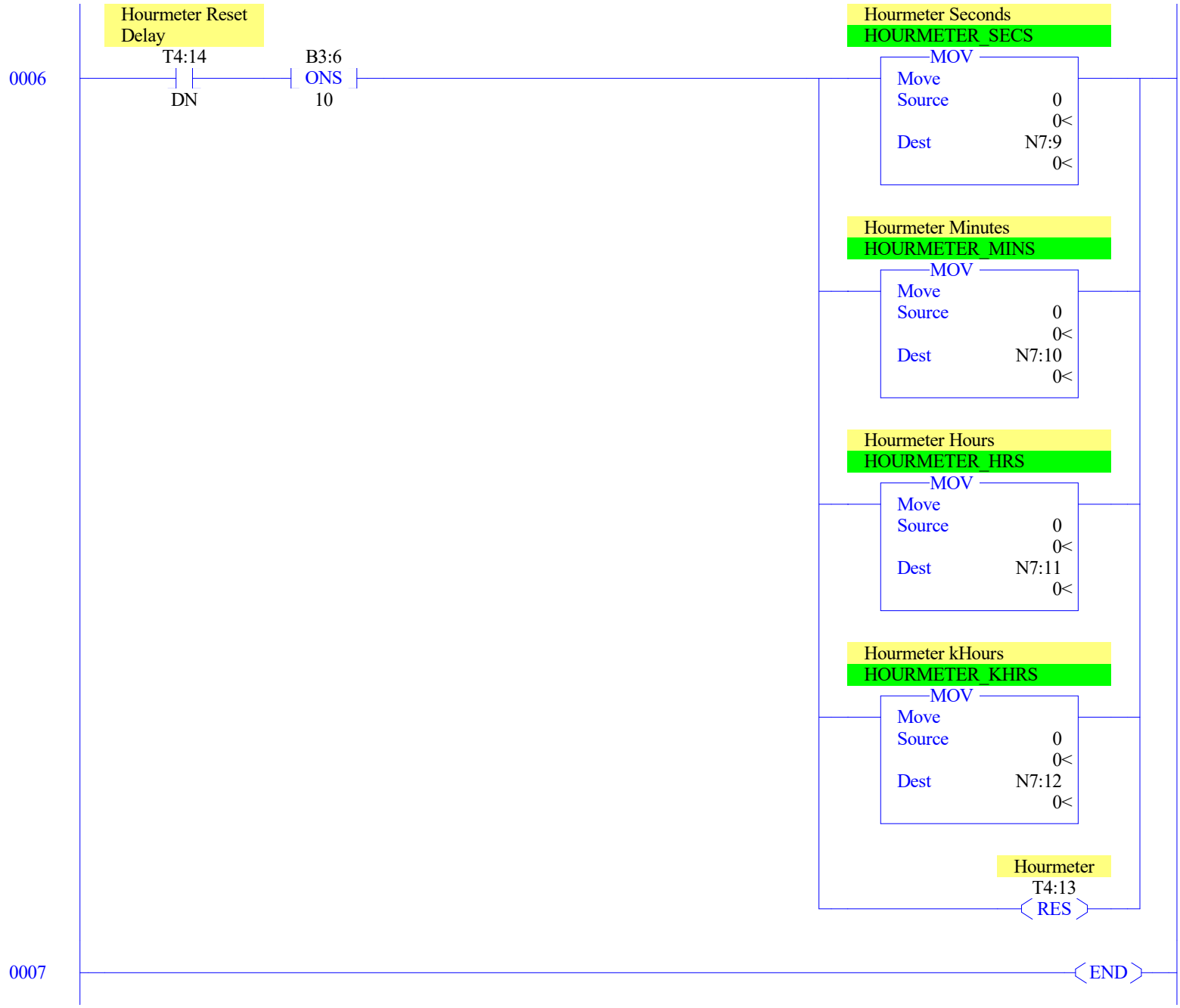

Timer control for the backwash cycle
Filterwash Running
FILTERWASH_RUNNING
B3:4
6
Filterwash Cycle
T4:6
DN
0007
Filterwash Cycle
TON
Timer On Delay
Timer T4:6
Time Base 1.0
Preset 60<
Accum 0<
EN
DN
Filterwash time remaining created for display on the HMI
Filterwash Cycle Time Remaining
FW_TIME_LEFT
0008
SUB
Subtract
Source A 60
60<
Source B T4:6.ACC
0<
Dest N7:7
0<
Cycle counter for backwash
Filterwash Running
FILTERWASH_RUNNING
B3:4
6
ONS
B3:6
ONS
2
0009
Filterwash Cycle Count
FILTERWASH_COUNT
ADD
Add
Source A N7:8
0<
Source B 1
1<
Dest N7:8
0<
Data log trigger for Filterwash table in the SQL database
Filterwash Running
FILTERWASH_RUNNING
B3:4
6
ONS
B3:6
ONS
5
0010
Trigger Filterwash Data Log
B3:6
6
Trigger Filterwash Data Log
B3:6
6
0011
Filterwash Data Log Pulse Width
TON
Timer On Delay
Timer T4:12
Time Base 0.001
Preset 500<
Accum 0<
EN
DN
Filterwash Data Log Pulse Width
T4:12
EN
Filterwash Data Log Pulse Width
T4:12
DN
Filterwash Data Log Pulse Width
T4:12
EN
0012
Log Filterwash Data Bit
LOG_BW_DATA
B3:6
7

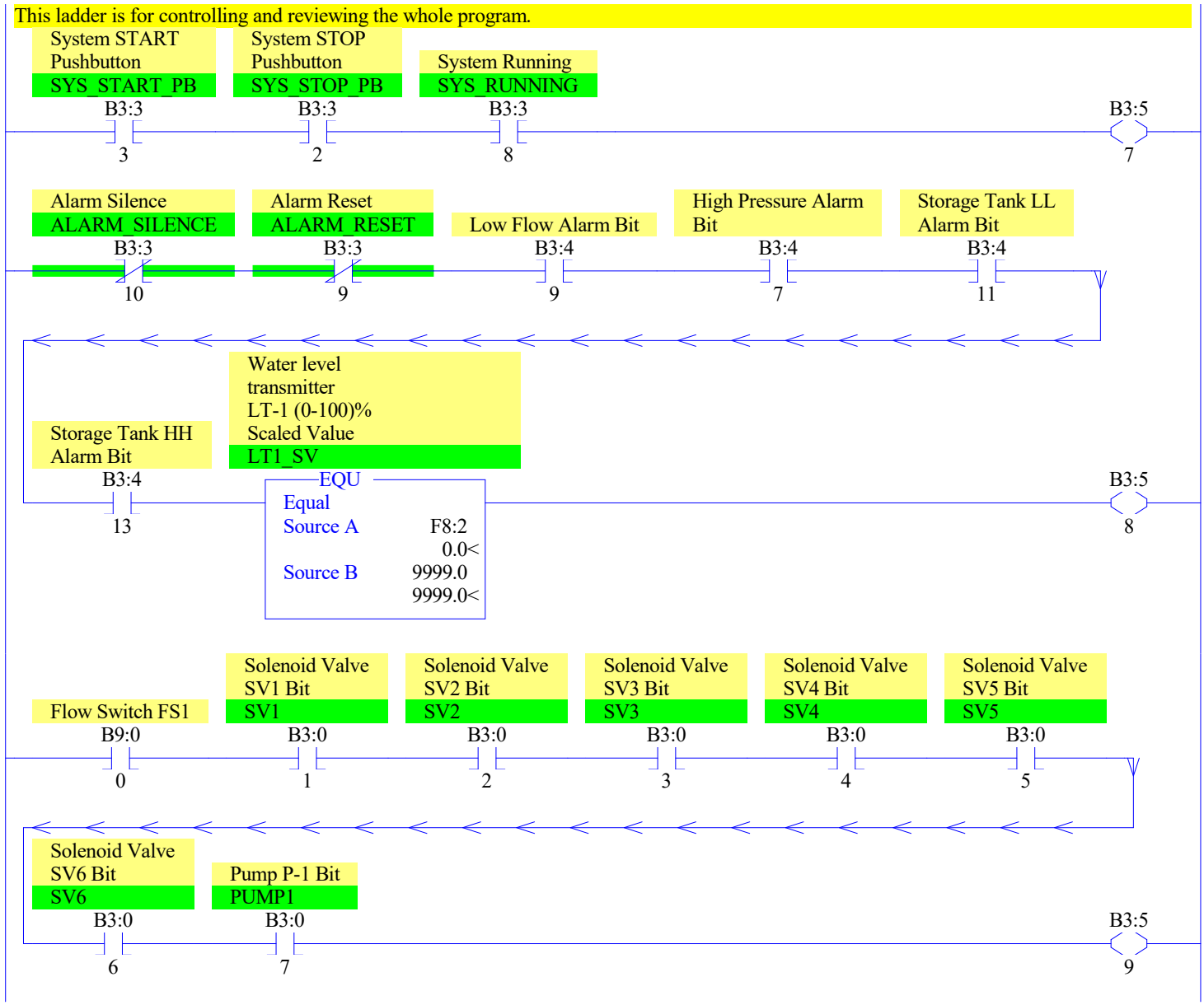

Reset action for the Filterwash cycle count
Reset Filterwash Cycle Count Pushbutton from HMI
RESET_FW_COUNT_PB
B3:6
3
Filterwash Cycle Count Reset Delay
TON
Timer On Delay
Timer T4:11
Time Base 1.0
Preset 5<
Accum 0<
EN
DN
0013
Filterwash Cycle Count Reset Delay
T4:11
DN
ONS
B3:6
ONS
4
Filterwash Cycle Count
FILTERWASH_COUNT
MOV
Move
Source 0
0<
Dest N7:8
0<
0014
0015
END

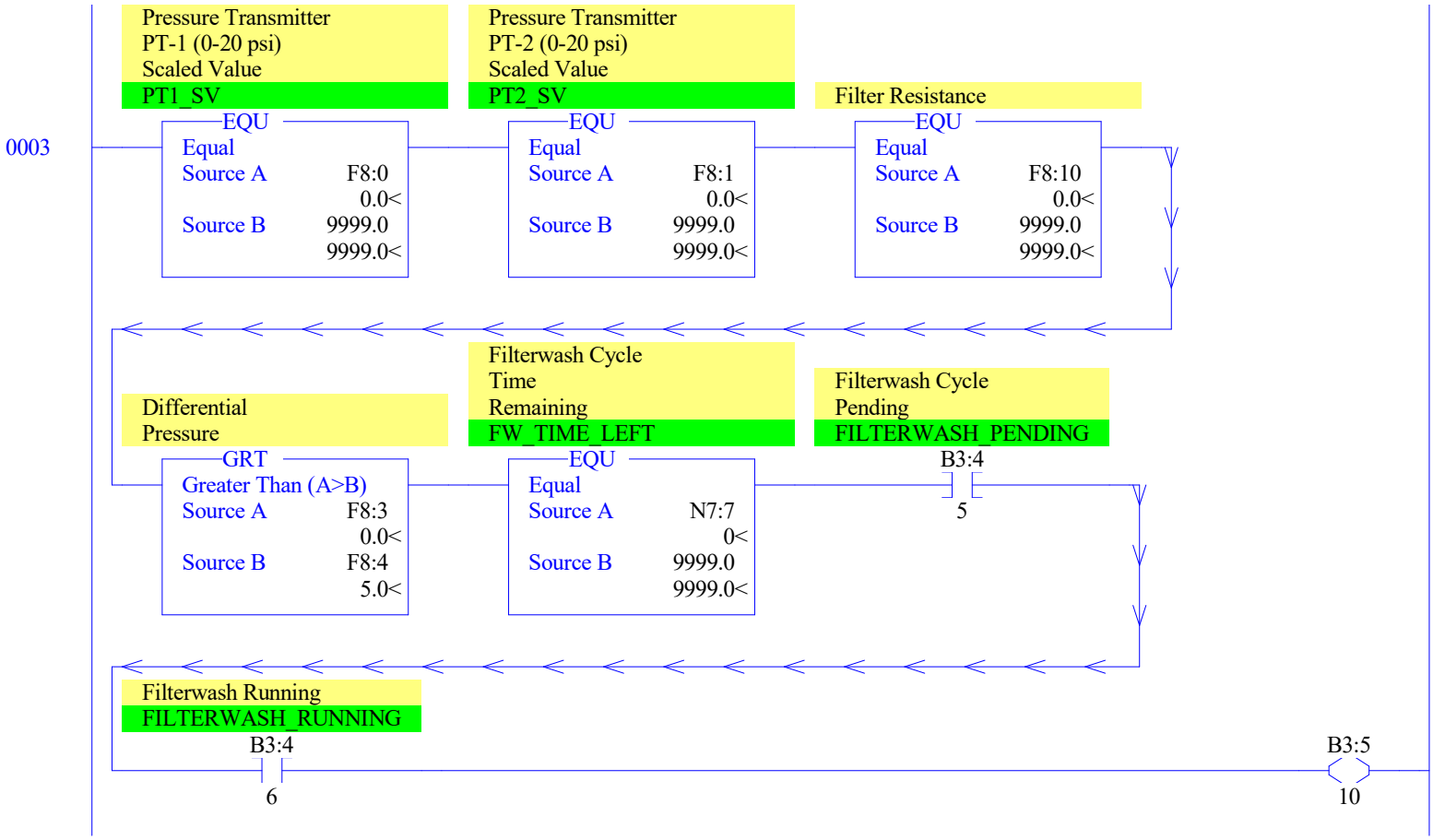

Water level transmitter LT-1 (0-100)% Scaled Value
LT1_SV
LES
Less Than (A<B)
Source A F8:2 0.0<
Source B F8:8 20.0<
System Running
SYS_RUNNING
B3:3
8
Fill Start Delay
TON
Timer On Delay
Timer T4:7
Time Base 1.0
Preset 2<
Accum 0<
EN
DN
0000
Fill Start Delay
T4:7
DN
ONS
B3:5
ONS
2
Fill Start Trigger
B3:5
3
0001
Water level transmitter LT-1 (0-100)% Scaled Value
LT1_SV
GRT
Greater Than (A>B)
Source A F8:2 0.0<
Source B F8:9 80.0<
Fill Stop Delay
TON
Timer On Delay
Timer T4:8
Time Base 1.0
Preset 2<
Accum 0<
EN
DN
0002
Fill Start Trigger
B3:5
3
Tank Filling
B3:5
4
Tank Filling
B3:5
4
Fill Stop Delay
T4:8
DN
0003
0004
END

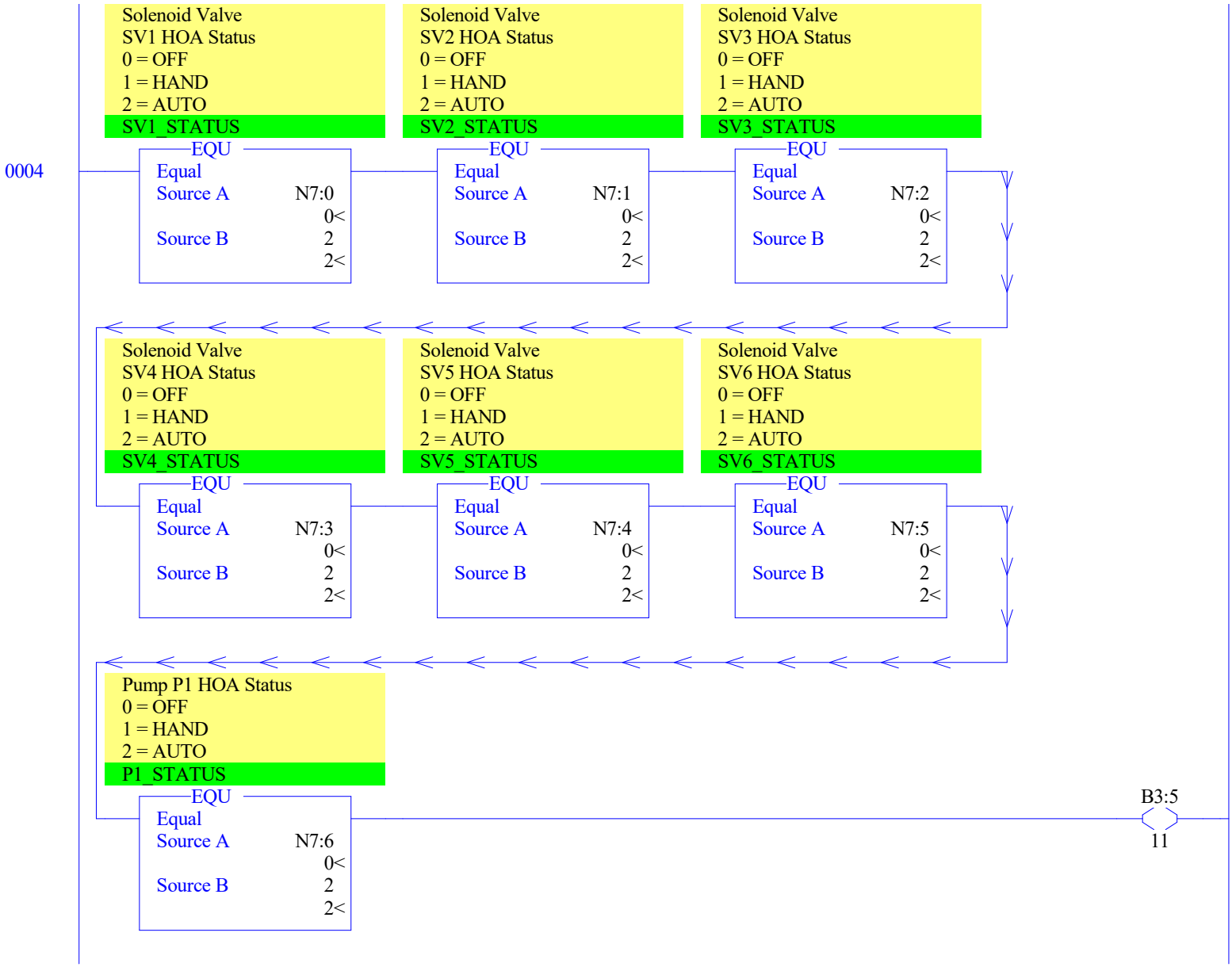

System Running
SYS_RUNNING
B3:3
8
Filterwash Running
FILTERWASH_RUNNING
B3:4
6
Log Time
B3:6
8
0000
Log Time
B3:6
8
0001
Hourmeter
RTO
Retentive Timer On
Timer T4:13
Time Base 1.0
Preset 60<
Accum 0<
EN
DN
Hourmeter Seconds
HOURMETER_SECS
MOV
Move
Source T4:13.ACC
0<
Dest N7:9
0<
Hourmeter
T4:13
DN
0002
Hourmeter Minutes
HOURMETER_MINS
ADD
Add
Source A N7:10
0<
Source B 1
1<
Dest N7:10
0<
Hourmeter
T4:13
RES
Hourmeter Minutes
HOURMETER_MINS
GEQ
Grtr Than or Eql (A>=B)
Source A N7:10
0<
Source B 60
60<
0003
Hourmeter Minutes
HOURMETER_MINS
SUB
Subtract
Source A N7:10
0<
Source B 60
60<
Dest N7:10
0<
Hourmeter Hours
HOURMETER_HRS
ADD
Add
Source A N7:11
0<
Source B 1
1<
Dest N7:11
0<


Hourmeter Hours
HOURMETER_HRS
0004
GEQ
Grtr Than or Eql (A>=B)
Source A N7:11
0<
Source B 1000
1000<
Hourmeter Hours
HOURMETER_HRS
SUB
Subtract
Source A N7:11
0<
Source B 1000
1000<
Dest N7:11
0<
Hourmeter kHours
HOURMETER_KHRS
ADD
Add
Source A N7:12
0<
Source B 1
1<
Dest N7:12
0<
Reset action for the hourmeter
Reset Hourmeter
Pushbutton from HMI
RESET_HOURMETER_PB
B3:6
9
0005
Hourmeter Reset
Delay
TON
Timer On Delay
Timer T4:14
Time Base 1.0
Preset 5<
Accum 0<
EN
DN


Hourmeter Reset Delay
T4:14
DN
B3:6
ONS
10
0006
Hourmeter Seconds
HOURMETER_SECS
MOV
Move
Source
0
0<
Dest
N7:9
0<
Hourmeter Minutes
HOURMETER_MINS
MOV
Move
Source
0
0<
Dest
N7:10
0<
Hourmeter Hours
HOURMETER_HRS
MOV
Move
Source
0
0<
Dest
N7:11
0<
Hourmeter kHours
HOURMETER_KHRS
MOV
Move
Source
0
0<
Dest
N7:12
0<
Hourmeter
T4:13
RES
0007
END


This ladder is for controlling and reviewing the whole program.
System START Pushbutton
SYS_START_PB
B3:3
3
System STOP Pushbutton
SYS_STOP_PB
B3:3
2
System Running
SYS_RUNNING
B3:3
8
B3:5
7
0000
Alarm Silence
ALARM_SILENCE
B3:3
10
Alarm Reset
ALARM_RESET
B3:3
9
Low Flow Alarm Bit
B3:4
9
High Pressure Alarm Bit
B3:4
7
Storage Tank LL Alarm Bit
B3:4
11
0001
Water level transmitter LT-1 (0-100)% Scaled Value
LT1_SV
Storage Tank HH Alarm Bit
B3:4
13
EQU
Equal
Source A
F8:2
0.0<
Source B
9999.0
9999.0<
B3:5
8
Flow Switch FS1
B9:0
0
Solenoid Valve SV1 Bit
SV1
B3:0
1
Solenoid Valve SV2 Bit
SV2
B3:0
2
Solenoid Valve SV3 Bit
SV3
B3:0
3
Solenoid Valve SV4 Bit
SV4
B3:0
4
Solenoid Valve SV5 Bit
SV5
B3:0
5
0002
Solenoid Valve SV6 Bit
SV6
B3:0
6
Pump P-1 Bit
PUMP1
B3:0
7
B3:5
9


0003
Pressure Transmitter
PT-1 (0-20 psi)
Scaled Value
PT1_SV
EQU
Equal
Source A F8:0 0.0<
Source B 9999.0 9999.0<
Pressure Transmitter
PT-2 (0-20 psi)
Scaled Value
PT2_SV
EQU
Equal
Source A F8:1 0.0<
Source B 9999.0 9999.0<
Filter Resistance
EQU
Equal
Source A F8:10 0.0<
Source B 9999.0 9999.0<
Differential
Pressure
GRT
Greater Than (A>B)
Source A F8:3 0.0<
Source B F8:4 5.0<
Filterwash Cycle
Time
Remaining
FW_TIME_LEFT
EQU
Equal
Source A N7:7 0<
Source B 9999.0 9999.0<
Filterwash Cycle
Pending
FILTERWASH_PENDING
B3:4
5
Filterwash Running
FILTERWASH_RUNNING
B3:4
6
B3:5
10


0004
Solenoid Valve
SV1 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV1_STATUS
EQU
Equal
Source A N7:0
0<
Source B 2
2<
Solenoid Valve
SV2 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV2_STATUS
EQU
Equal
Source A N7:1
0<
Source B 2
2<
Solenoid Valve
SV3 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV3_STATUS
EQU
Equal
Source A N7:2
0<
Source B 2
2<
Solenoid Valve
SV4 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV4_STATUS
EQU
Equal
Source A N7:3
0<
Source B 2
2<
Solenoid Valve
SV5 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV5_STATUS
EQU
Equal
Source A N7:4
0<
Source B 2
2<
Solenoid Valve
SV6 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV6_STATUS
EQU
Equal
Source A N7:5
0<
Source B 2
2<
Pump P1 HOA Status
0 = OFF
1 = HAND
2 = AUTO
P1_STATUS
EQU
Equal
Source A N7:6
0<
Source B 2
2<
B3:5
11

0005

Put All Devices Into AUTO

B3:5
13

Solenoid Valve
SV1 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV1_STATUS

MOV
Move
Source 2
2<
Dest N7:0
0<

Solenoid Valve
SV2 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV2_STATUS

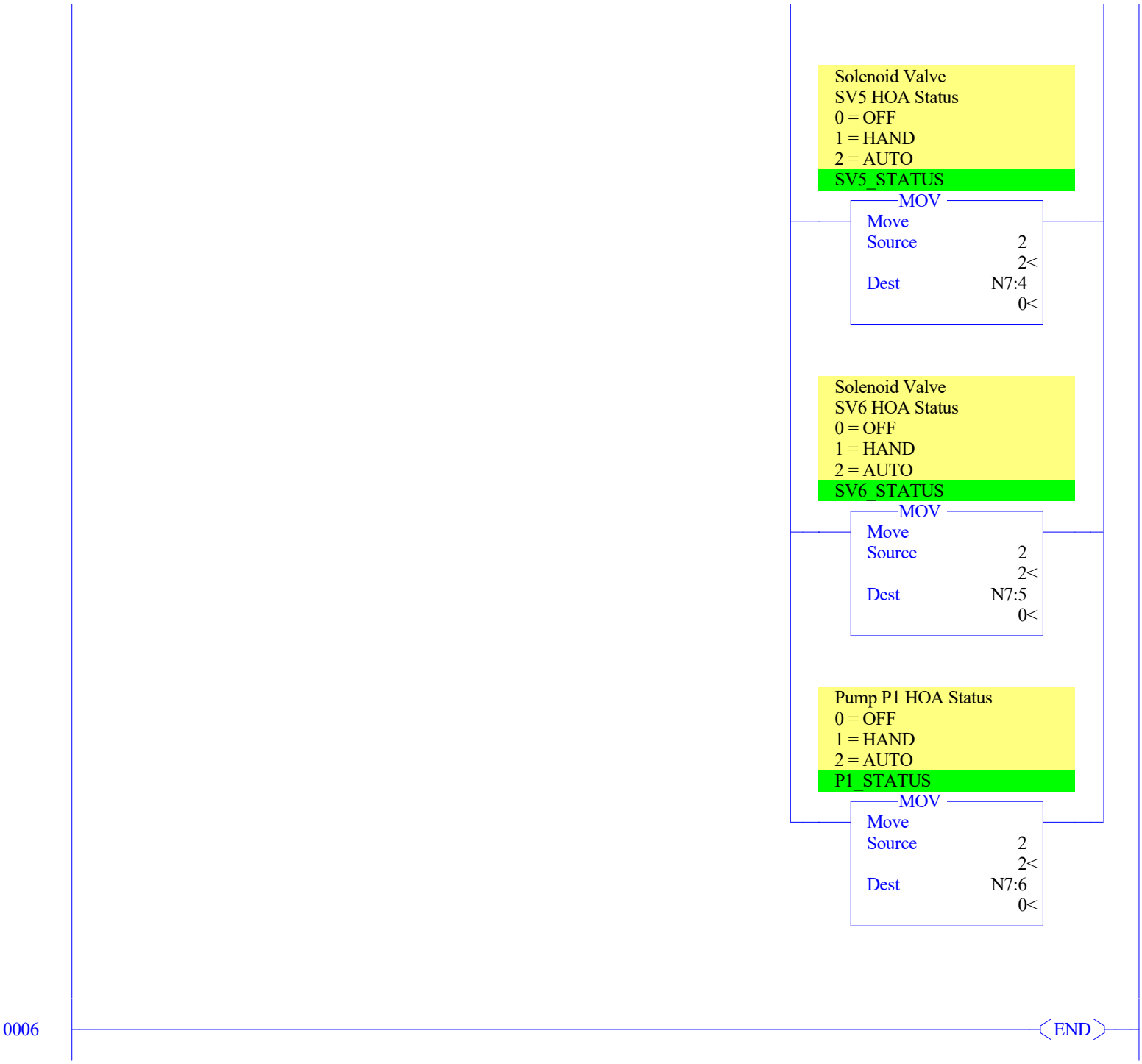
MOV
Move
Source 2
2<
Dest N7:1
0<

Solenoid Valve
SV3 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV3_STATUS

MOV
Move
Source 2
2<
Dest N7:2
0<

Solenoid Valve
SV4 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV4_STATUS

MOV
Move
Source 2
2<
Dest N7:3
0<


Solenoid Valve
SV5 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV5_STATUS
MOV
Move
Source
2
2<
Dest
N7:4
0<
Solenoid Valve
SV6 HOA Status
0 = OFF
1 = HAND
2 = AUTO
SV6_STATUS
MOV
Move
Source
2
2<
Dest
N7:5
0<
Pump P1 HOA Status
0 = OFF
1 = HAND
2 = AUTO
P1_STATUS
MOV
Move
Source
2
2<
Dest
N7:6
0<
0006
END

Data File O0 (bin) -- OUTPUT

Offset	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0		
O:0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Bul.1763	MicroLogix 1100 Series B
O:0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Bul.1763	MicroLogix 1100 Series B
O:0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Bul.1763	MicroLogix 1100 Series B
O:0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Bul.1763	MicroLogix 1100 Series B

Data File I1 (bin) -- INPUT

Offset	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0		
I:0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Bul.1763	MicroLogix 1100 Series B
I:0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Bul.1763	MicroLogix 1100 Series B
I:0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Bul.1763	MicroLogix 1100 Series B
I:0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Bul.1763	MicroLogix 1100 Series B
I:0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Bul.1763	MicroLogix 1100 Series B-Anal
I:0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Bul.1763	MicroLogix 1100 Series B-Anal

Main

Processor Mode S:1/0 - S:1/4 = Remote Program Mode
On Power up Go To Run (Mode Behavior) S:1/12 = 0
First Pass S:1/15 = No
Free Running Clock S:4 = 0000-0000-0000-0000

Proc

OS Catalog Number S:57 = 1100 User Program Type S:63 = 8001h
OS Series S:58 = A Compiler Revision Number S:64 =
OS FRS S:59 =
Processor Catalog Number S:60 =
Processor Series S:61 = A
Processor FRN S:62 =

Scan Times

Maximum (x10 ms) S:22 = 0
Watchdog (x10 ms) S:3 (high byte) = 10
Last 100 uSec Scan Time S:35 = 0
Scan Toggle Bit S:33/9 = 0

Math

Math Overflow Selected S:2/14 = 0 Math Register (lo word) S:13 = 0
Overflow Trap S:5/0 = 0 Math Register (high word) S:14-S:13 = 0
Carry S:0/0 = 0 Math Register (32 Bit) S:14-S:13 = 0
Overflow S:0/1 = 0
Zero Bit S:0/2 = 0
Sign Bit S:0/3 = 0

Chan 0

Processor Mode S:1/0- S:1/4 = Remote Program Mode
Node Address S:15 (low byte) = 0 Outgoing Msg Cmd Pending S:33/2 = 0
Baud Rate S:15 (high byte) = ?
Channel Mode S:33/3 = 0
Comms Active S:33/4 = 0
Incoming Cmd Pending S:33/0 = 0
Msg Reply Pending S:33/1 = 0

Debug

Suspend Code S:7 = 0
Suspend File S:8 = 0

Errors

Fault Override At Power Up S:1/8 = 0 Fault Routine S:29 = 0
Startup Protection Fault S:1/9 = 0 Major Error S:6 = 0h
Major Error Halt S:1/13 = 0
Overflow Trap S:5/0 = 0 Error Description:
Control Register Error S:5/2 = 0
Major Error Executing User Fault Rtn. S:5/3 = 0
Battery Low S:5/11 = 0
Input Filter Selection Modified S:5/13 = 0
ASCII String Manipulation error S:5/15 = 0

Protection

Deny Future Access S:1/14 = No
Data File Overwrite Protection Lost S:36/10 = False

Mem Module

Memory Module Loaded On Boot S:5/8 = 0
Password Mismatch S:5/9 = 0
Load Memory Module On Memory Error S:1/10 = 0
Load Memory Module Always S:1/11 = 0
On Power up Go To Run (Mode Behavior) S:1/12 = 0
Program Compare S:2/9 = 0

Protection

Deny Future Access S:1/14 = No
Data File Overwrite Protection Lost S:36/10 = False

Mem Module

Memory Module Loaded On Boot S:5/8 = 0
Password Mismatch S:5/9 = 0
Load Memory Module On Memory Error S:1/10 = 0
Load Memory Module Always S:1/11 = 0
On Power up Go To Run (Mode Behavior) S:1/12 = 0
Program Compare S:2/9 = 0
Data File Overwrite Protection Lost S:36/10 = 0

Forces

Forces Enabled S:1/5 = Yes
Forces Installed S:1/6 = No

Data File B3 (bin) -- BINARY

Offset	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	(Symbol) Description
B3:0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
B3:1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
B3:2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
B3:3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
B3:4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
B3:5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
B3:6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Data File T4 -- TIMER

Offset	EN	TT	DN	BASE	PRE	ACC	(Symbol) Description
T4:0	0	0	0	1.0 sec	5	0	Filterwash Pending Trigger Delay
T4:1	0	0	0	1.0 sec	5	0	(HP ALARM DELAY) High Pressure Alarm Delay
T4:2	0	0	0	1.0 sec	5	0	(LF_ALARM_DELAY) Low Flow Alarm Delay
T4:3	0	0	0	1.0 sec	5	0	Storage Tank LL Alarm Delay
T4:4	0	0	0	1.0 sec	5	0	Storage Tank HH Alarm Delay
T4:5	0	0	0	1.0 sec	2	0	Filterwash Cycle Trigger Delay
T4:6	0	0	0	1.0 sec	60	0	Filterwash Cycle
T4:7	0	0	0	1.0 sec	2	0	Fill Start Delay
T4:8	0	0	0	1.0 sec	2	0	Fill Stop Delay
T4:9	0	0	0	.001 sec	500	0	Simulation Calculation Timer
T4:10	0	0	0	1.0 sec	2	0	Flow Switch Close Delay
T4:11	0	0	0	1.0 sec	5	0	Filterwash Cycle Count Reset Delay
T4:12	0	0	0	.001 sec	500	0	Filterwash Data Log Pulse Width
T4:13	0	0	0	1.0 sec	60	0	Hourmeter
T4:14	0	0	0	1.0 sec	5	0	Hourmeter Reset Delay

Data File C5 -- COUNTER

Offset	CU	CD	DN	OV	UN	UA	PRE	ACC	(Symbol)	Description
C5:0	0	0	0	0	0	0	0	0		

Offset	EN	EU	DN	EM	ER	UL	IN	FD	LEN	POS	(Symbol)	Description
R6:0	0	0	0	0	0	0	0	0	0	0		

Data File N7 (dec) -- INTEGER

Offset	0	1	2	3	4	5	6	7	8	9
N7:0	0	0	0	0	0	0	0	0	0	0
N7:10	0	0	0							

Data File F8 -- FLOAT

Offset	0	1	2	3	4
F8:0	0	0	0	0	5
F8:5	15	10	90	20	80
F8:10	0	0			

Data File B9 (bin) -- DIGITAL IO

Offset	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	(Symbol) Description
B9:0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Data File N10 (dec) -- ANALOG IO

Offset	0	1	2	3	4	5	6	7	8	9
N10:0	0	0	0							