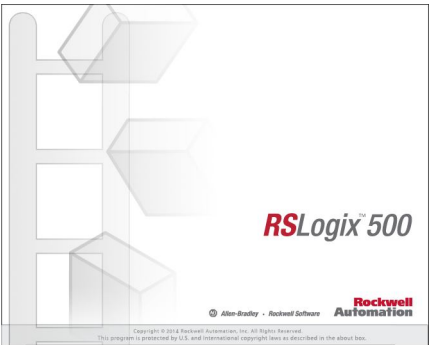


RSLogix 500 Project Report



Processor Information

Processor Type: 1747-L542B 5/04 CPU - 32K Mem. OS401

Processor Name: EXMP21_4

Total Memory Used: *

Total Memory Left: *

Program Files: 17

Data Files: 33

Program ID: 0

MSG Configuration

MSG - Rung #3:5 - N14:0(14 Elements)

Communication Command: 500CPU Read	Ignore if timed out(TO): No
Data Table Address: N12:10	Continuous Run (CO): No
Size in Elements: 1	
Channel: 0	
Message Timeout: 5	
Data Table Address: N12:20	
Local Node Addr (dec): 10	(octal): 12
Local/Remote: Local	

PID Configuration

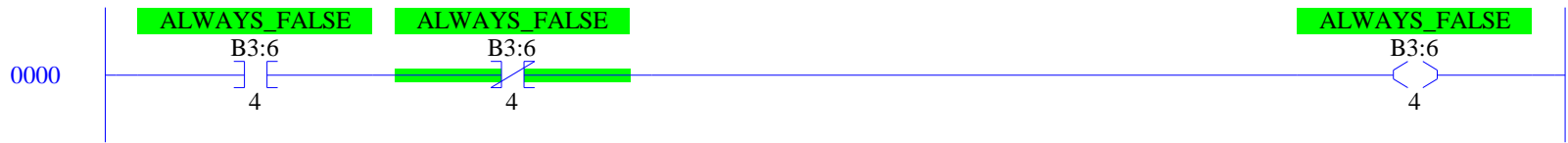
PID - Rung #6:0 - N50:25

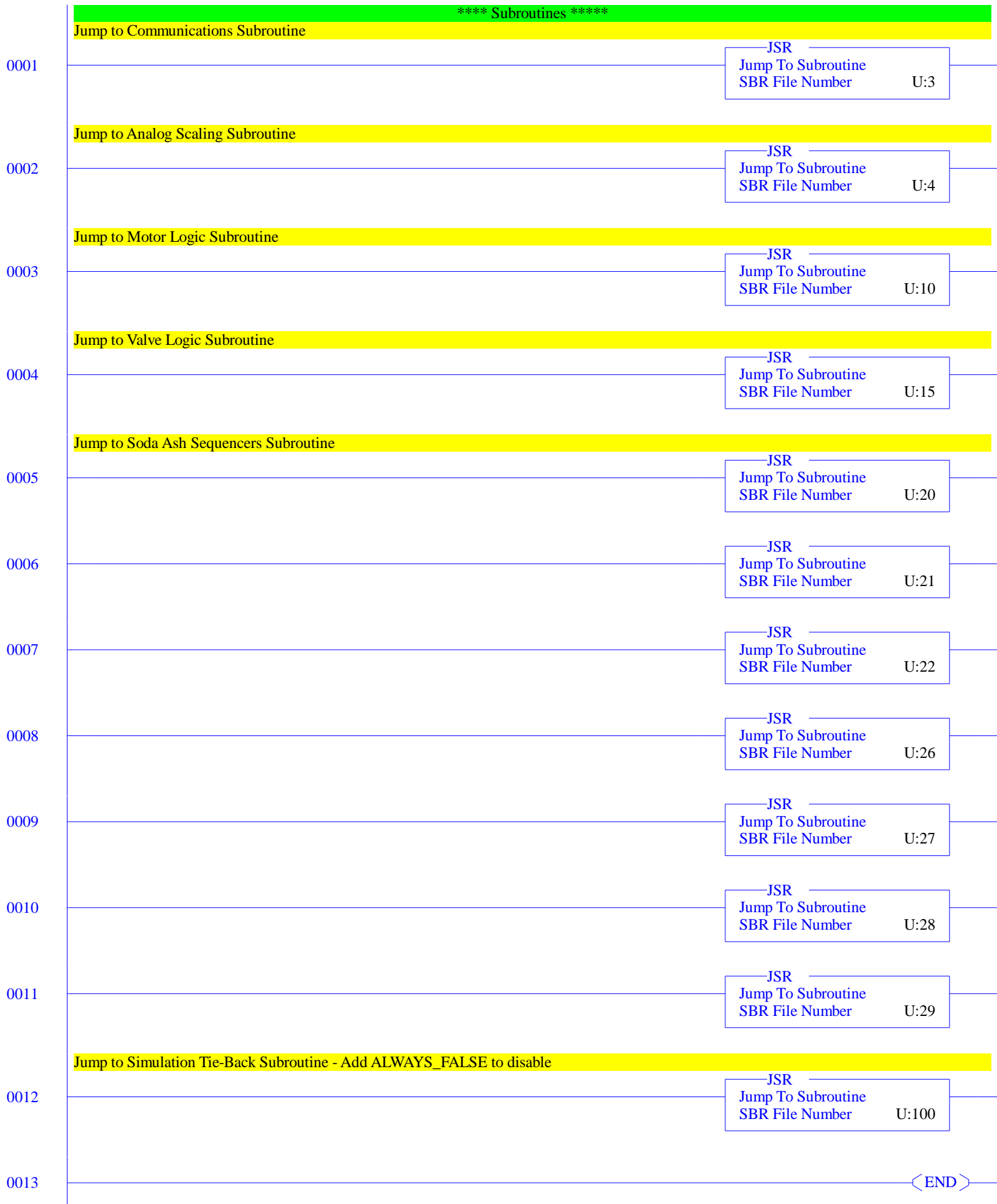
Controller Gain, Kc: 1.0	Setpoint: 15
Reset Term, Ti: 0.0	Maximum Setpoint Limit: 20
Rate Term, Td: 0.00	Minimum Setpoint Limit: 0
Loop Update Time: 1.00	Control Variable Percent (CV%): 0
Control Mode: E = SP - PV	Output Max CV(%): 100
PID Control: Auto	Output Min CV(%): 0
Time Mode: Timed	Derivative Action(DA): No
Output Limiting: Yes	Deadband: 0
Reset and Gain: No	

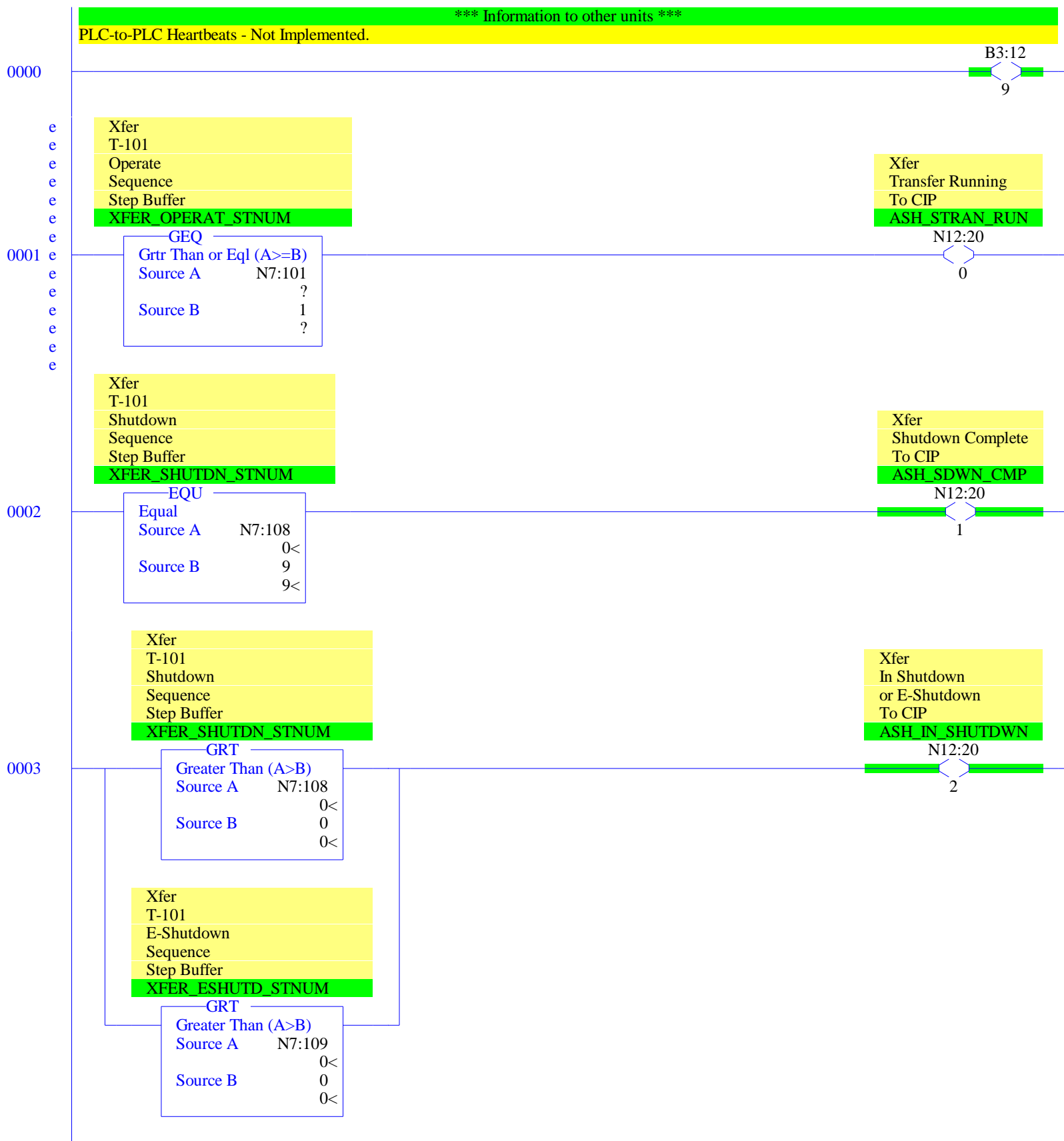
Program File List

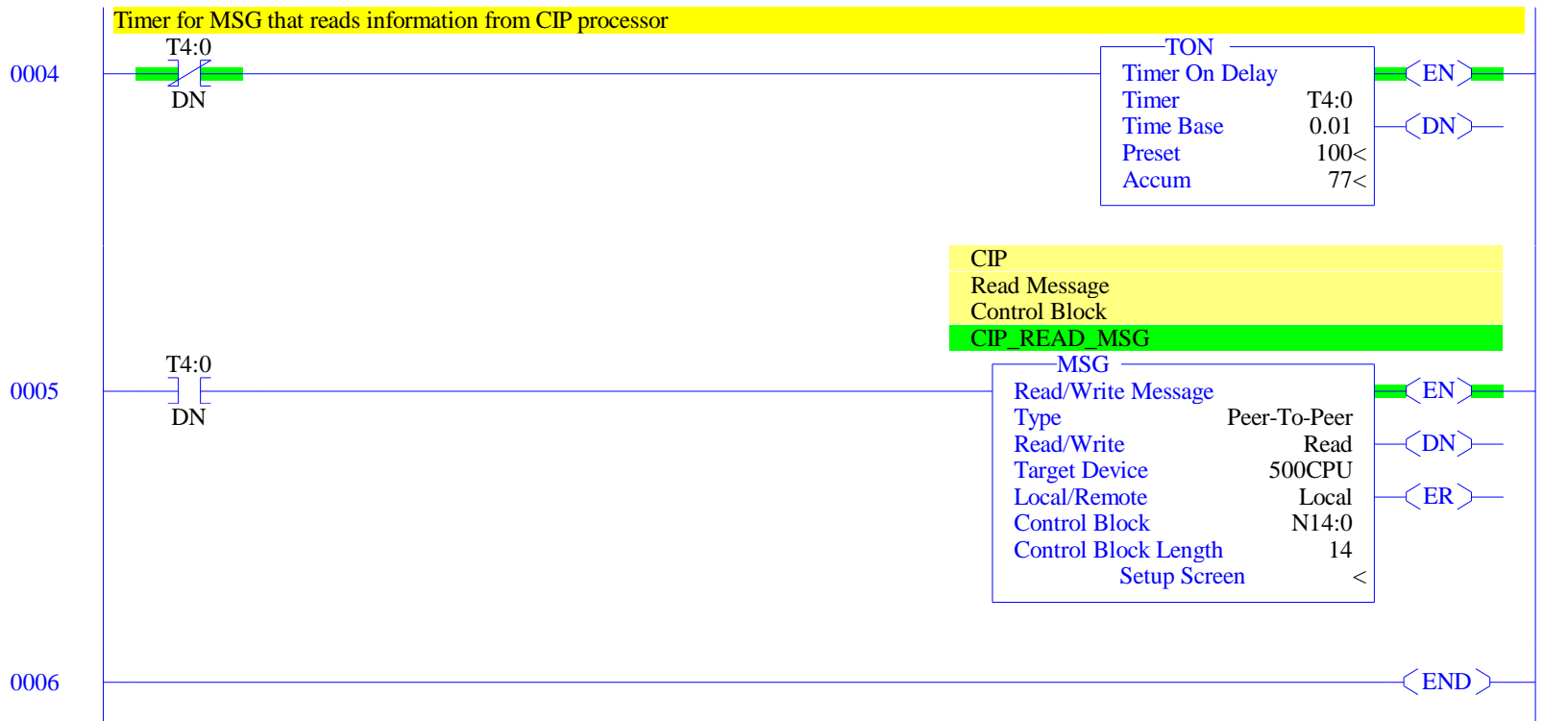
Name	Number	Type	Rungs	Debug	Bytes
[SYSTEM]	0	SYS	0	No	0
	1	SYS	0	No	0
MAIN	2	LADDER	14	No	134
COMMS	3	LADDER	7	No	171
ANALOGSCL	4	LADDER	5	No	135
PIDLOOPS	6	LADDER	7	No	147
MOTORS	10	LADDER	26	No	1186
VALVES	15	LADDER	8	No	313
FLOPGATES	17	LADDER	11	No	480
XFER_MISC	20	LADDER	3	No	107
XFER_START	21	LADDER	10	No	526
XFER_OPERA	22	LADDER	4	No	304
XFER_HOLD	26	LADDER	4	No	298
XFER_SHUTD	27	LADDER	12	No	636
XFER_ESHUT	28	LADDER	8	No	508
XFER_ABNOR	29	LADDER	7	No	159
SIMULATE	100	LADDER	13	No	526

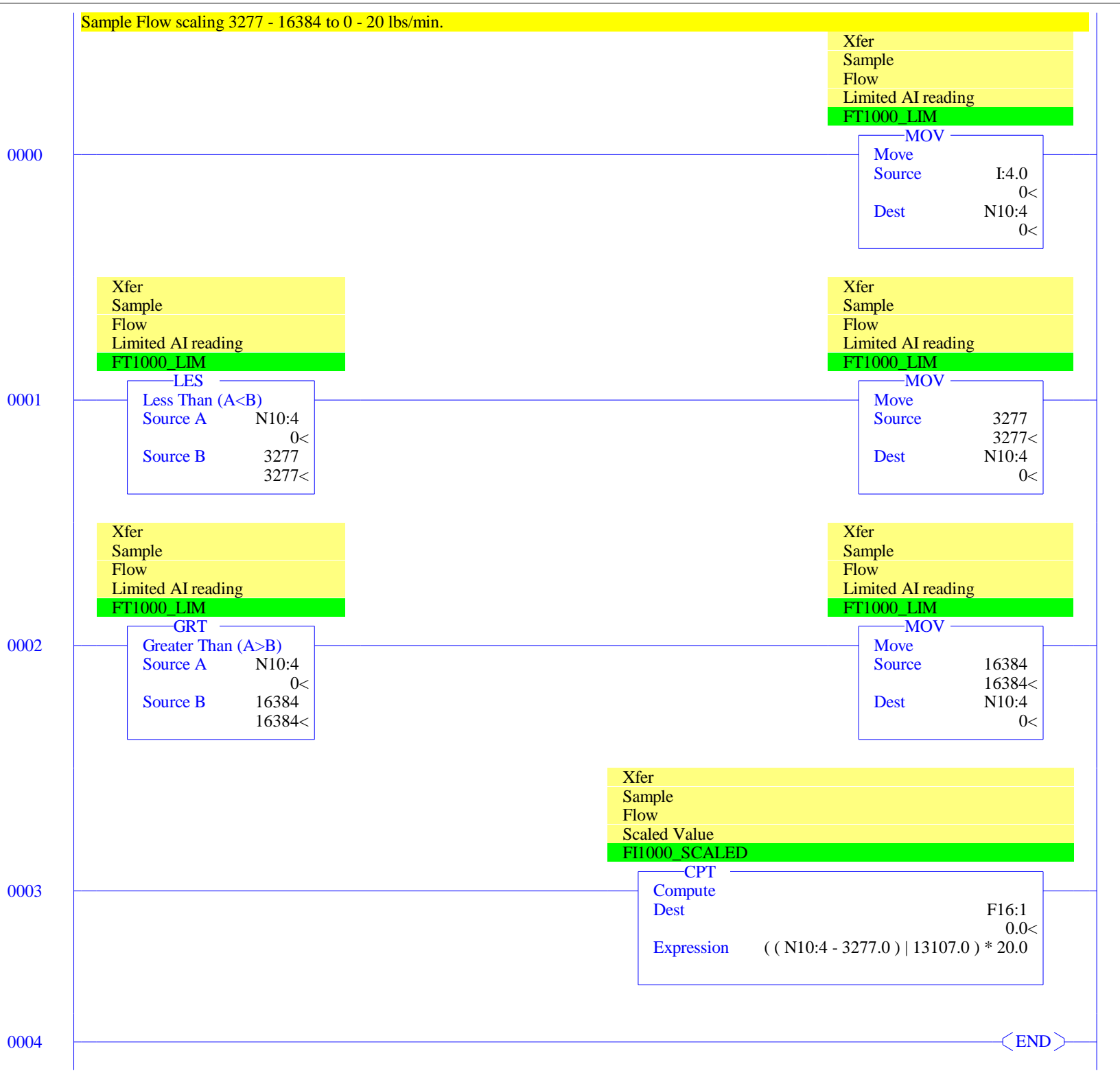
LAD 2 - MAIN --- Total Rungs in File = 14

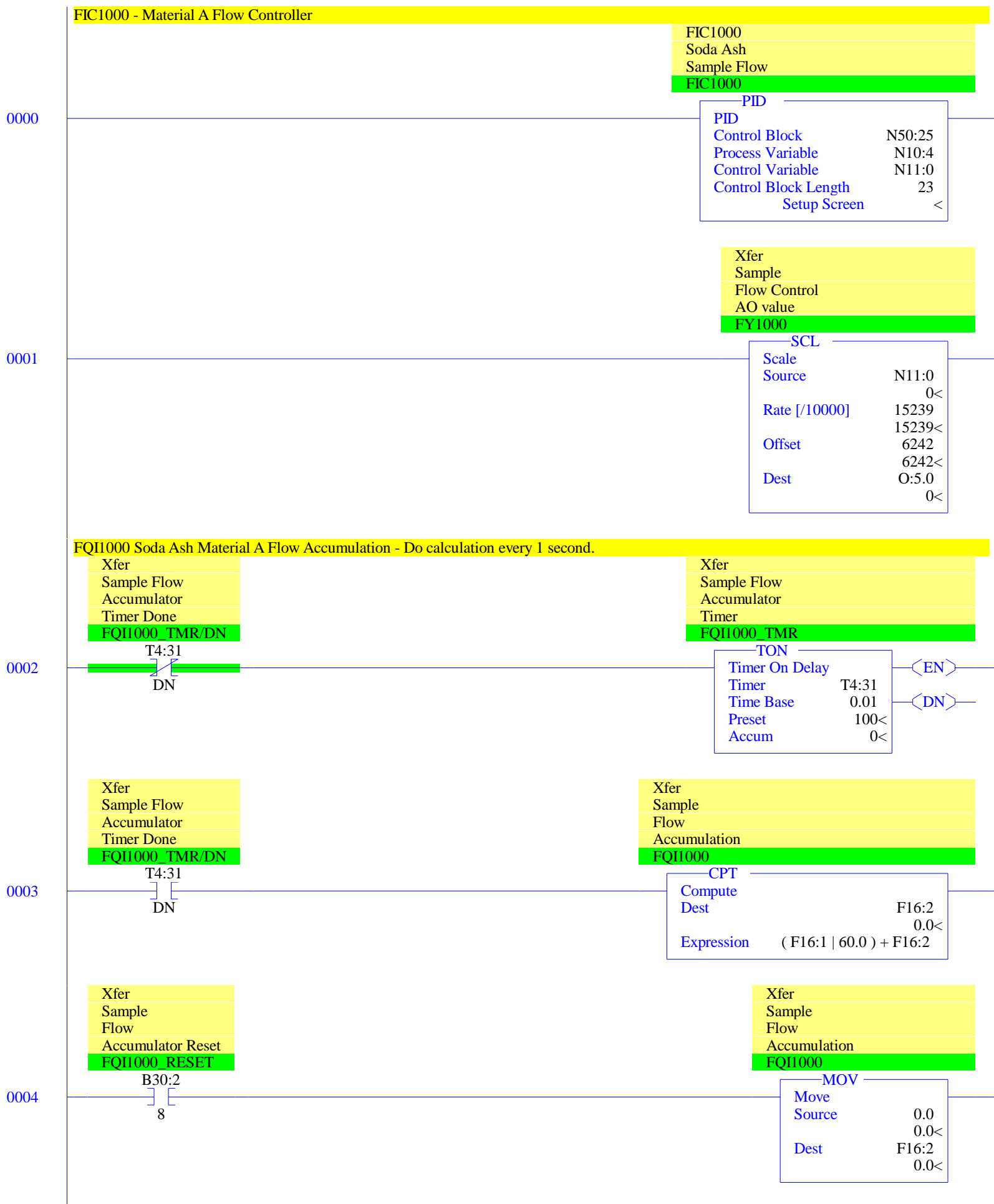


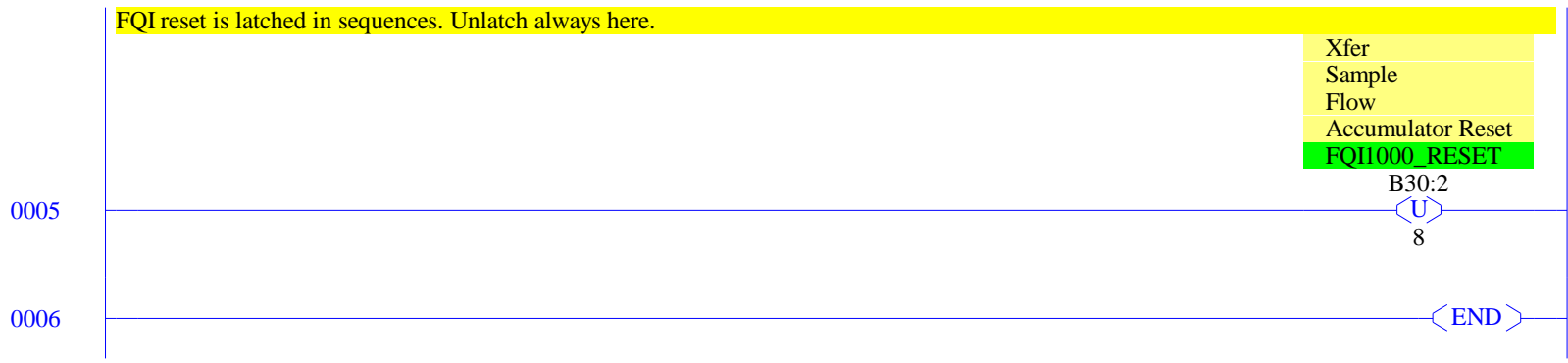


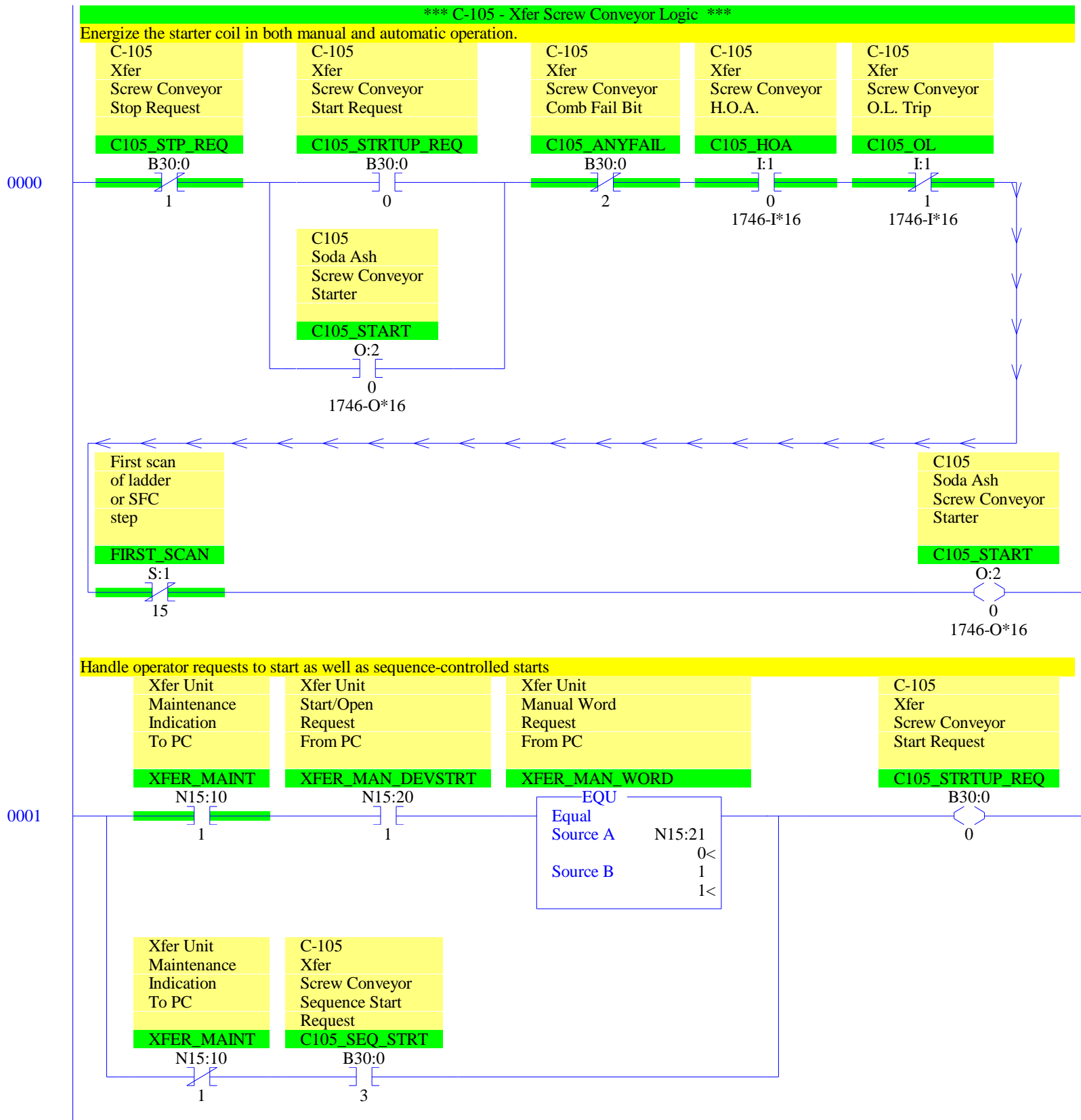




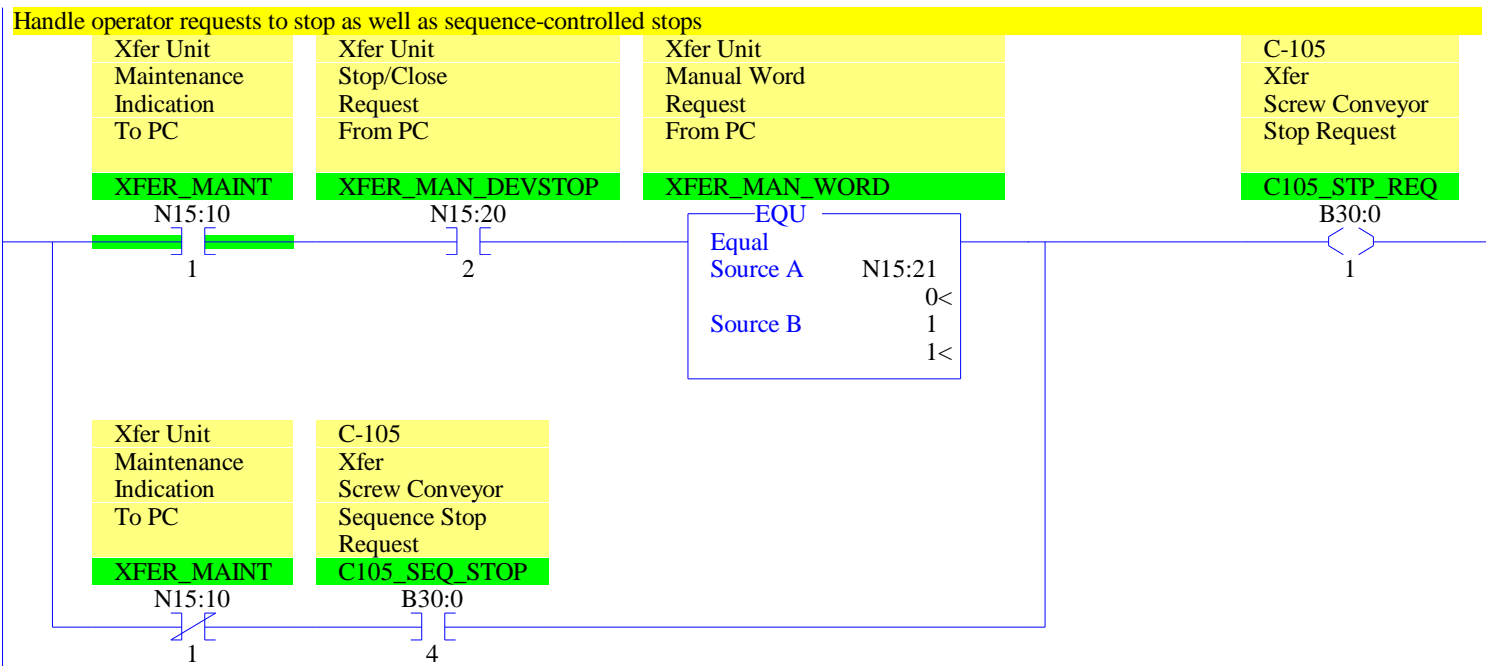




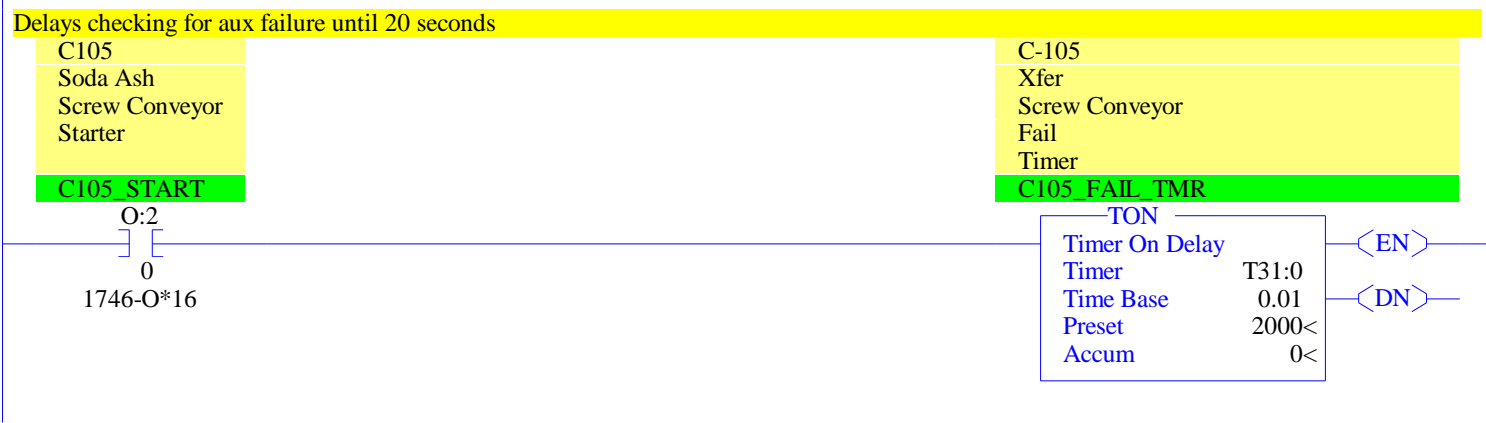




0002



0003



Failures: No aux after first 20 seconds, no speed switch after first 20 seconds, HOA switch not in auto, overload fail.

0004

C-105
Xfer
Screw Conveyor
Fail
Timer Done
C105_FAIL_TMR/DN

T31:0

DN

C-105
Xfer
Screw Conveyor
O.L. Trip
C105_OL

I:1

1

1746-I*16

C-105
Xfer
Screw Conveyor
H.O.A.
C105_HOA

I:1

0

1746-I*16

C-105
Xfer
Screw Conveyor
Aux. Contact
C105_AUX

I:1

2

1746-I*16

C105
Soda Ash
Screw Conveyor
AuxiliaryFail
to PC
C105_AUXFLPC

N17:0

0

SS105
Xfer
Conveyor
Speed Switch
SS105_INPUT

I:3

4

1746-ITB16

SS105
Soda Ash
Speed Switch
Fail Status
to PC
SS6100_FAILTOPC

N17:1

1

C-105
Xfer
Screw Conveyor
H.O.A.
C105_HOA

I:1

0

1746-I*16

C105
Soda Ash
Screw Conveyor
HOA Fail
to PC
C105_HOAF LPC

N17:0

1

C-105
Xfer
Screw Conveyor
O.L. Trip
C105_OL

I:1

1

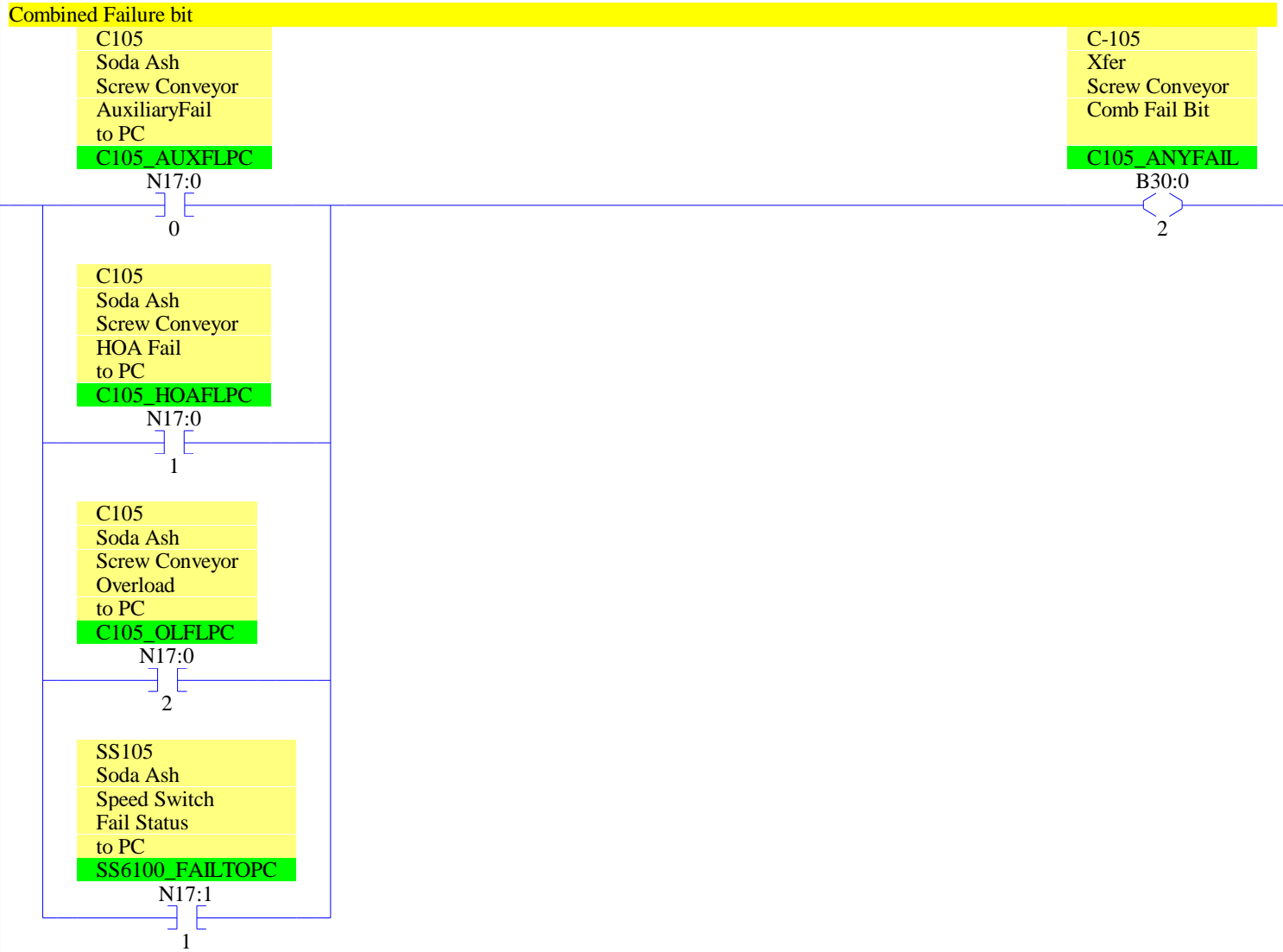
1746-I*16

C105
Soda Ash
Screw Conveyor
Overload
to PC
C105_OLFLPC

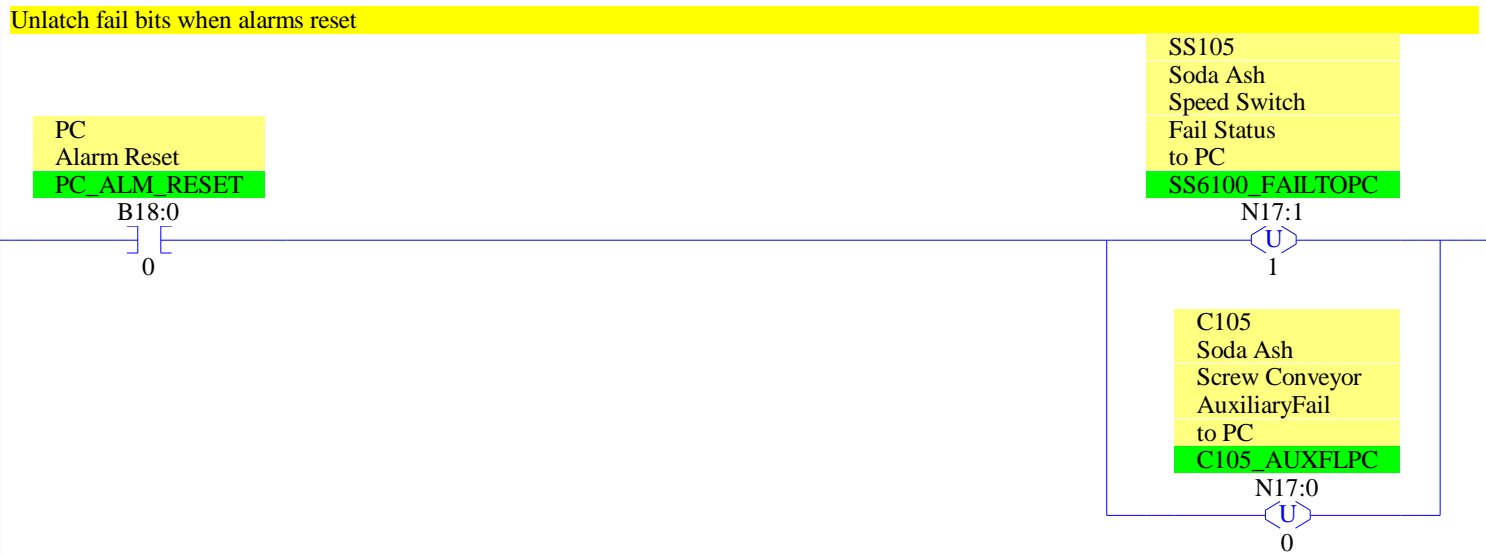
N17:0

2

0005



0006



0007

C-105

Xfer

Screw Conveyor

Sequence Start

Request

C105_SEQ_STRT

B30:0



3

C-105

Xfer

Screw Conveyor

Sequence Stop

Request

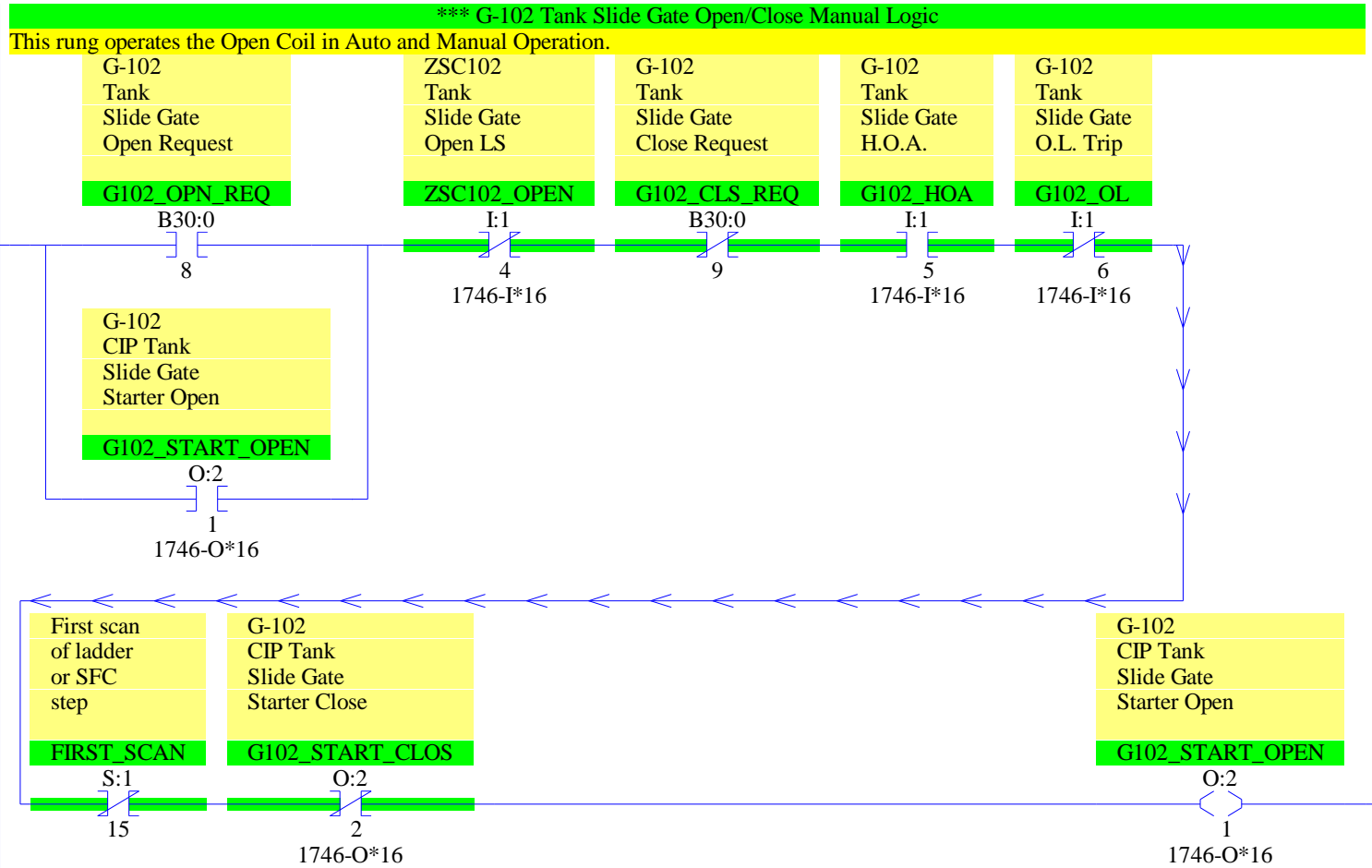
C105_SEQ_STOP

B30:0

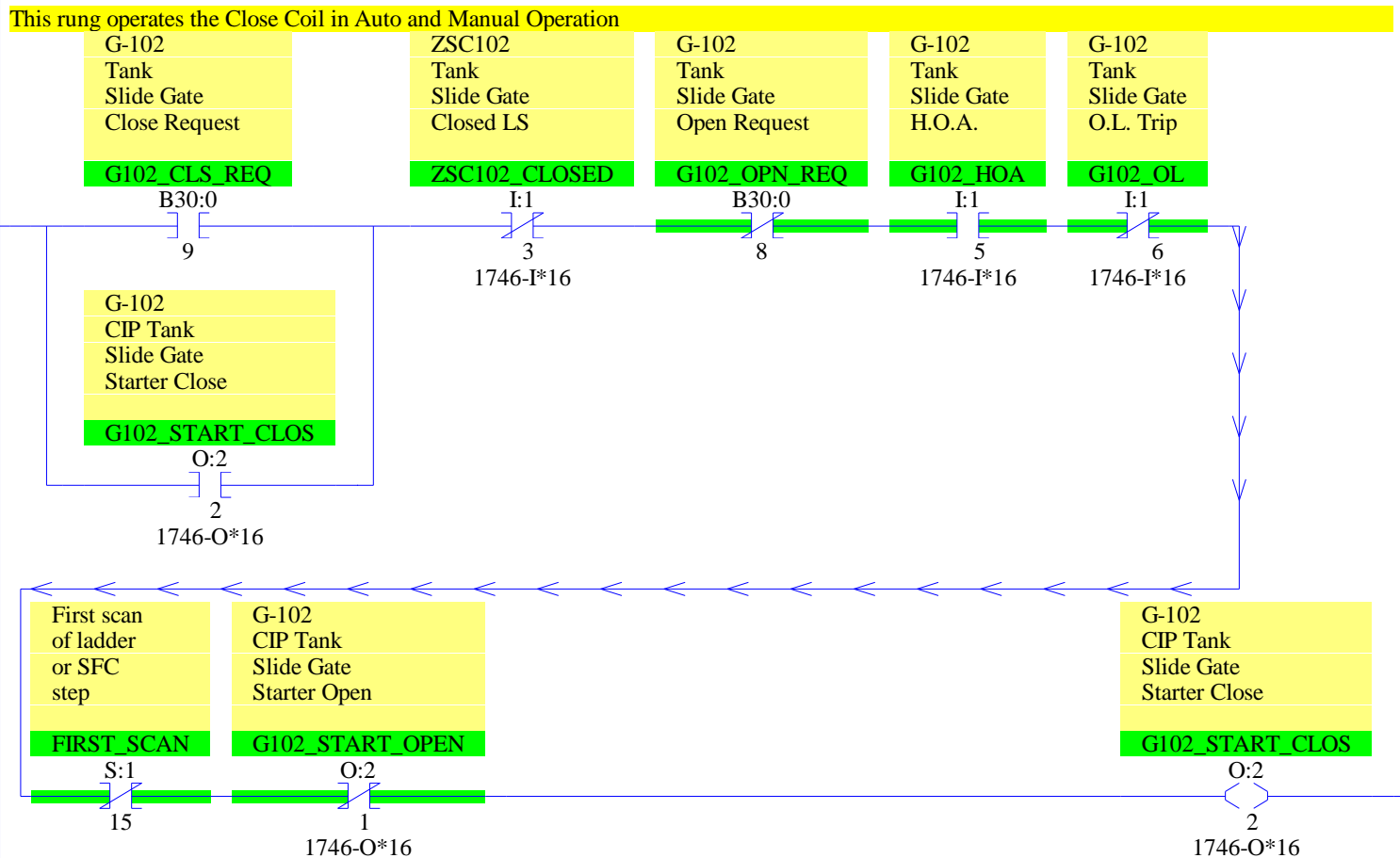


4

0008



0009



0010

Handle operator requests to open as well as sequence-controlled opens

Xfer Unit
Maintenance
Indication
To PC
XFER_MAINT

N15:10

1

Xfer Unit
Start/Open
Request
From PC
XFER_MAN_DEVSTRT

N15:20

1

Xfer Unit
Manual Word
Request
From PC
XFER_MAN_WORD

EQU

Equal

Source A

N15:21

0<

Source B

2

2<

G-102
Tank
Slide Gate
Open Request
G102_OPN_REQ

B30:0

8

Xfer Unit
Maintenance
Indication
To PC
XFER_MAINT

N15:10

1

G-102
Tank
Slide Gate
Sequence Open
Request
G102_SEQ_OPEN

B30:0

11

Handle operator requests to close as well as sequence-controlled closes

Xfer Unit
Maintenance
Indication
To PC
XFER_MAINT

N15:10

1

Xfer Unit
Stop/Close
Request
From PC
XFER_MAN_DEVSTOP

N15:20

2

Xfer Unit
Manual Word
Request
From PC
XFER_MAN_WORD

EQU

Equal

Source A

N15:21

0<

Source B

2

2<

G-102
Tank
Slide Gate
Close Request
G102_CLS_REQ

B30:0

9

Xfer Unit
Maintenance
Indication
To PC
XFER_MAINT

N15:10

1

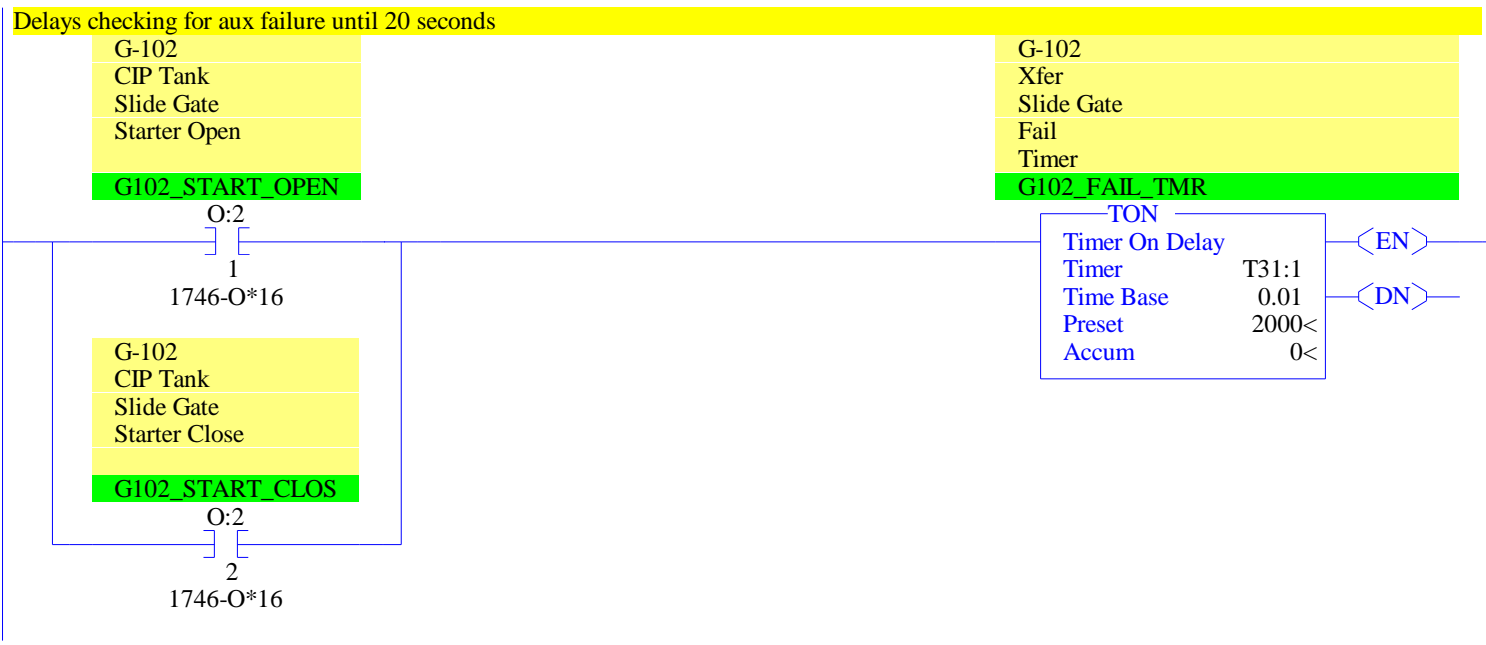
G-102
Tank
Slide Gate
Sequence Close
Request
G102_SEQ_CLOS

B30:0

12

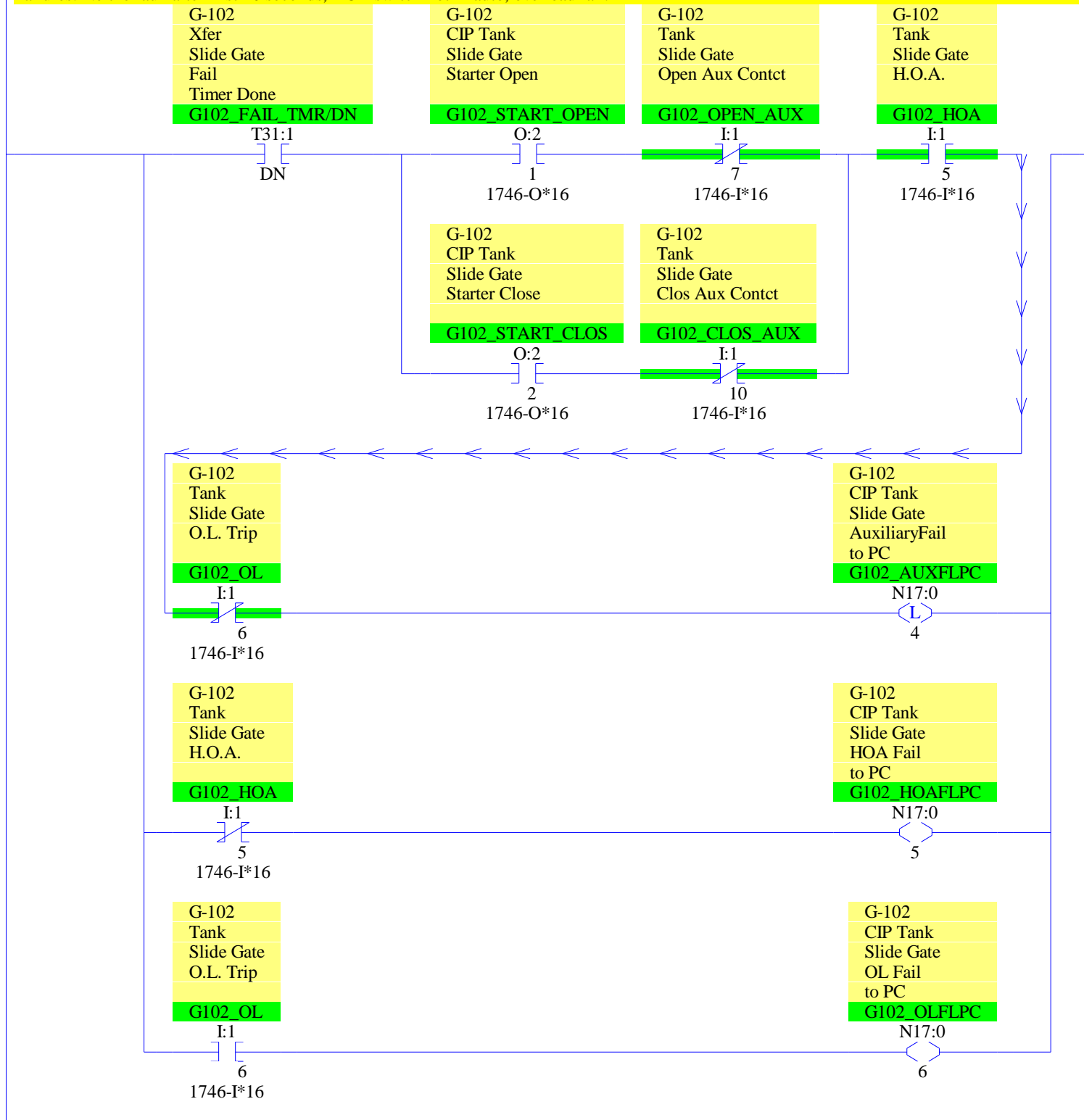
0011

0012

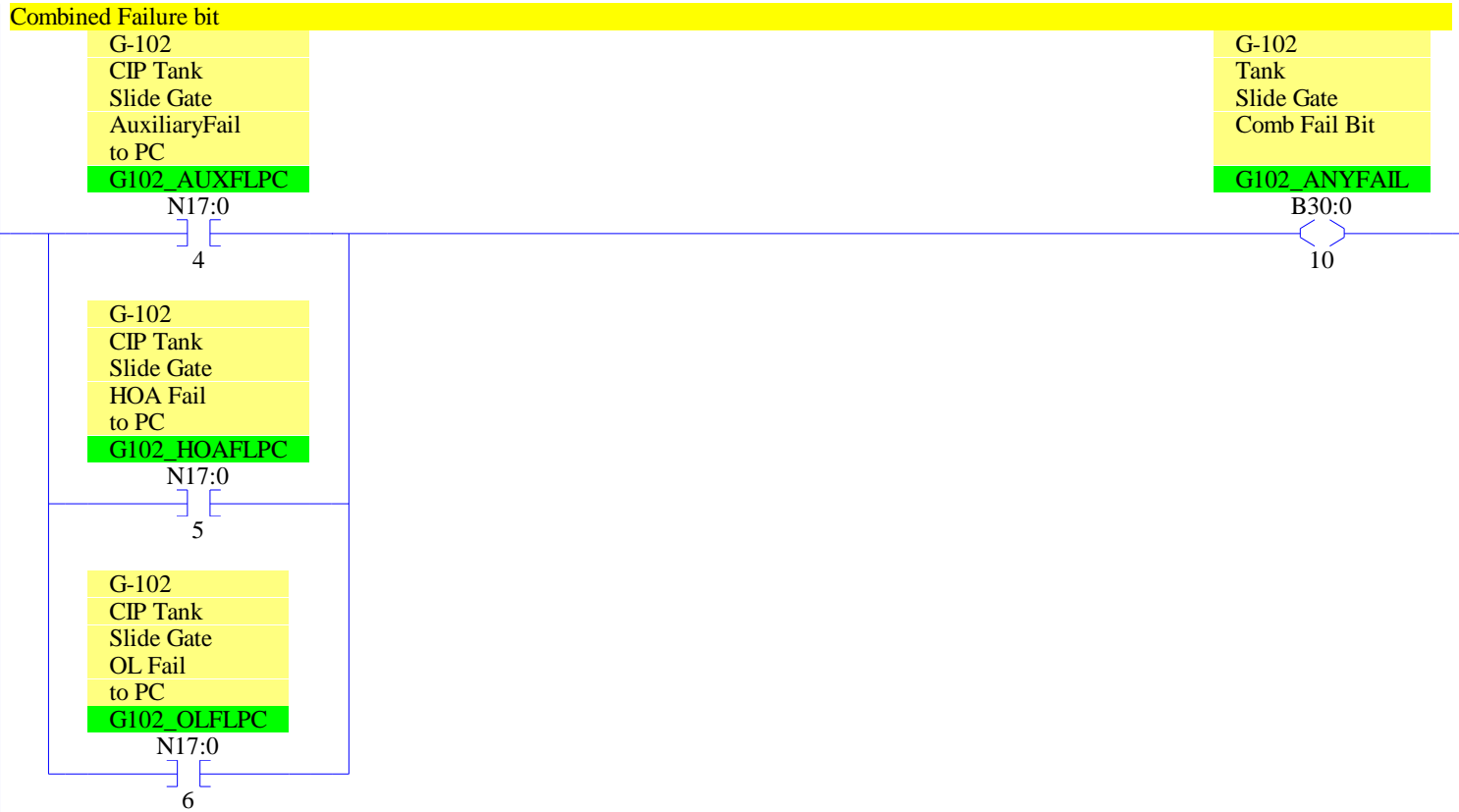


0013

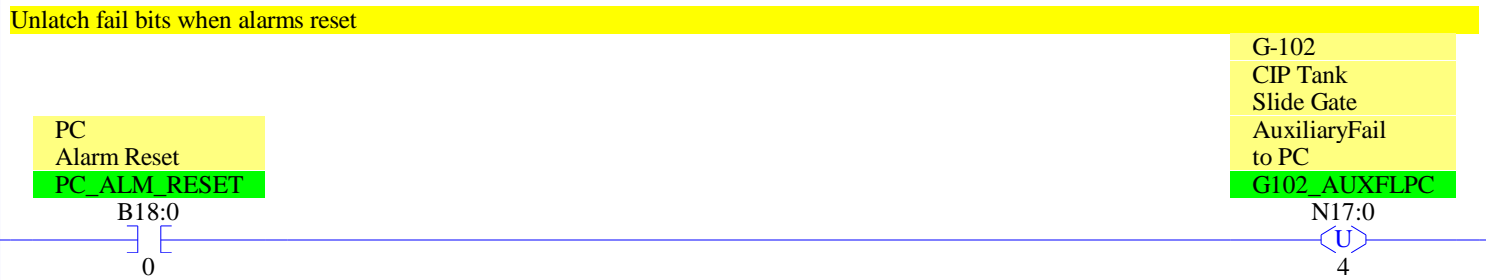
Failures: Neither aux after first 20 seconds, HOA switch not in auto, overload fail.



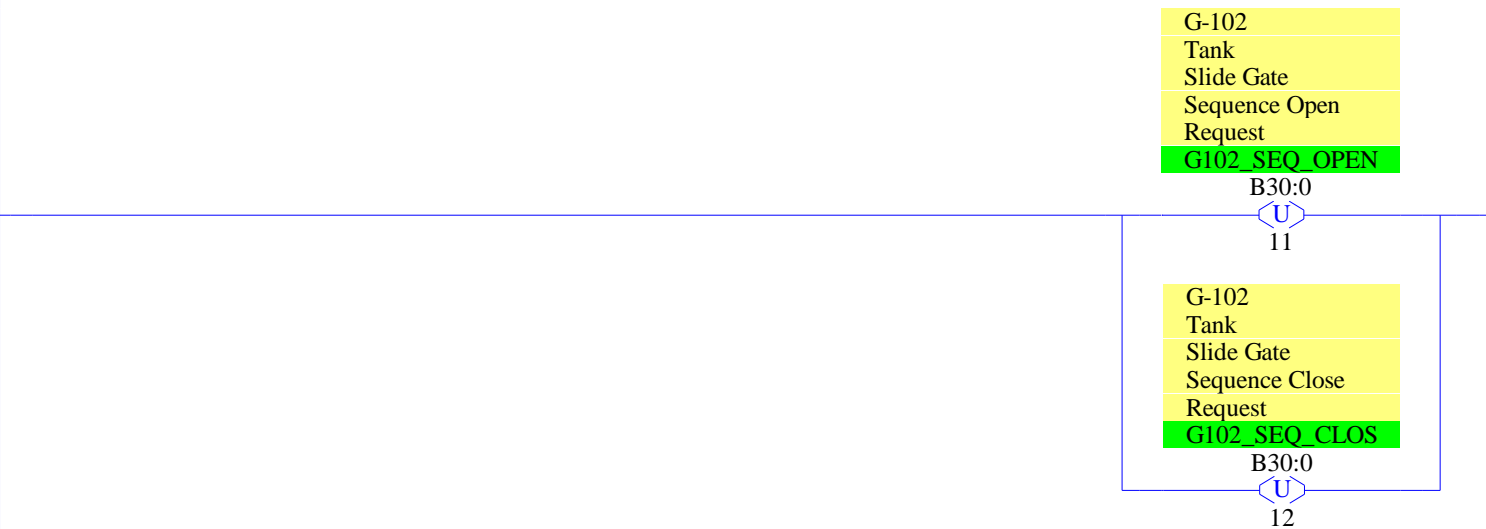
0014

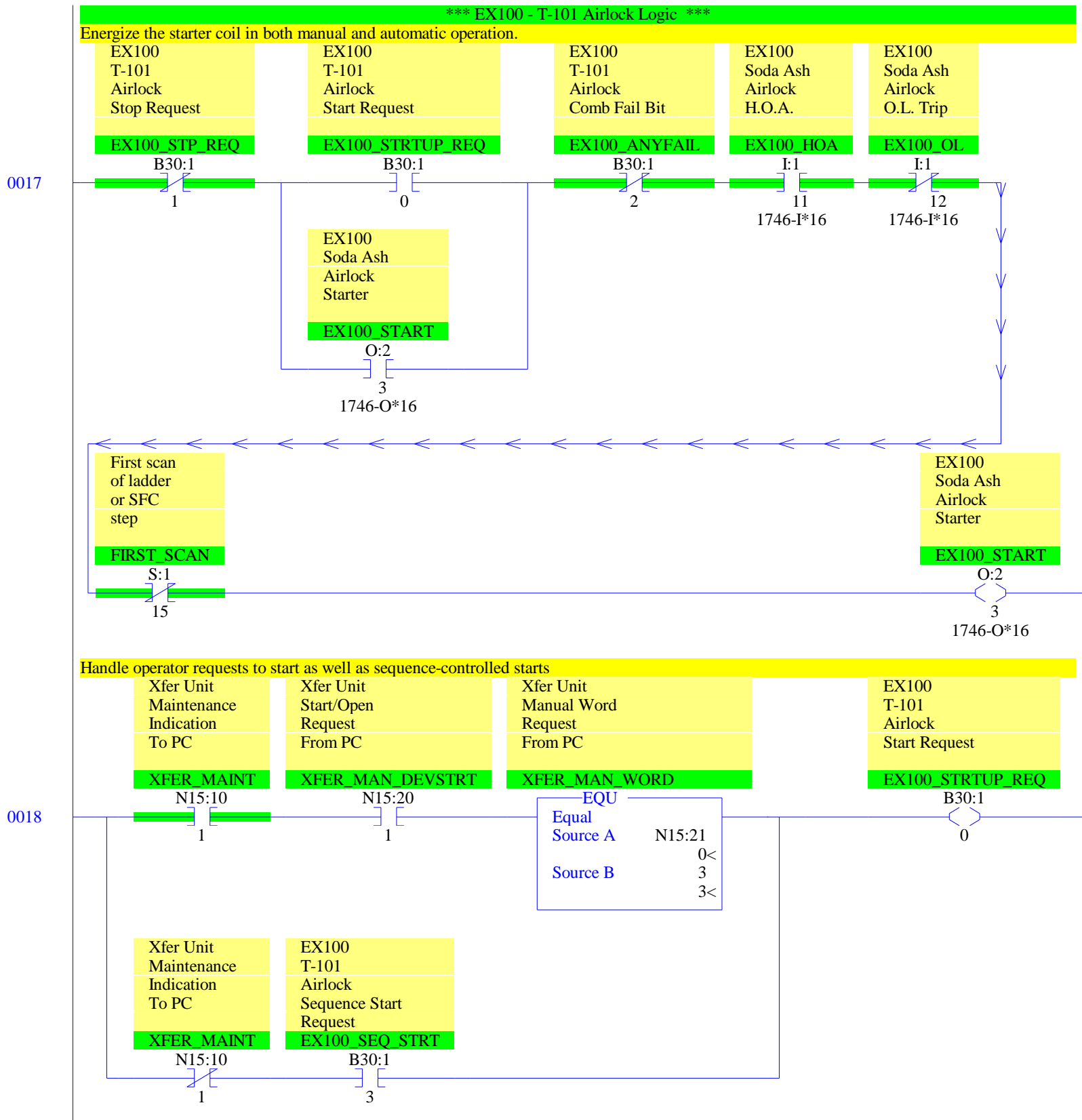


0015

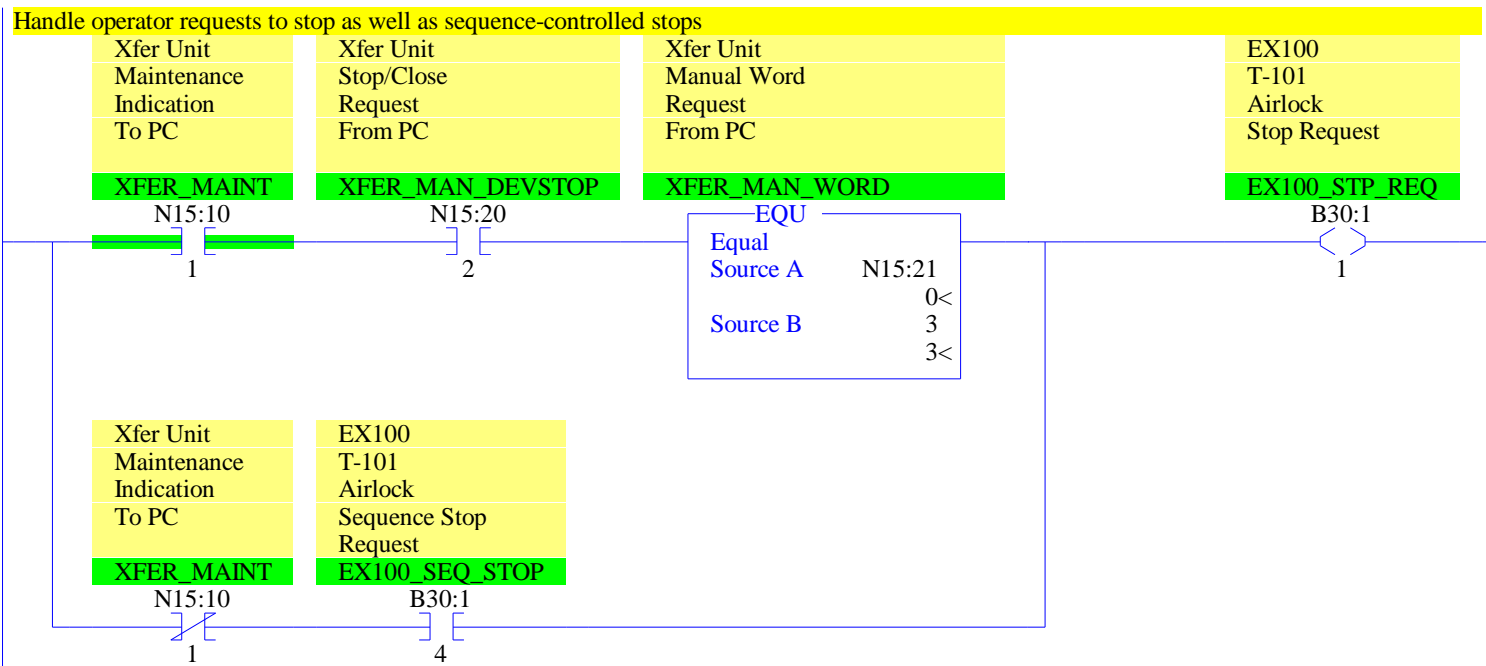


0016

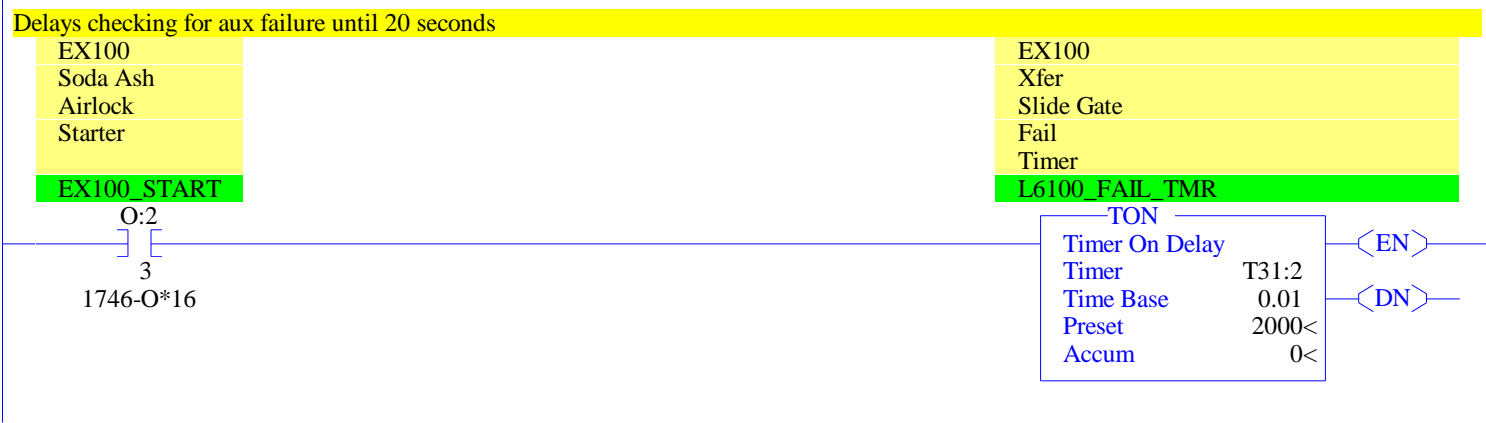




0019

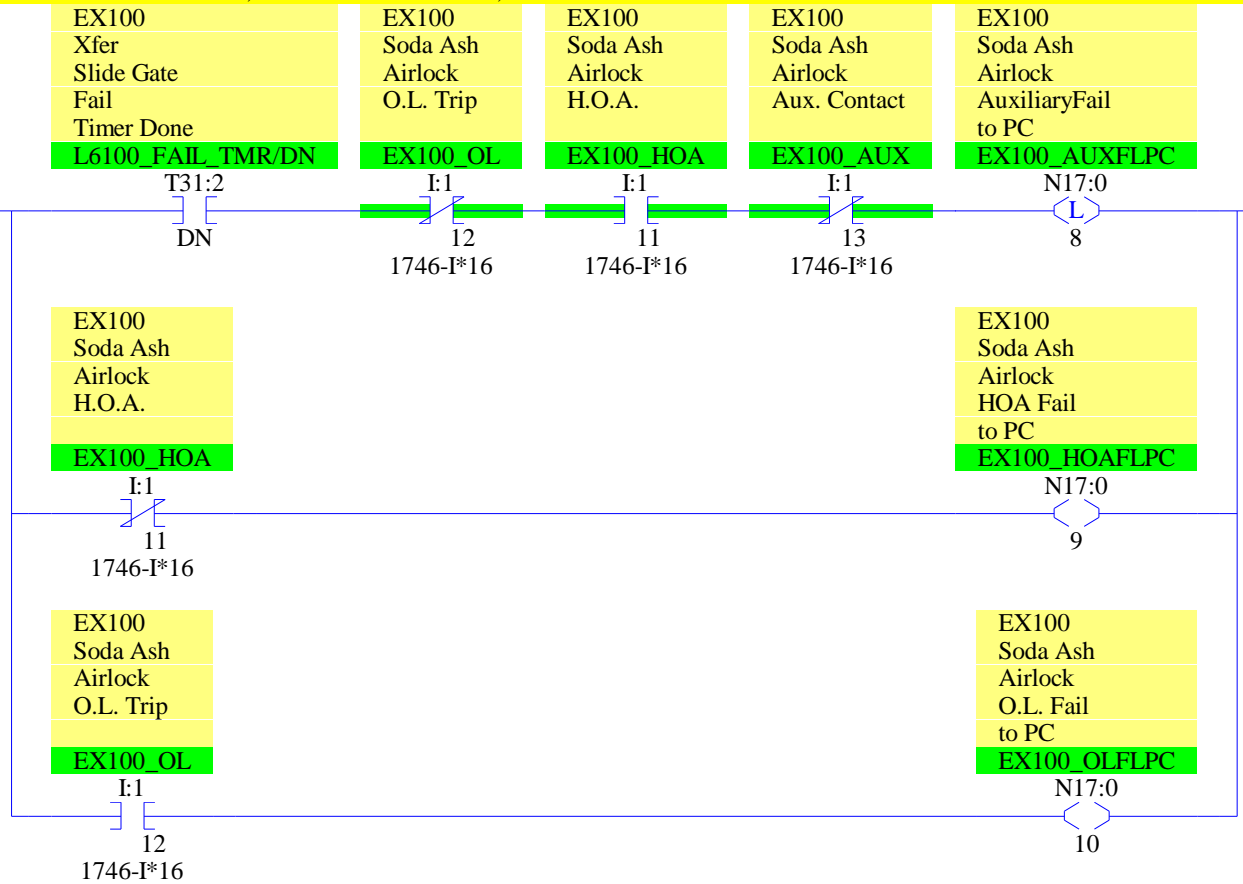


0020



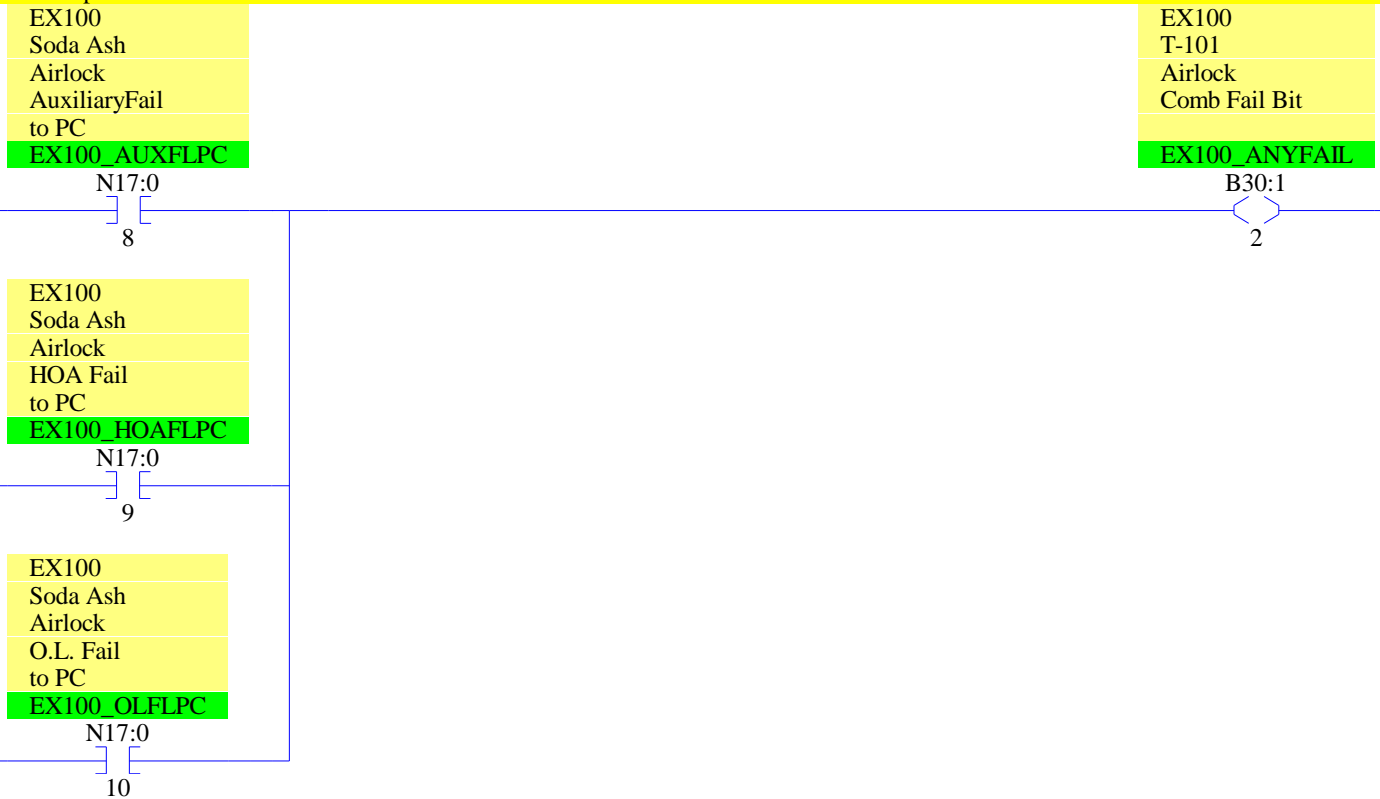
0021

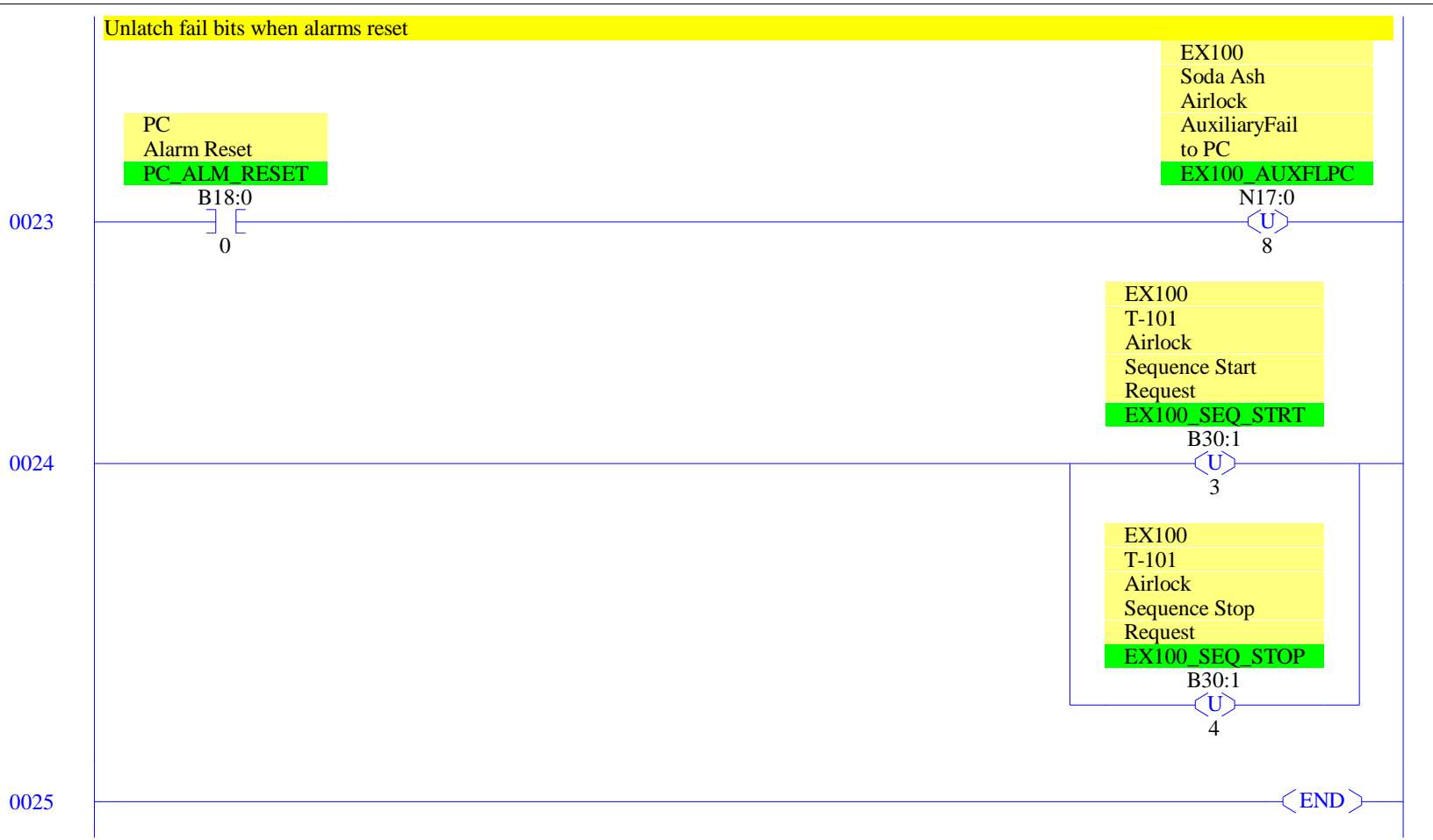
Pump failures: No aux after first 20 seconds, HOA switch not in auto, overload fail.



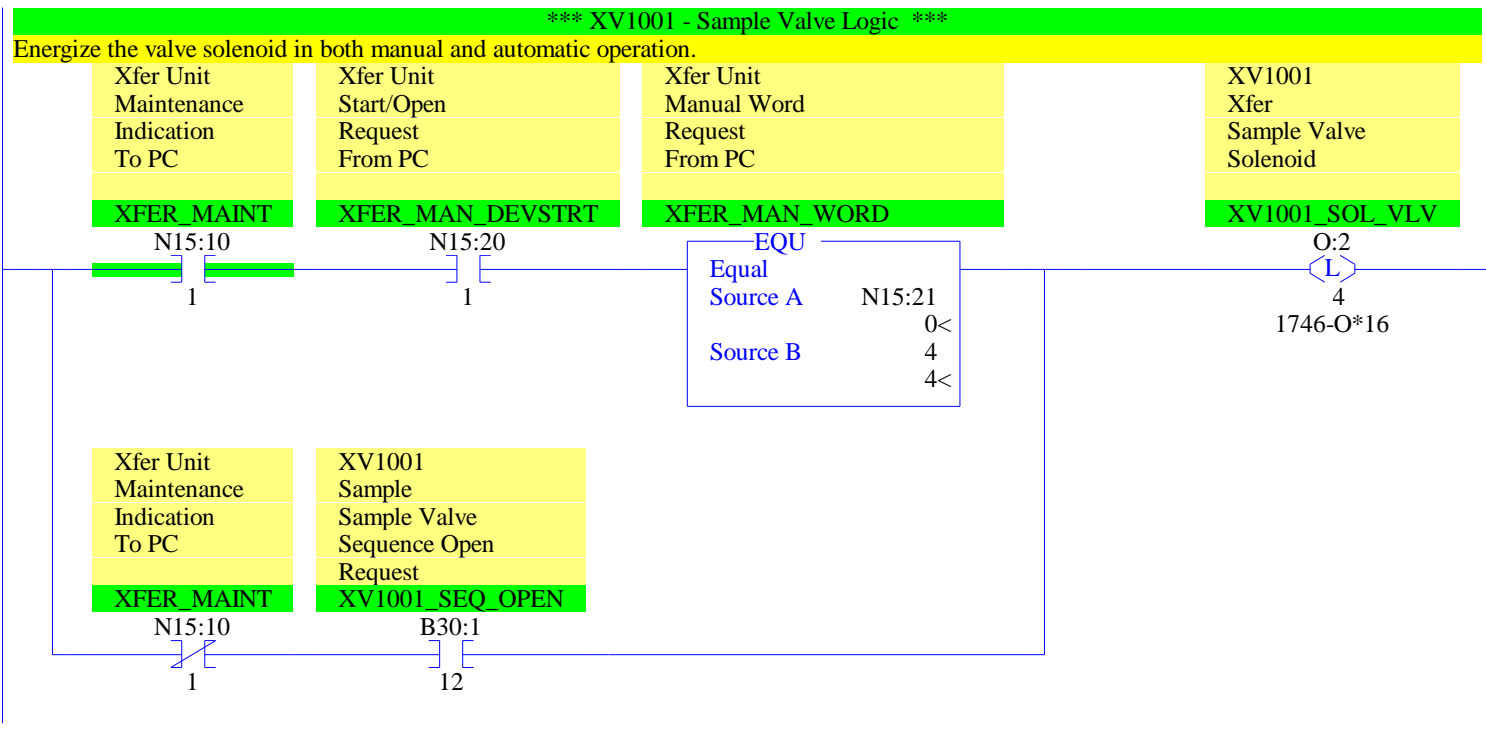
0022

Combined Pump Failure bit

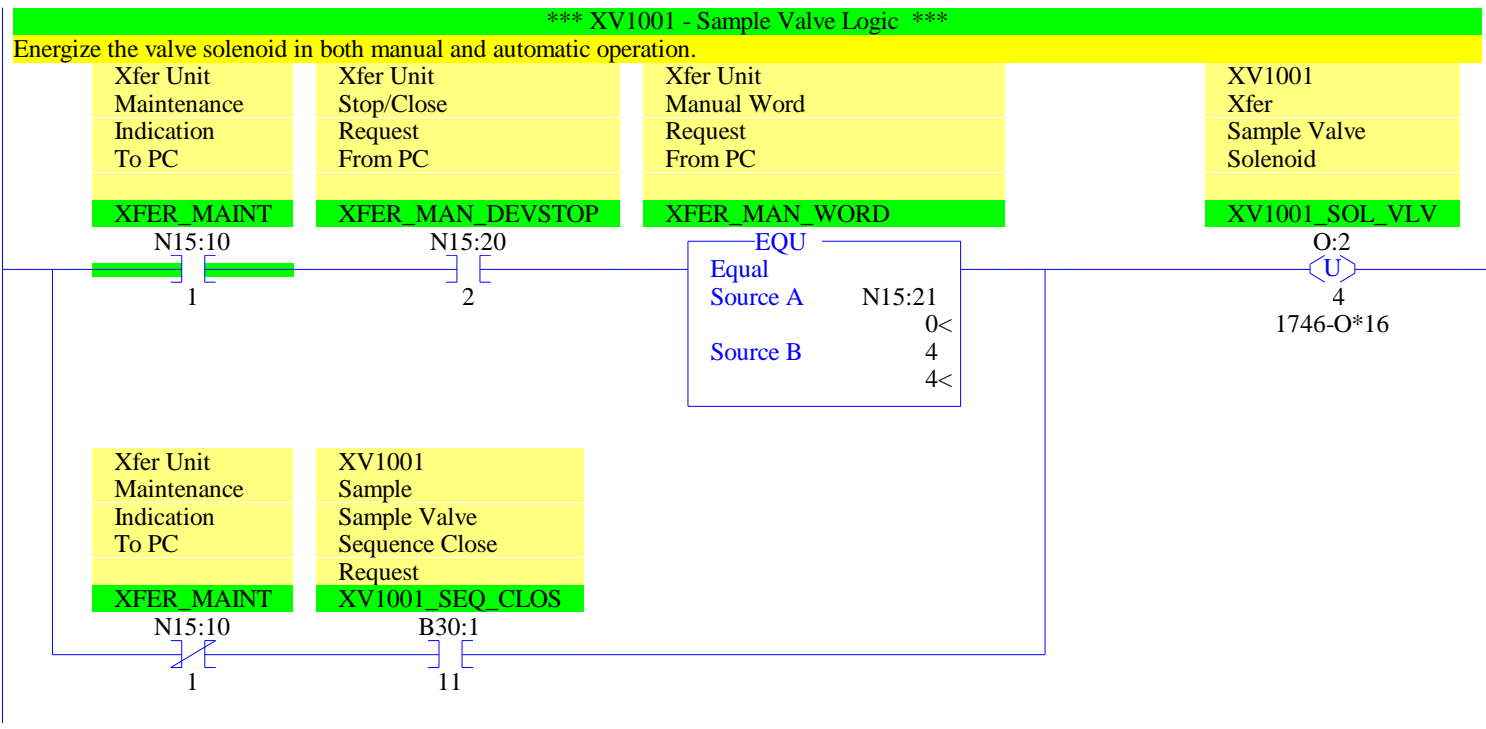




0000



0001



0002

Activate the device fail timer if both limit switches are on, both off, open cmd and open LS is off, or close cmd and close LS is off.

XV1001
Xfer
Sample Valve
Closed LS
XV1001_CLOSLS

XV1001
Xfer
Sample Valve
Open LS
XV1001_OPENLS

XV1001
Xfer
Sample Valve
Fail
Timer
XV1001_FAIL_TMR

I:1
14
1746-I*16

I:1
15
1746-I*16

TON
Timer On Delay
Timer T31:3
Time Base 0.01
Preset 2000<
Accum 0<

EN

DN

XV1001
Xfer
Sample Valve
Solenoid
XV1001_SOL_VLV

XV1001
Xfer
Sample Valve
Open LS
XV1001_OPENLS

O:2
4
1746-O*16

I:1
15
1746-I*16

XV1001
Xfer
Sample Valve
Solenoid
XV1001_SOL_VLV

XV1001
Xfer
Sample Valve
Closed LS
XV1001_CLOSLS

O:2
4
1746-O*16

I:1
14
1746-I*16

XV1001
Xfer
Sample Valve
Closed LS
XV1001_CLOSLS

XV1001
Xfer
Sample Valve
Open LS
XV1001_OPENLS

I:1
14
1746-I*16

I:1
15
1746-I*16

Valve failures: Fail-to-open, Fail-to-close. Latch appropriate fail bit, depending on commanded valve position

XV1001
Xfer
Sample Valve
Fail
Timer Done
XV1001_FAIL_TMR/DN

XV1001
Xfer
Sample Valve
Solenoid
XV1001_SOL_VLV

XV1001
Soda Ash
Sample Valve
Fail to Open
to PC
XV1001_FTOPC

T31:3
DN

O:2
4
1746-O*16

N17:0
13

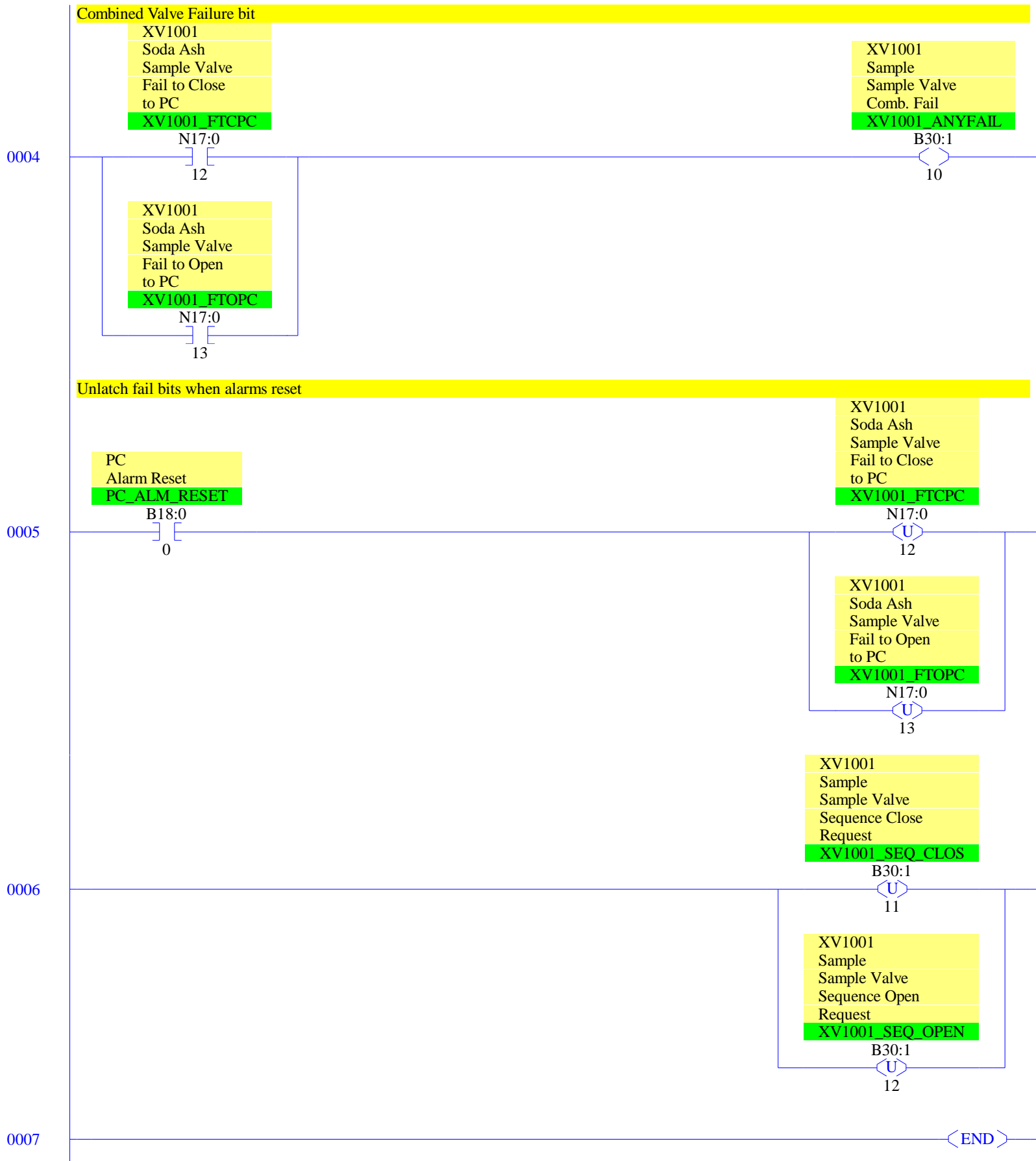
XV1001
Xfer
Sample Valve
Solenoid
XV1001_SOL_VLV

XV1001
Soda Ash
Sample Valve
Fail to Close
to PC
XV1001_FTCPC

O:2
4
1746-O*16

N17:0
12

0003



0000

*** G-6200 CIP Tank Flop Gate Left/Right Manual Logic

This rung operates the Left Coil in Auto and Manual Operation.

G-6200
Sample
Flop Gate
Left Request

G6200_LFT_REQ

B30:2

0

G-6200
CIP Tank
Flop Gate
Left Limit Switch

ZSL6200

I:3

0

1746-ITB16

G-6200
Sample
Flop Gate
Right Request

G6200_RGT_REQ

B30:2

1

G-6200
Sample
Flop Gate
Comb Fail Bit

G6200_ANYFAIL

B30:2

2

G-6200
CIP Tank
Flop Gate
H.O.A.

G6200_HOA

I:3

2

1746-ITB16

G-6200
CIP Tank
Flop Gate
Left Solenoid

G6200_SOL_LEFT

O:2

5

1746-O*16

First scan
of ladder
or SFC
step

FIRST_SCAN

S:1

15

G-6200
CIP Tank
Flop Gate
Right Solenoid

G6200_SOL_RIGHT

O:2

6

1746-O*16

G-6200
CIP Tank
Flop Gate
Left Solenoid

G6200_SOL_LEFT

O:2

5

1746-O*16

0001

This rung operates the Right Coil in Auto and Manual Operation

G-6200
Sample
Flop Gate
Right Request

G6200_RGT_REQ

B30:2

1

G-6200
CIP Tank
Flop Gate
Right Limit Switch

ZSR6200

I:3

1

1746-ITB16

G-6200
Sample
Flop Gate
Left Request

G6200_LFT_REQ

B30:2

0

G-6200
Sample
Flop Gate
Comb Fail Bit

G6200_ANYFAIL

B30:2

2

G-6200
CIP Tank
Flop Gate
H.O.A.

G6200_HOA

I:3

2

1746-ITB16

G-6200
CIP Tank
Flop Gate
Right Solenoid

G6200_SOL_RIGHT

O:2

6

1746-O*16

First scan
of ladder
or SFC
step

FIRST_SCAN

S:1

15

G-6200
CIP Tank
Flop Gate
Left Solenoid

G6200_SOL_LEFT

O:2

5

1746-O*16

G-6200
CIP Tank
Flop Gate
Right Solenoid

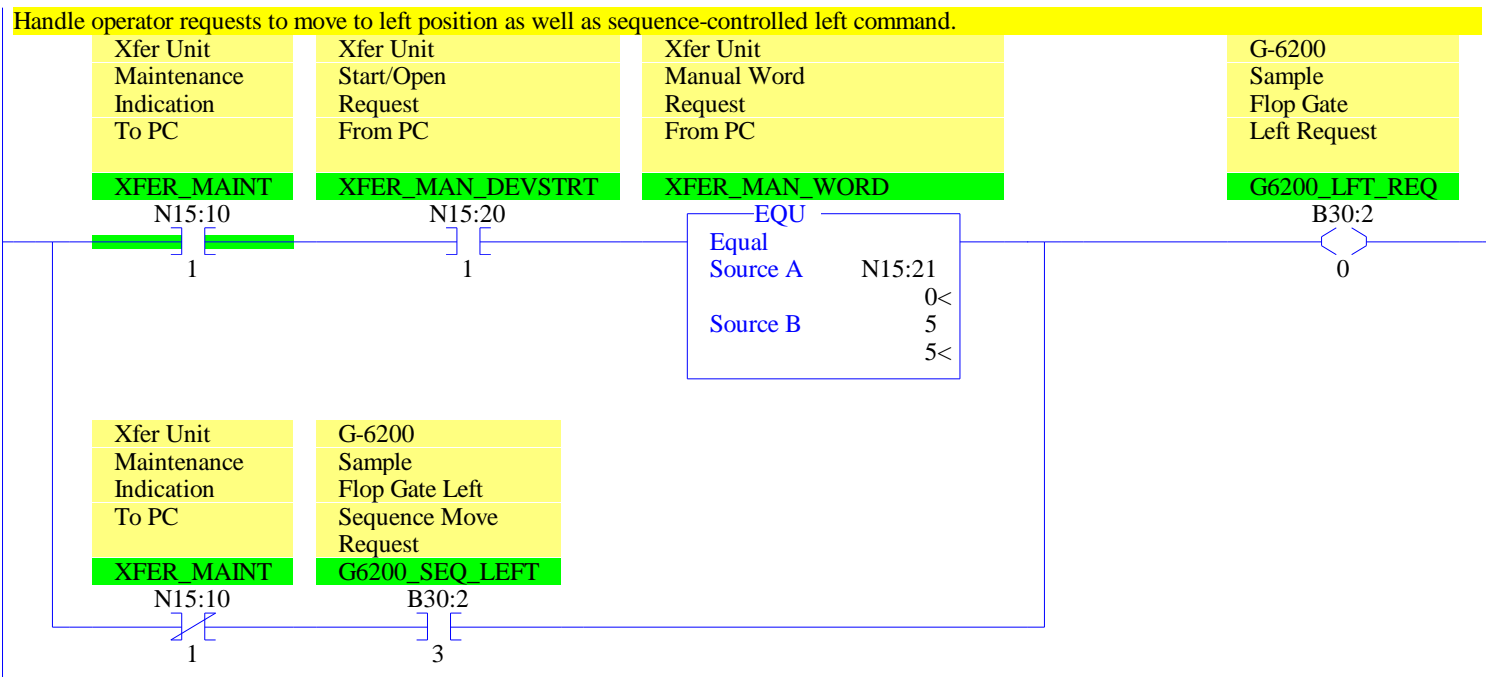
G6200_SOL_RIGHT

O:2

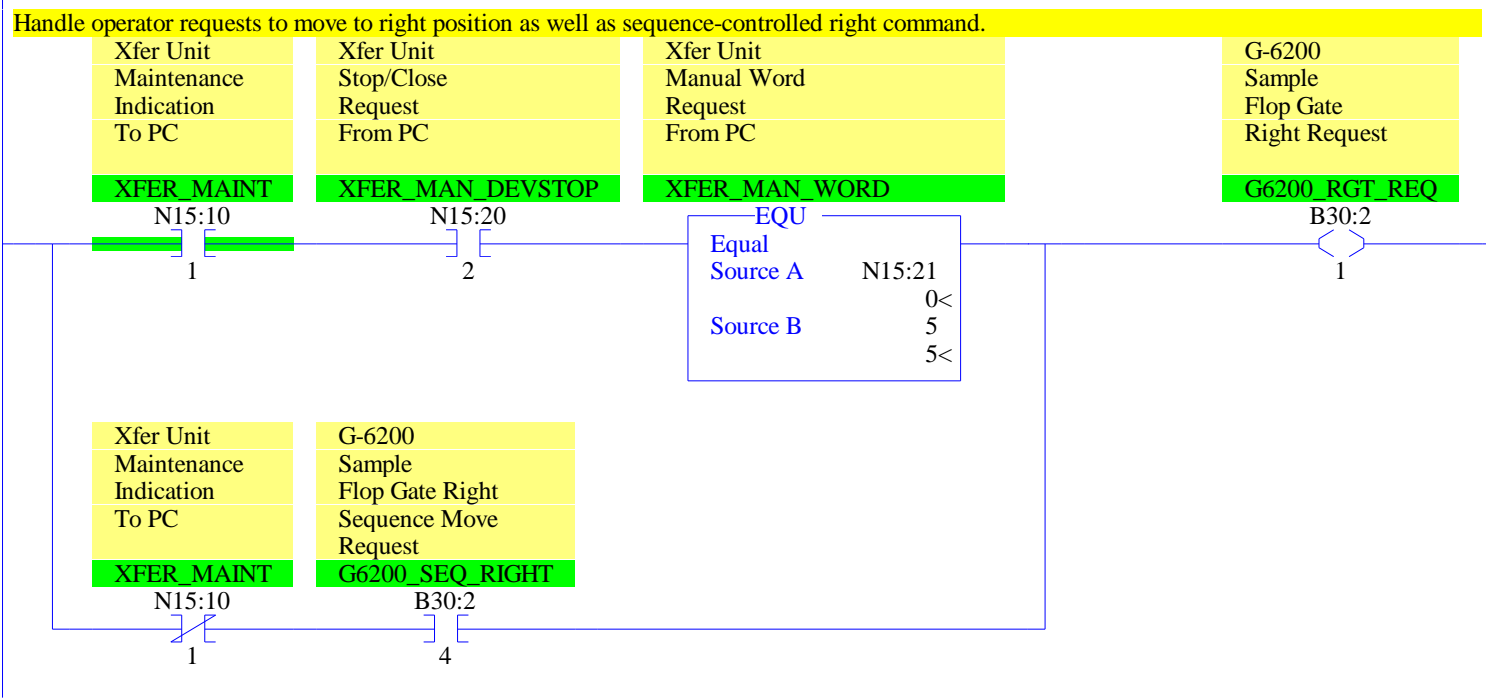
6

1746-O*16

0002



0003



0004

Activate the device fail timer if both limit switches are on, both off, left cmd and left LS switch is off, or right cmd and right LS off

G-6200
CIP Tank
Flop Gate
Left Limit Switch
ZSL6200

G-6200
CIP Tank
Flop Gate
Right Limit Switch
ZSR6200

G-6200
Xfer
Flop Gate
Fail
Timer
G6200_FAIL_TMR

I:3
0
1746-ITB16

I:3
1
1746-ITB16

TON
Timer On Delay
Timer T31:4
Time Base 0.01
Preset 2000<
Accum 0<

G-6200
CIP Tank
Flop Gate
Left Solenoid
G6200_SOL_LEFT

G-6200
CIP Tank
Flop Gate
Left Limit Switch
ZSL6200

O:2
5
1746-O*16

I:3
0
1746-ITB16

G-6200
CIP Tank
Flop Gate
Right Solenoid
G6200_SOL_RIGHT

G-6200
CIP Tank
Flop Gate
Right Limit Switch
ZSR6200

O:2
6
1746-O*16

I:3
1
1746-ITB16

G-6200
CIP Tank
Flop Gate
Left Limit Switch
ZSL6200

G-6200
CIP Tank
Flop Gate
Right Limit Switch
ZSR6200

I:3
0
1746-ITB16

I:3
1
1746-ITB16

Gate failures: Fail-to-open-left, Fail-to-open-right. Latch appropriate fail bit, depending on commanded valve position.

G-6200
Xfer
Flop Gate
Fail
Timer Done
G6200_FAIL_TMR/DN

G-6200
CIP Tank
Flop Gate
Left Solenoid
G6200_SOL_LEFT

G-6200
CIP Tank
Flop Gate
Left Fail
to PC
G6200_LFTFLPC

T31:4
DN

O:2
5
1746-O*16

N17:2
2

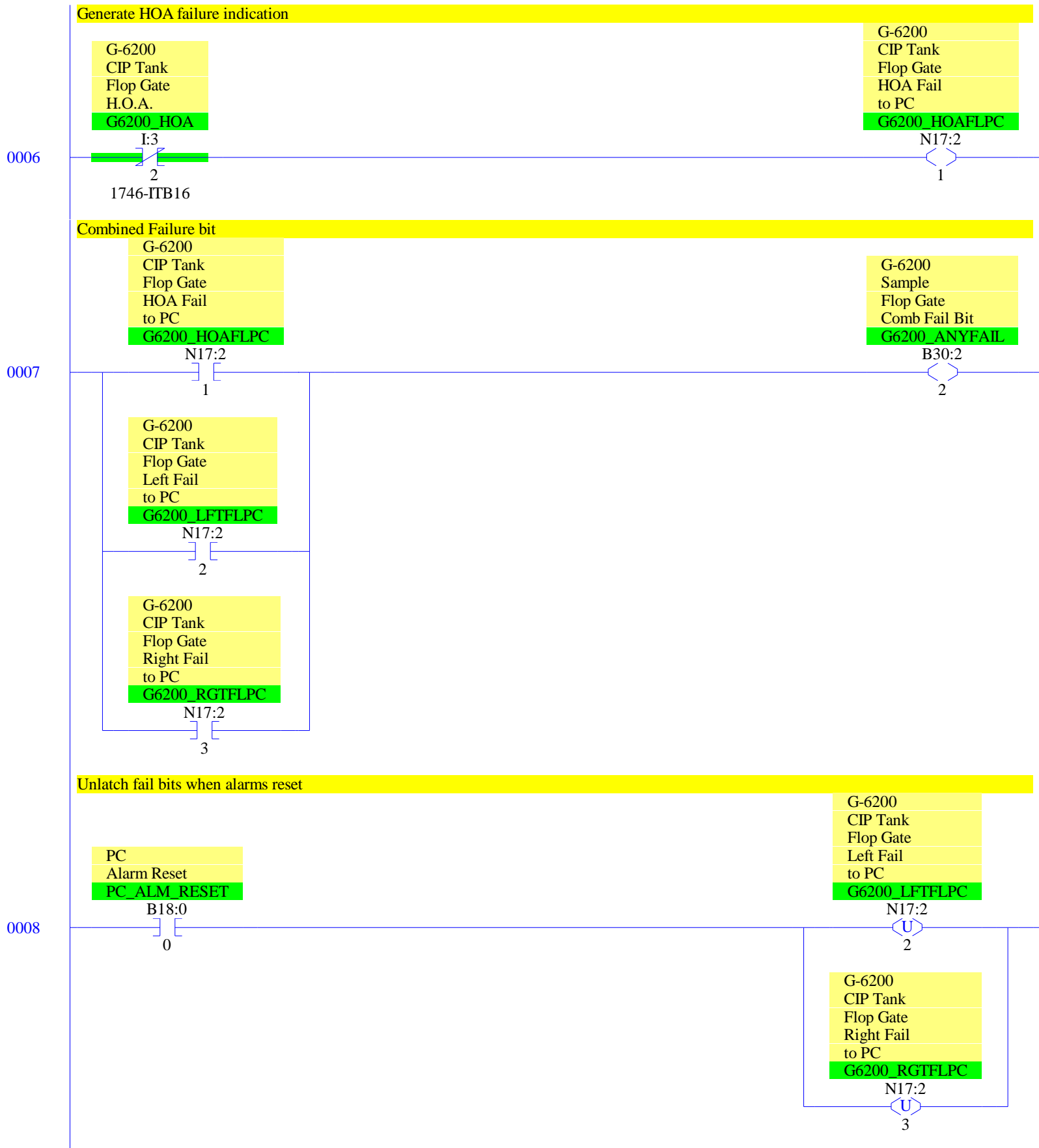
G-6200
CIP Tank
Flop Gate
Right Solenoid
G6200_SOL_RIGHT

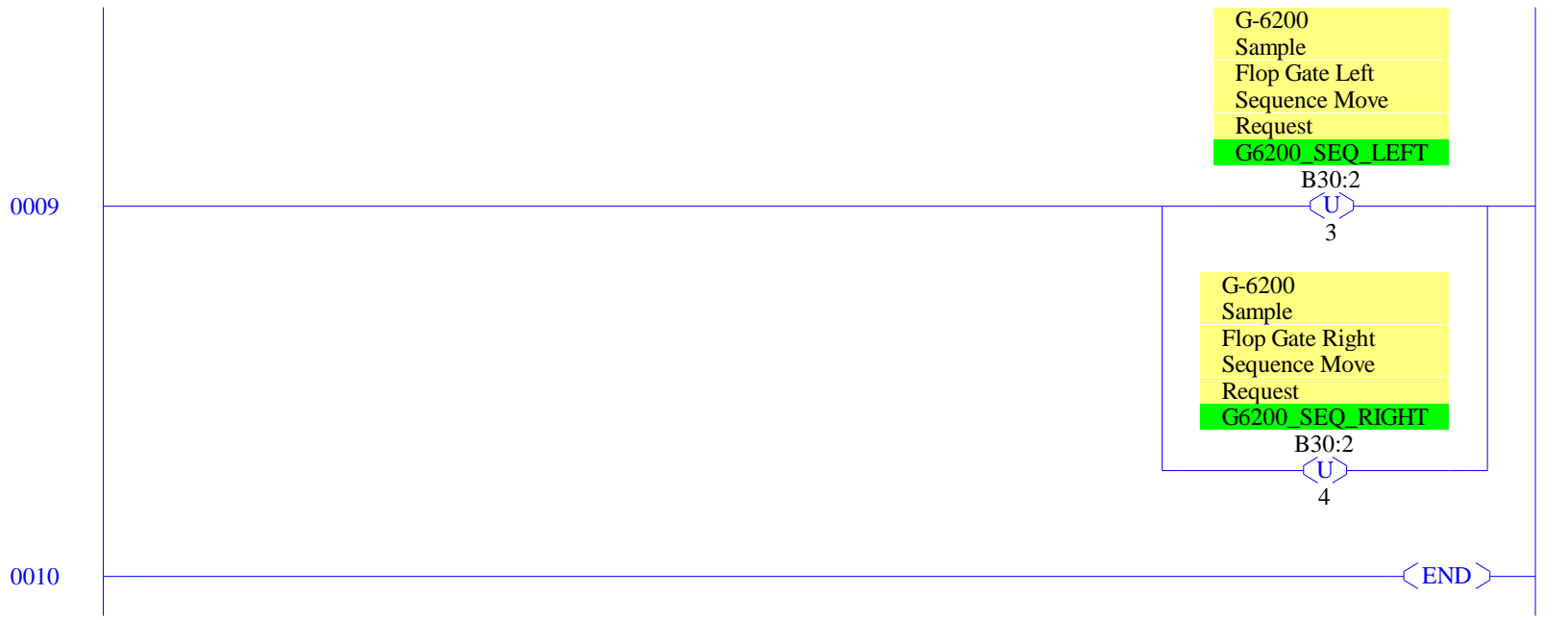
G-6200
CIP Tank
Flop Gate
Right Fail
to PC
G6200_RGTF LPC

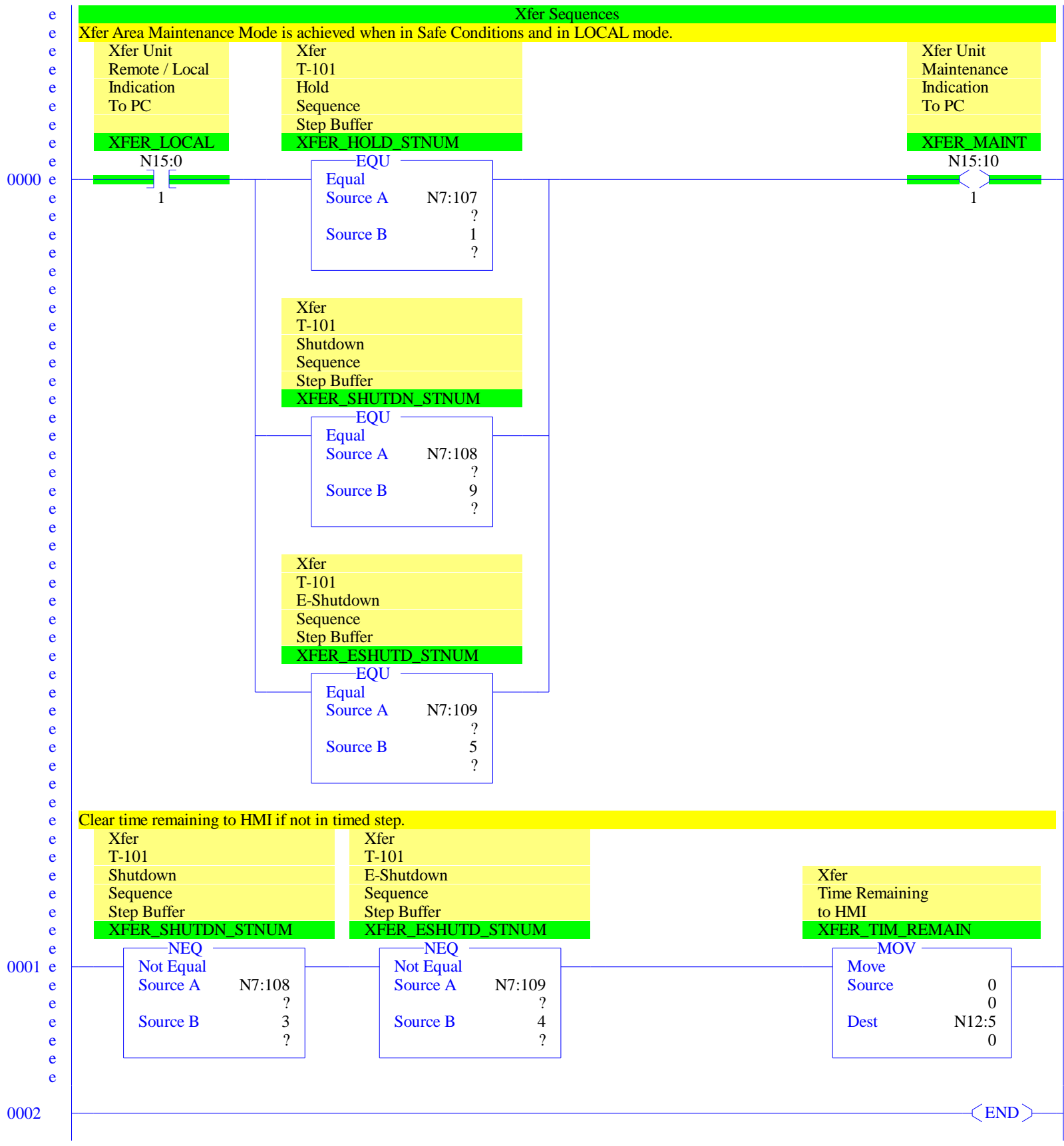
O:2
6
1746-O*16

N17:2
3

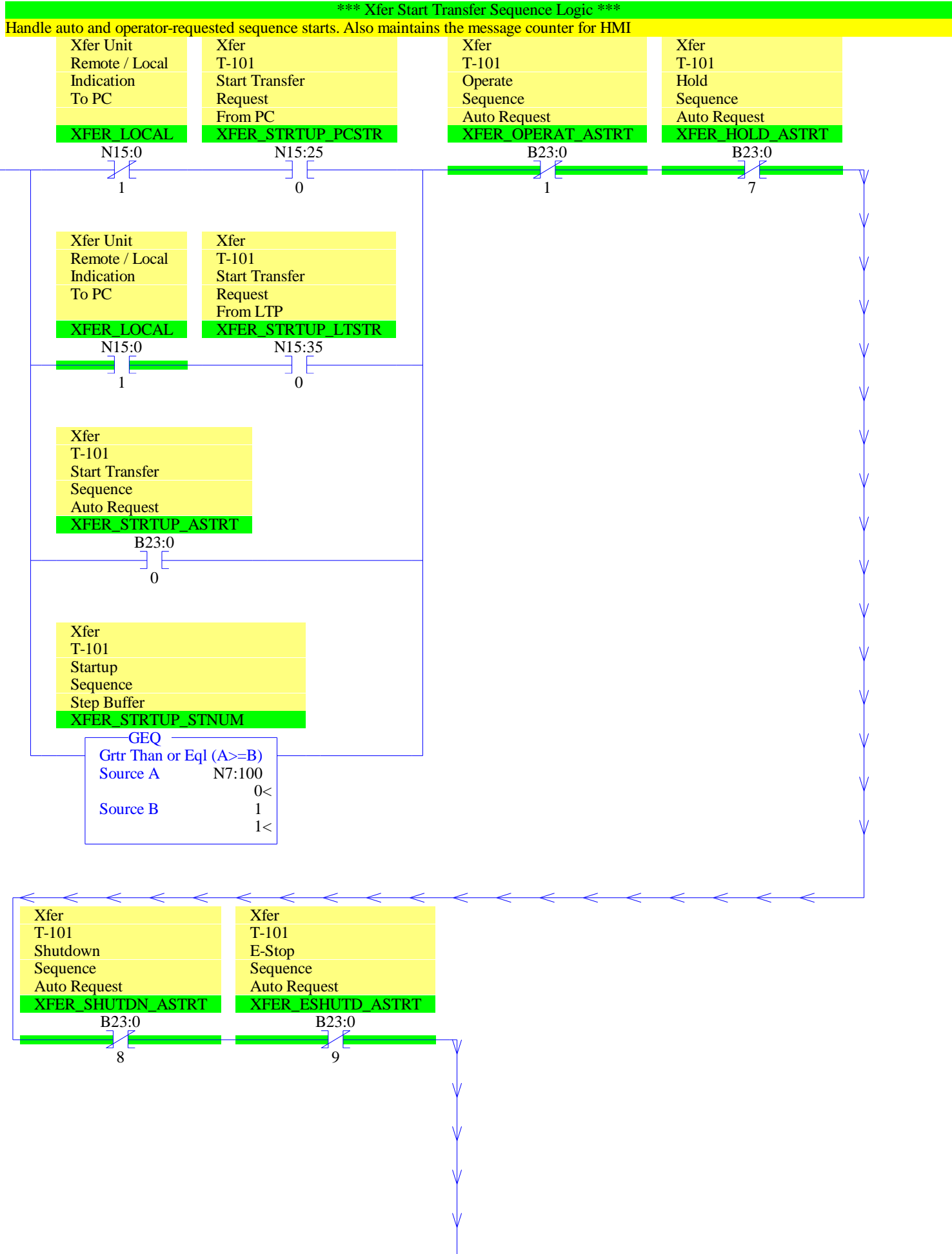
0005

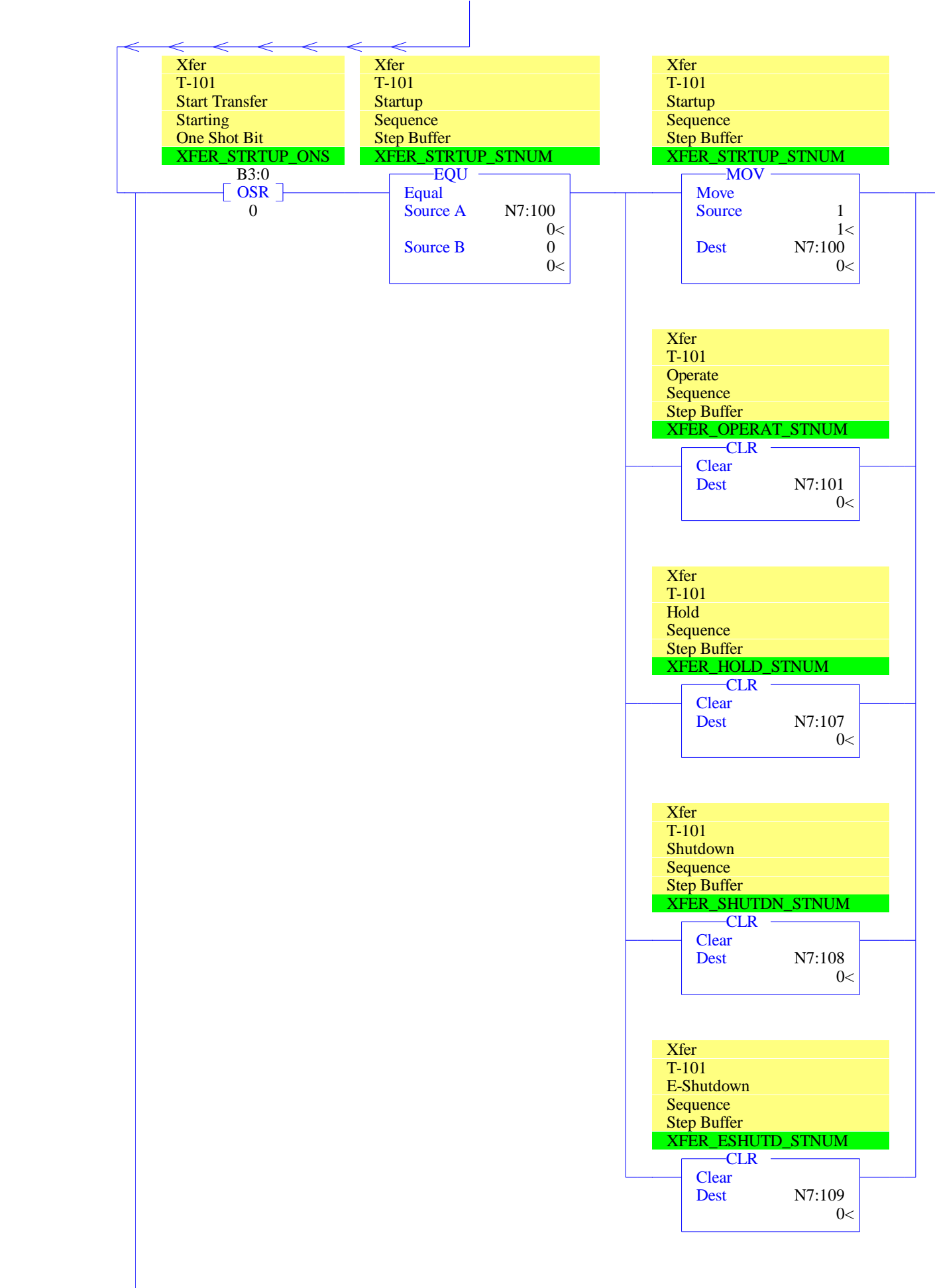


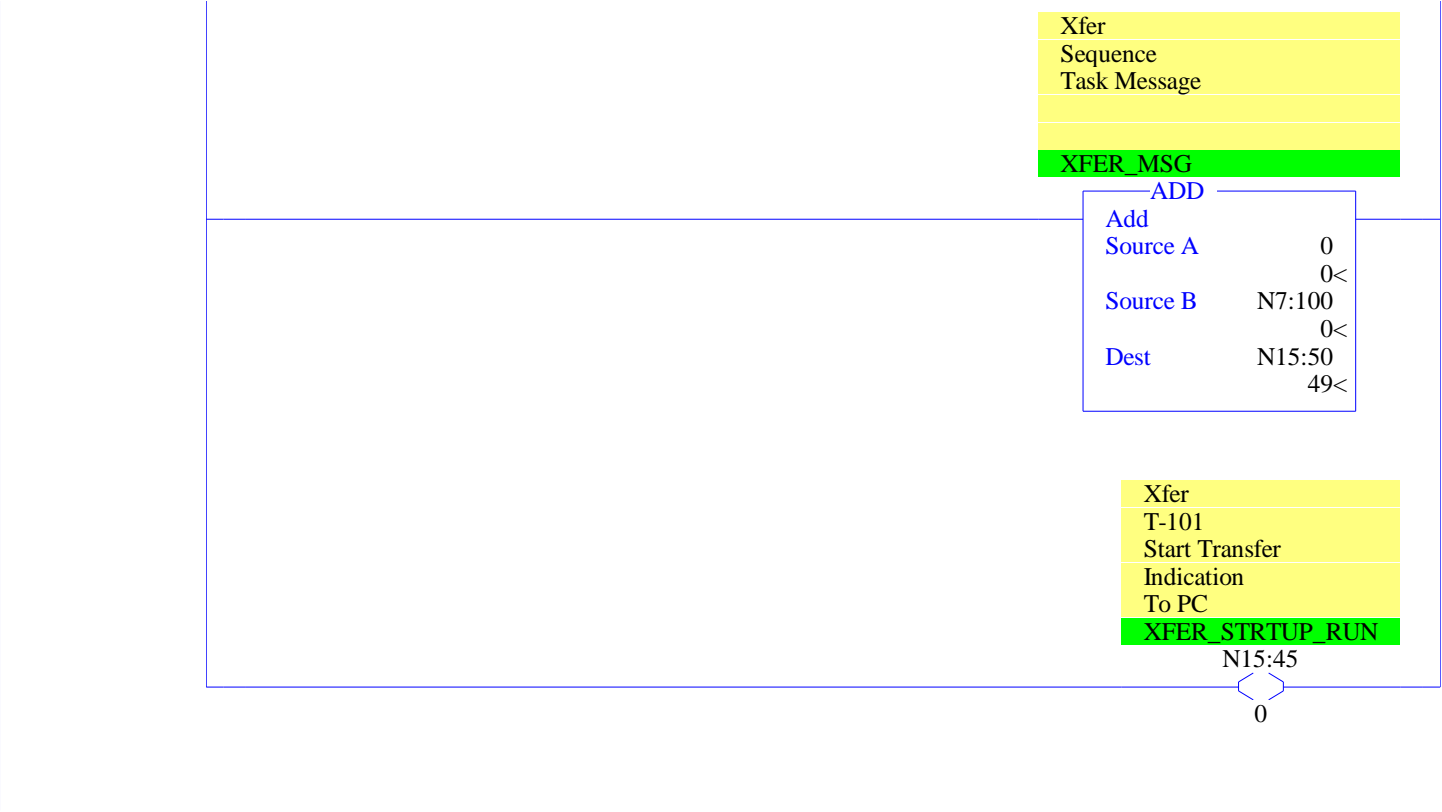




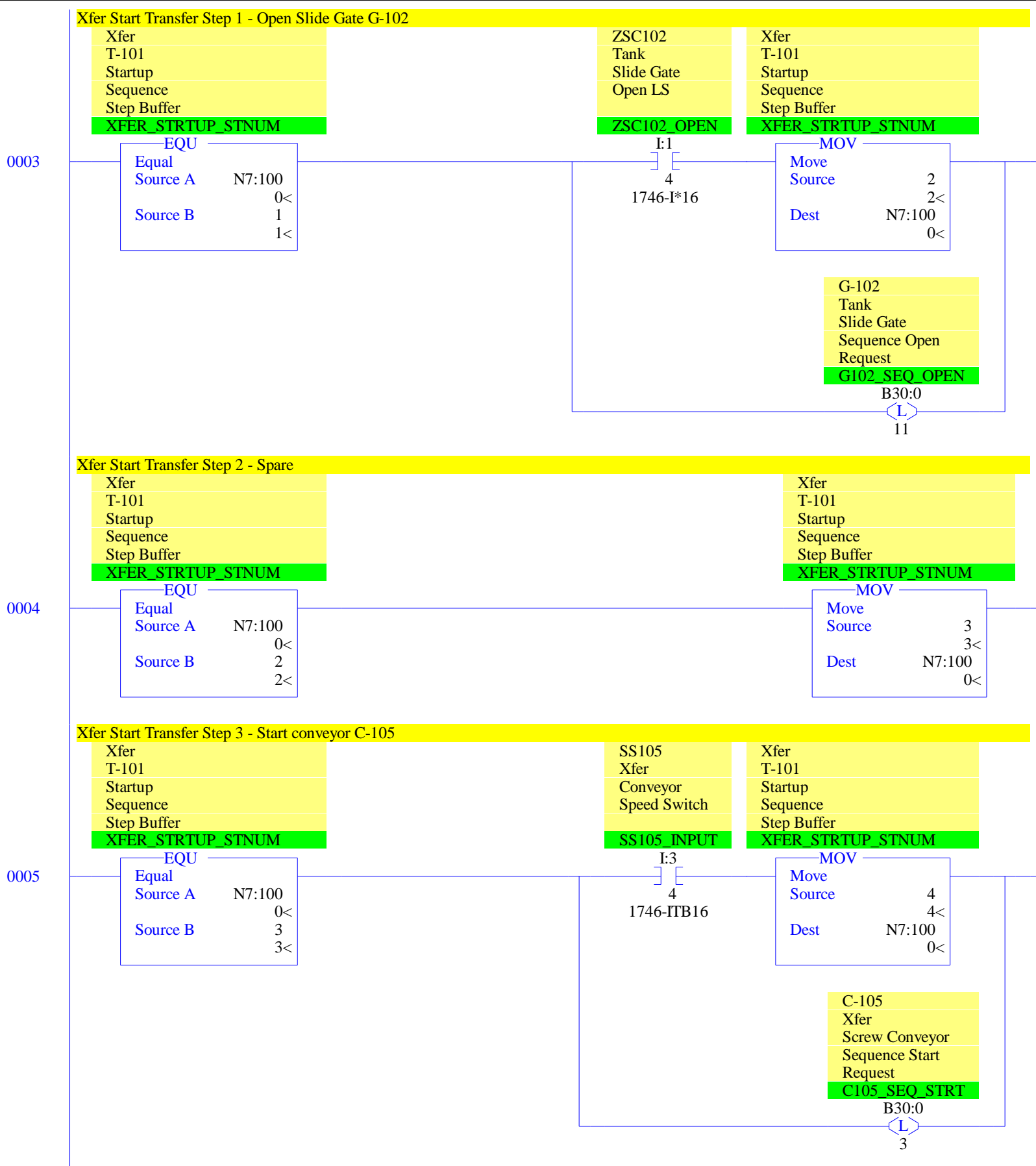
0000

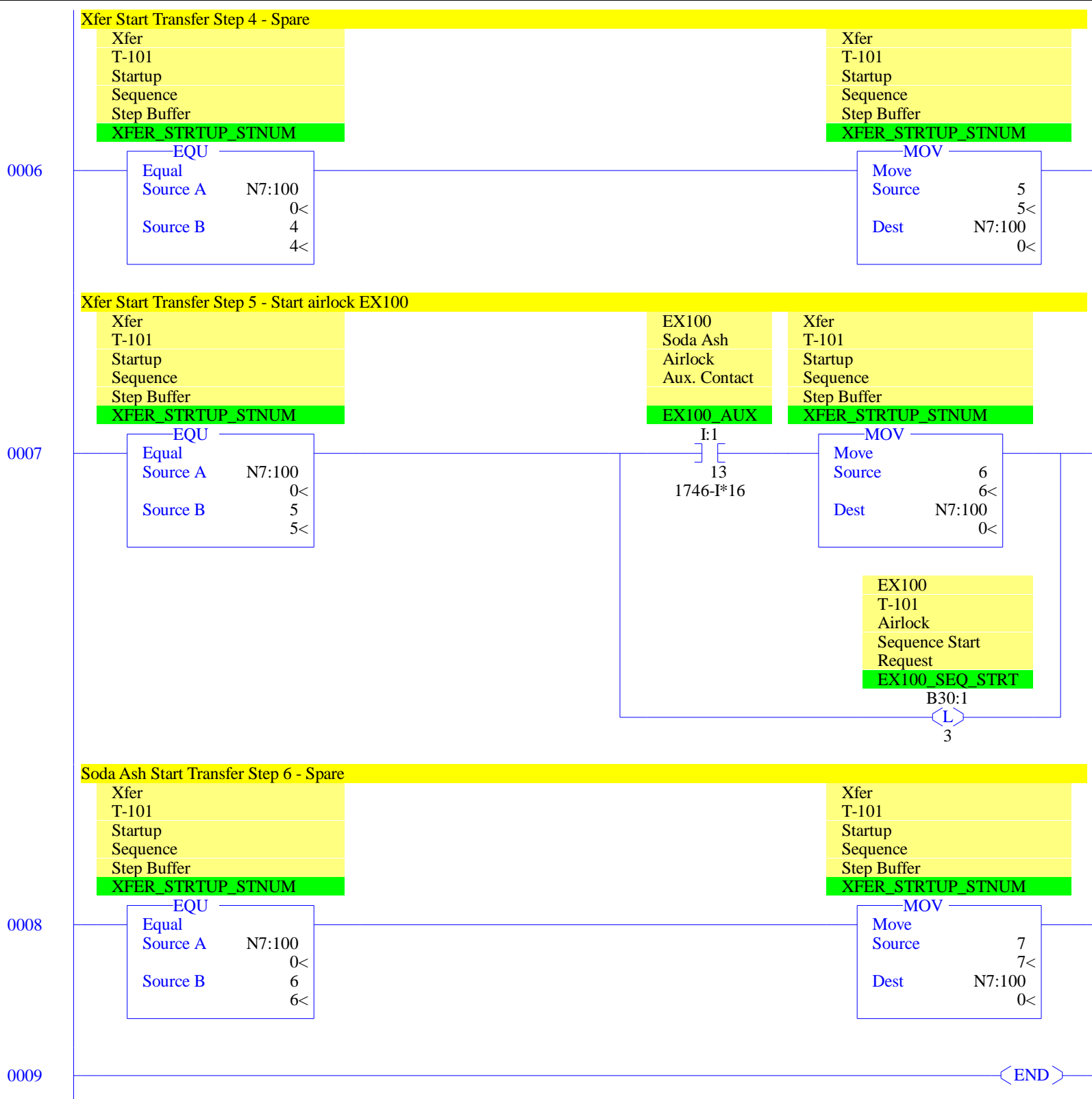




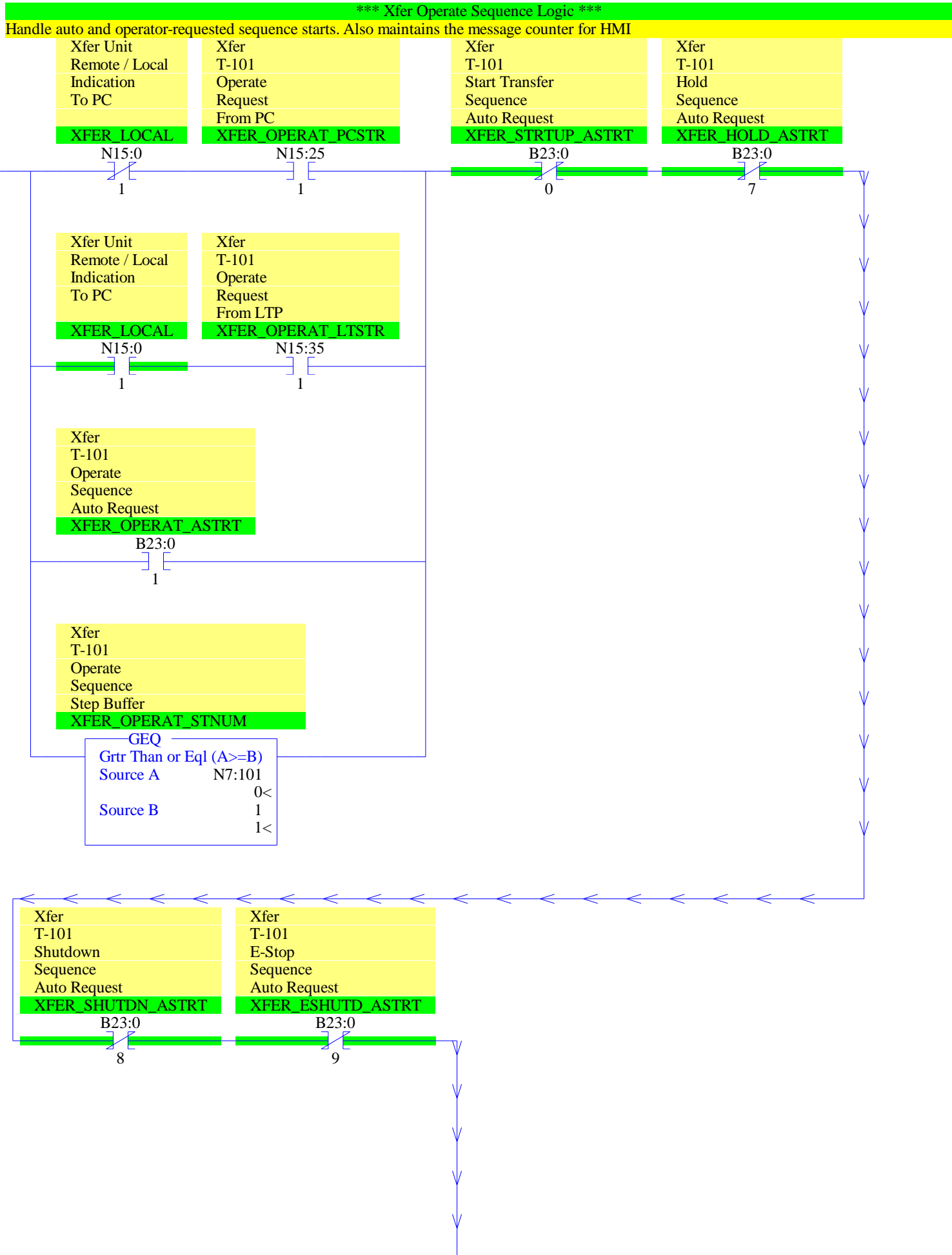


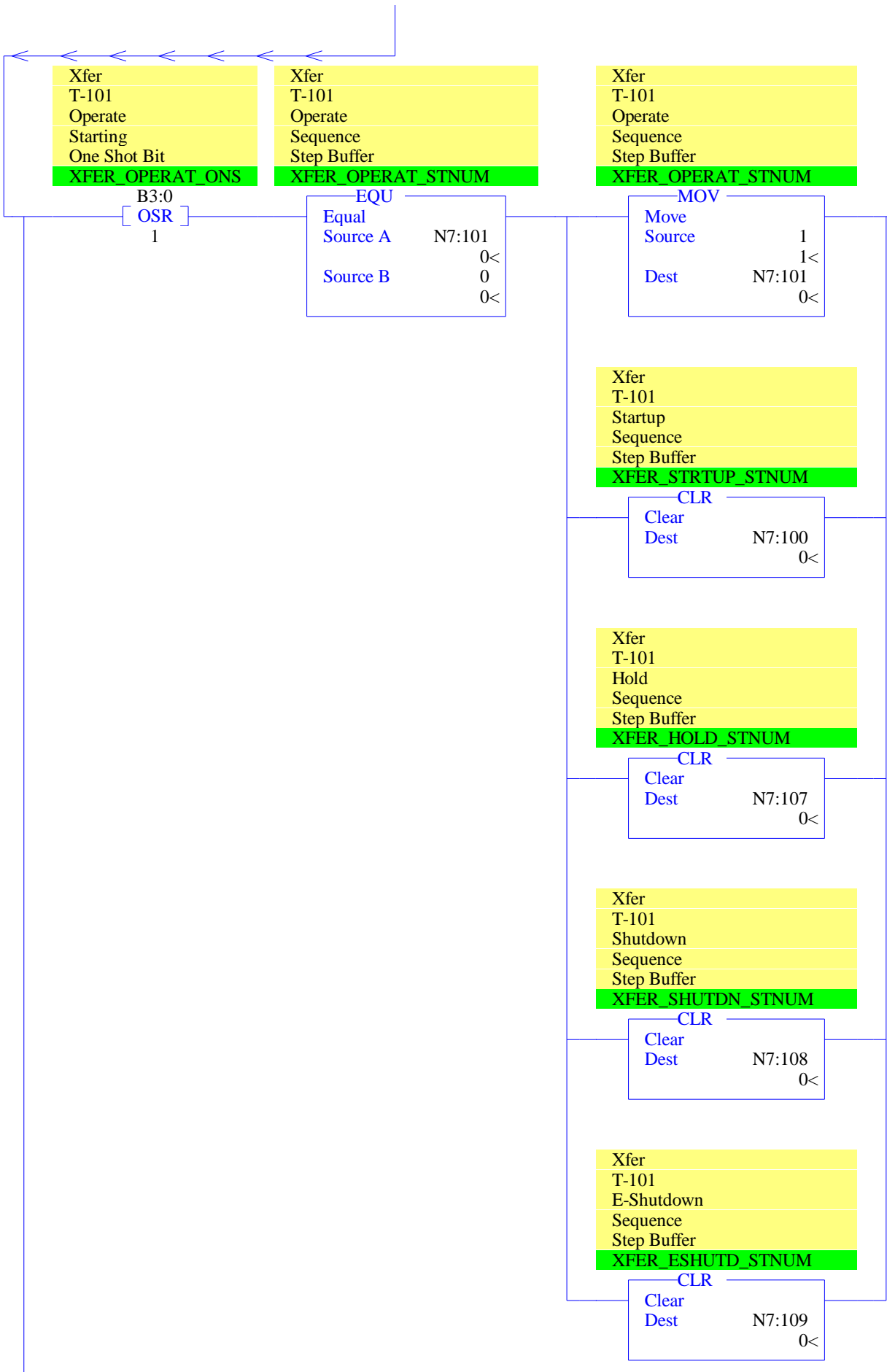


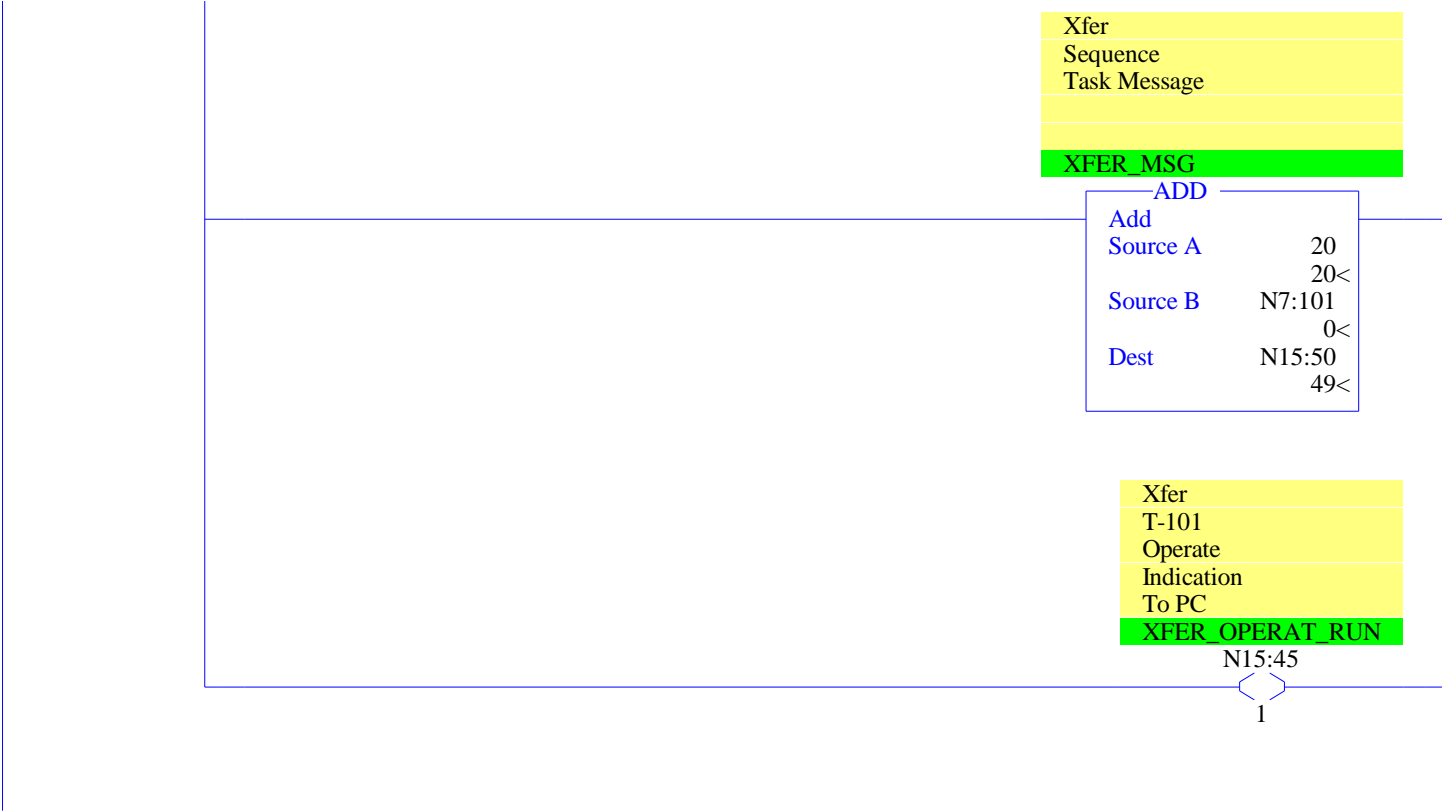


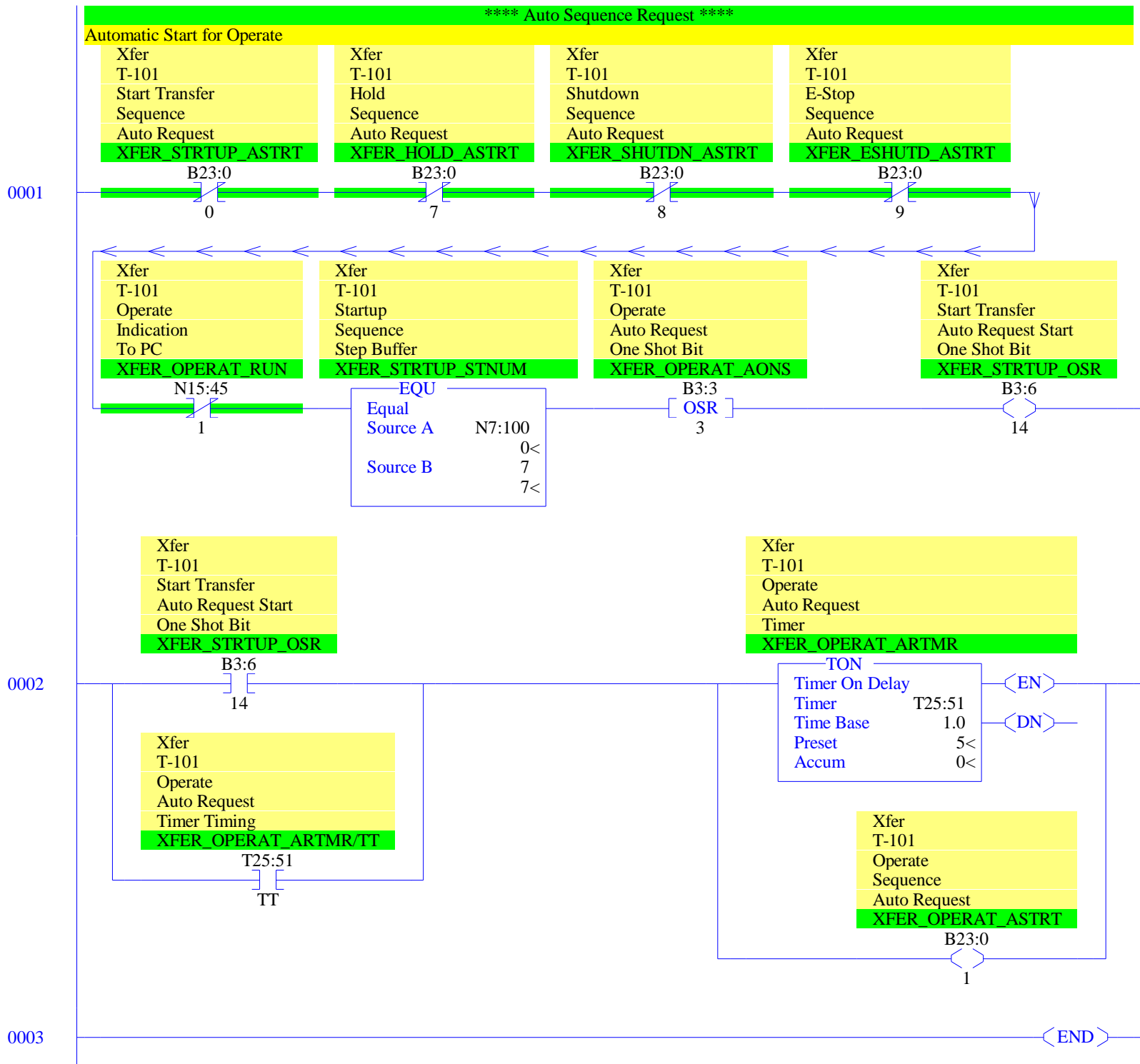


0000

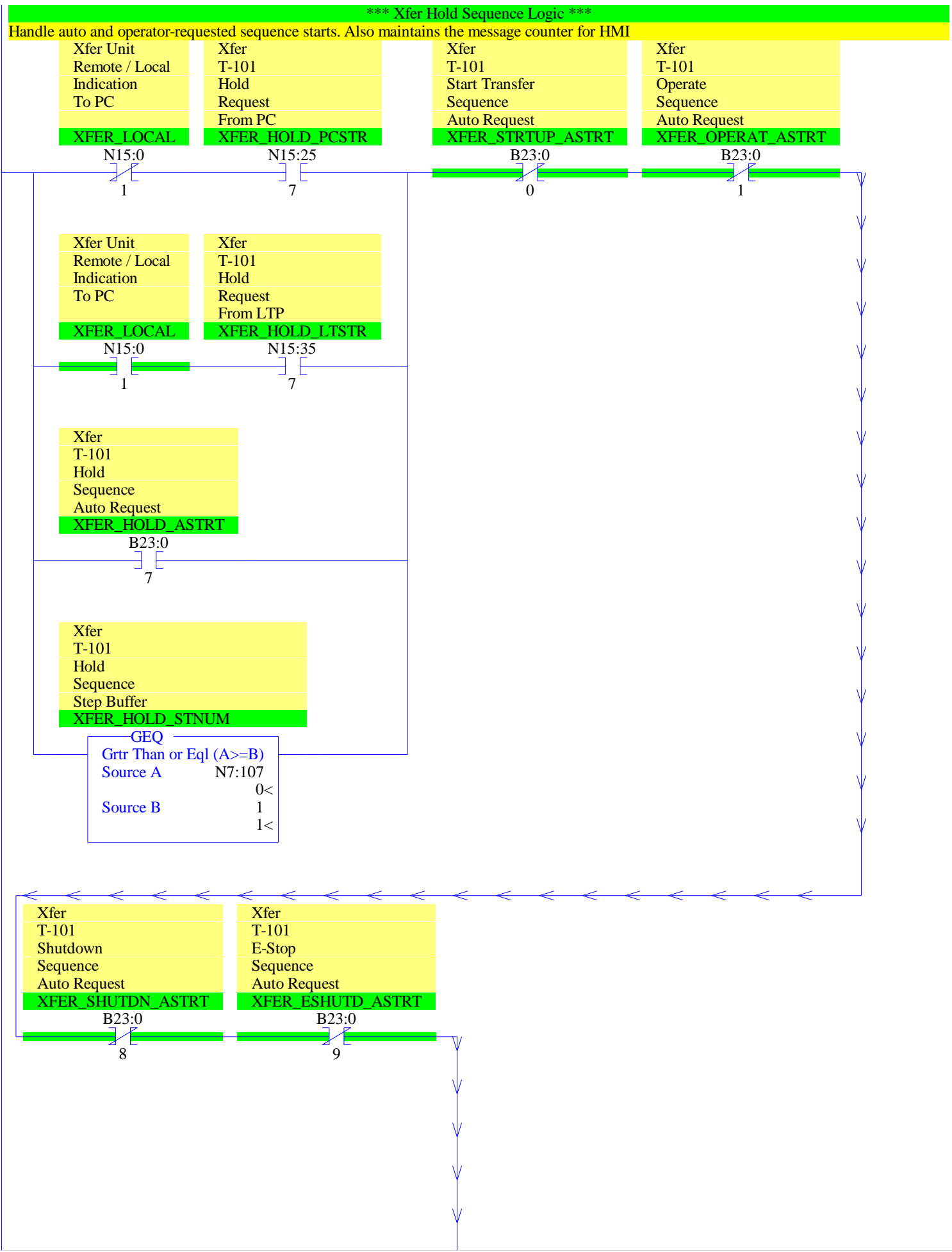


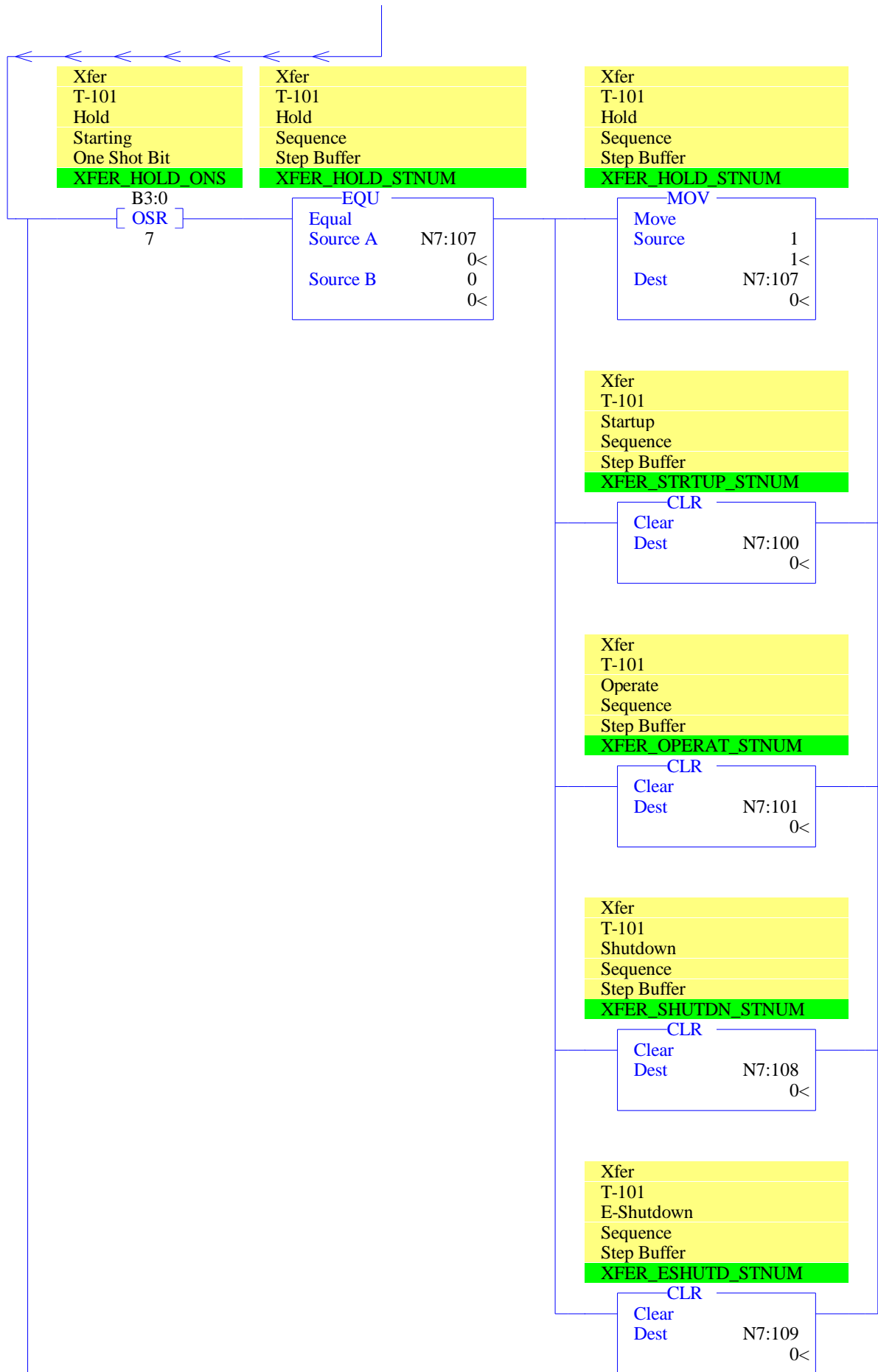






0000





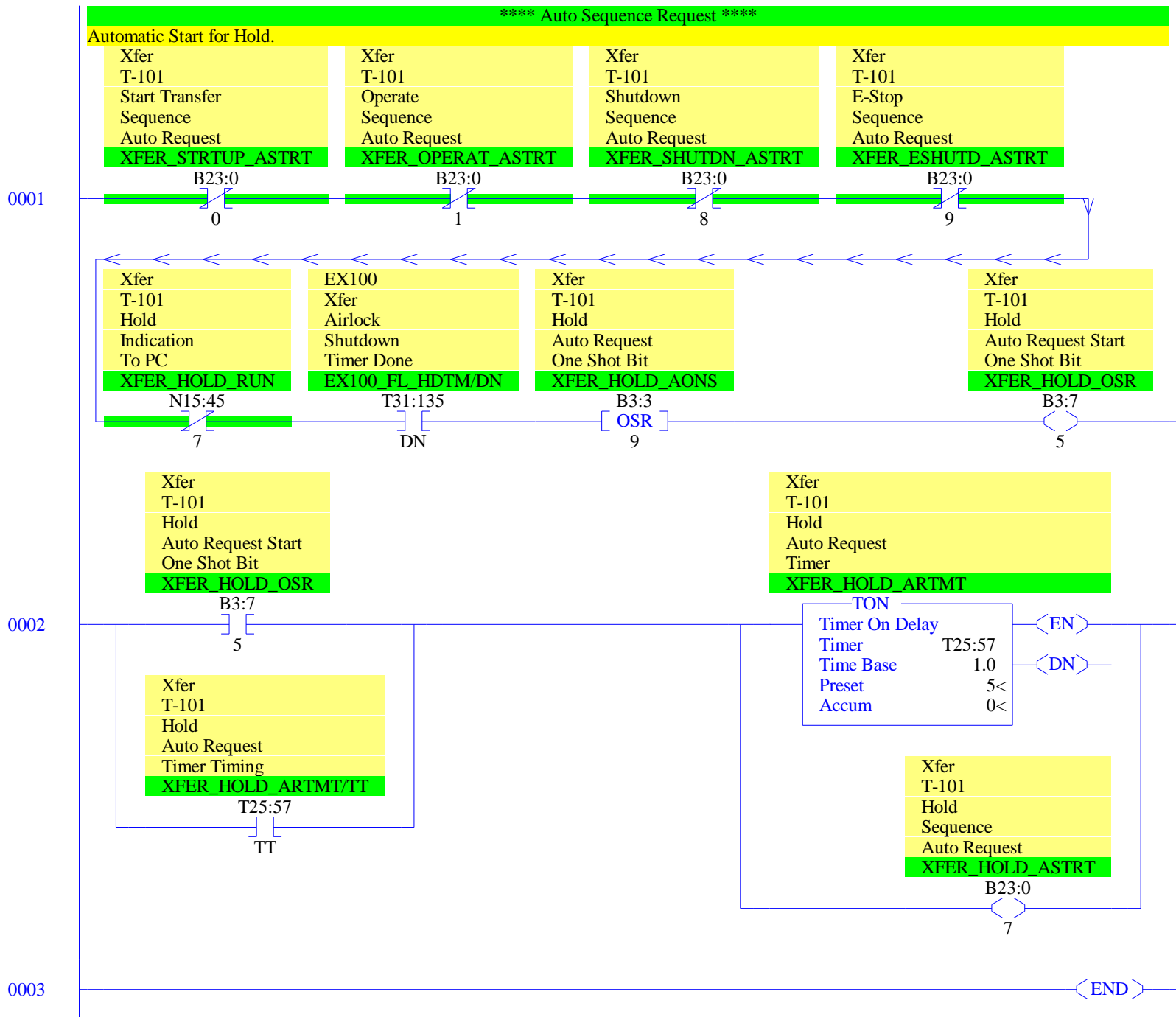
Xfer
Sequence
Task Message
XFER_MSG

ADD	
Add	
Source A	40
	40<
Source B	N7:107
	0<
Dest	N15:50
	49<

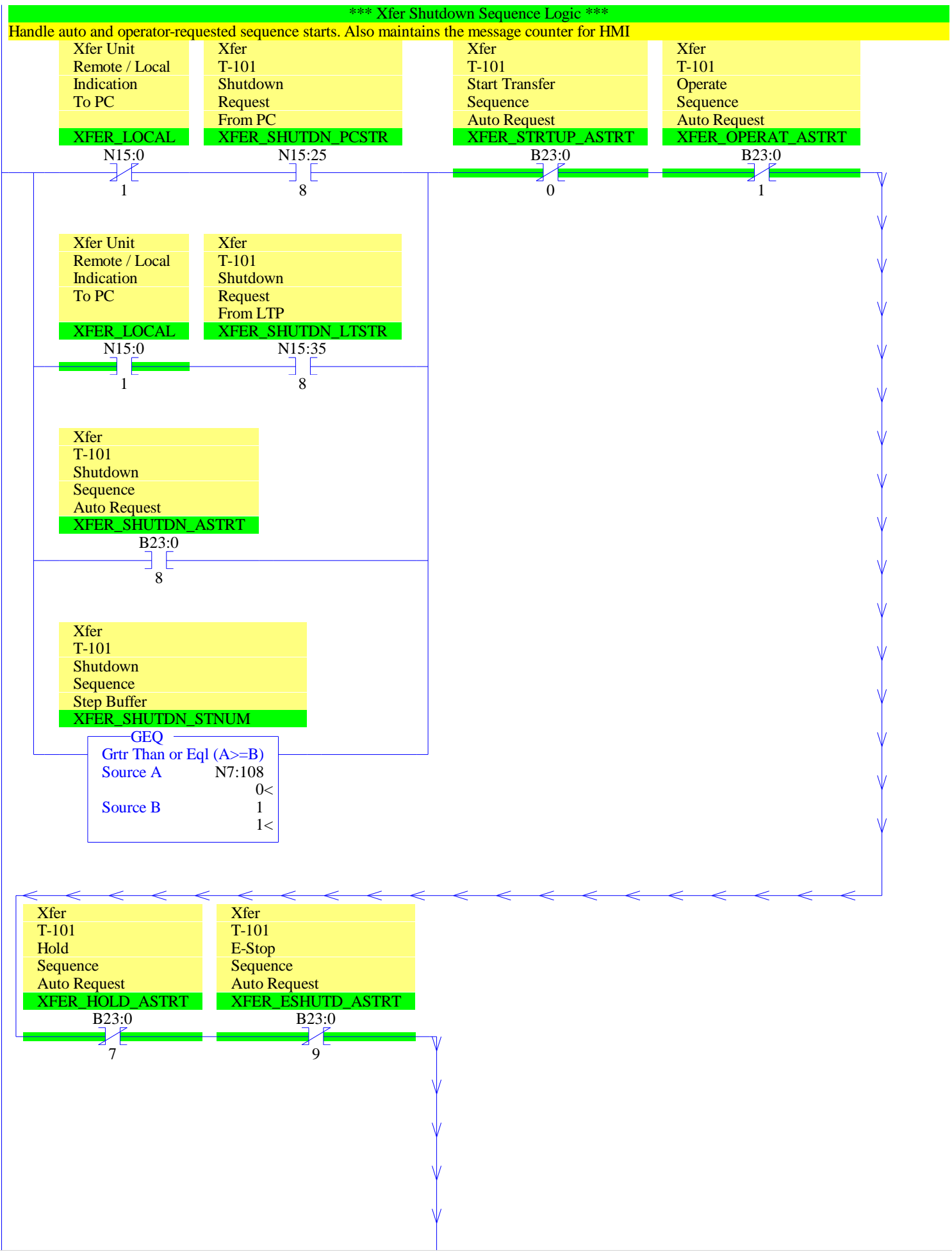
Xfer
T-101
Hold
Indication
To PC
XFER_HOLD_RUN

N15:45

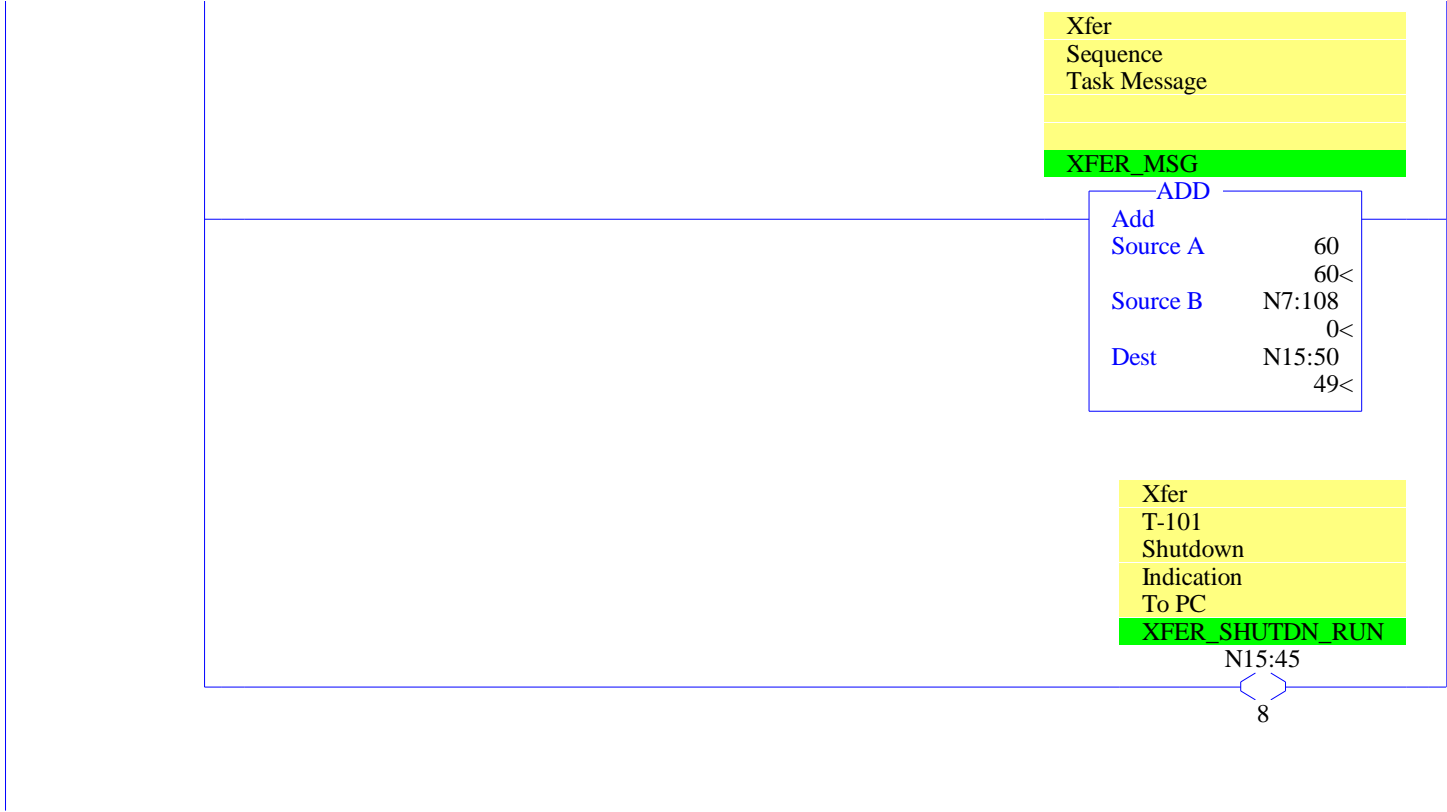




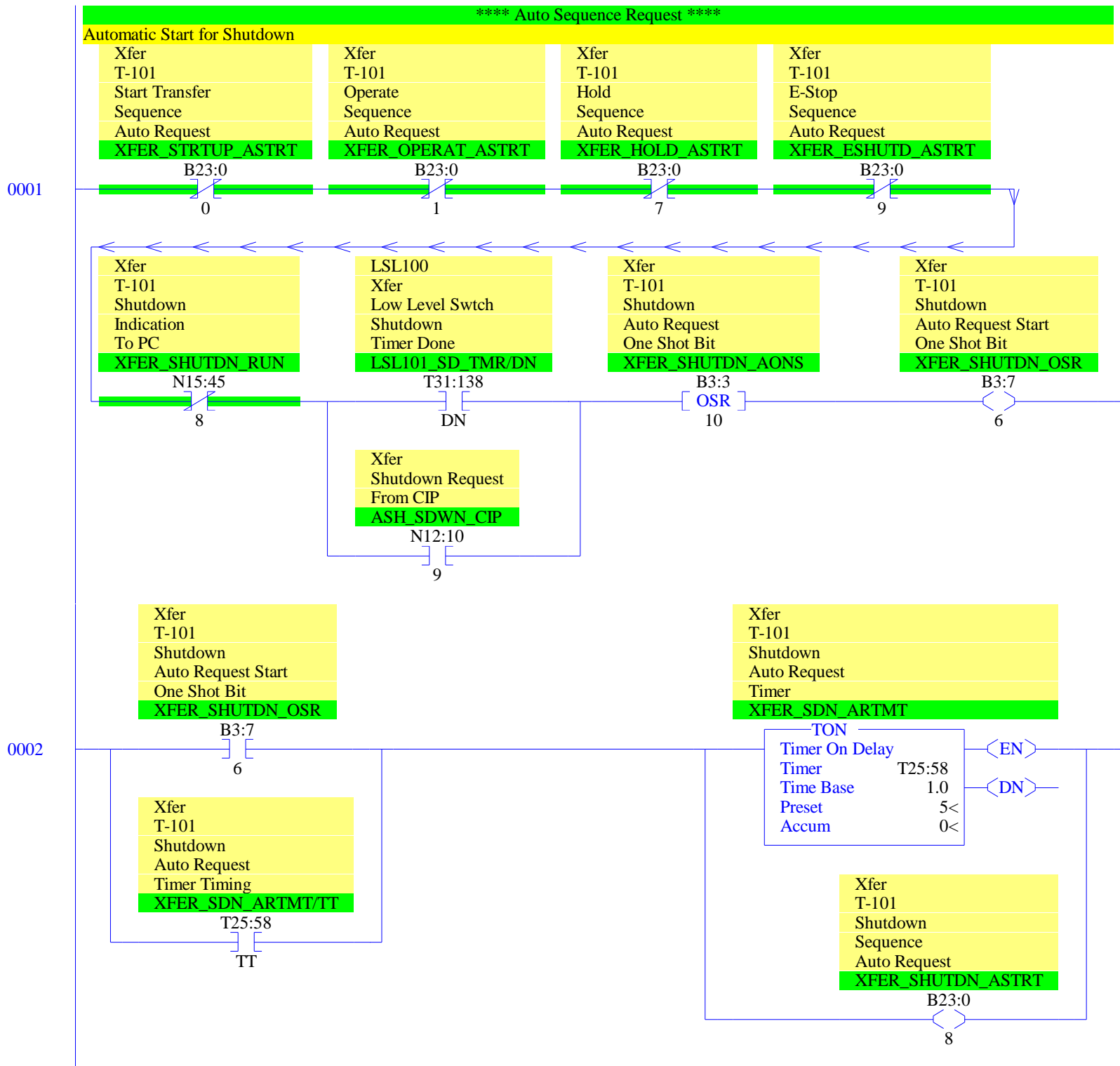
0000

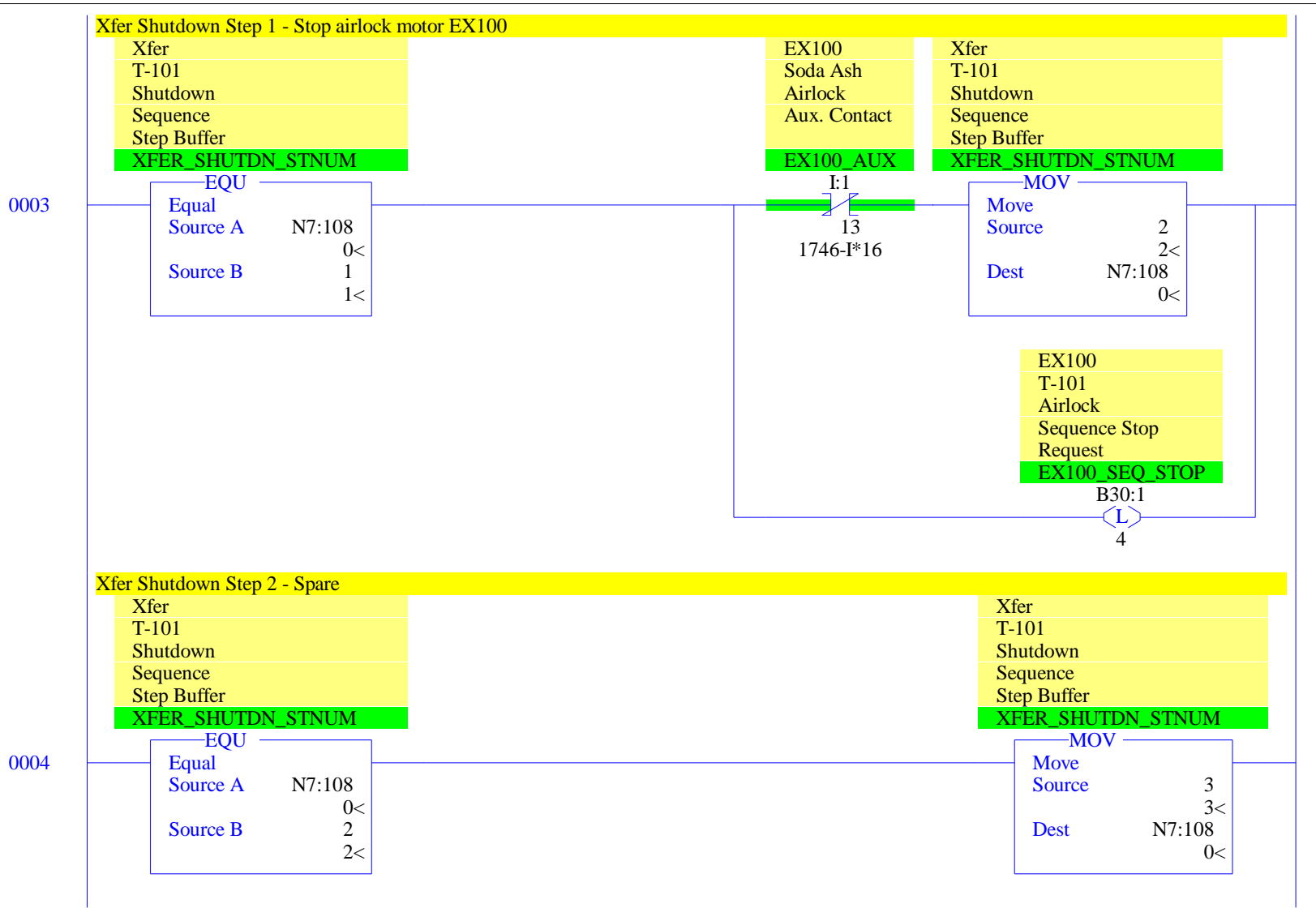






LAD 27 - XFER_SHUTD - Soda Ash Unit Shutdown Sequence --- Total Rungs in File = 12





0005

Xfer Shutdown Step 3 - Wait for material to clear off conveyor.

Xfer
T-101
Shutdown
Sequence
Step Buffer
XFER_SHUTDN_STNUM

Xfer
C-2000
Clean Conveyor
Delay
Timer Done
XFER_CLNCNV_TMR/DN

Xfer
T-101
Shutdown
Sequence
Step Buffer
XFER_SHUTDN_STNUM

EQU
Equal
Source A N7:108
0<
Source B 3
3<

T25:0
DN

MOV
Move
Source 4
4<
Dest N7:108
0<

Xfer
C-2000
Clean Conveyor
Delay
Timer
XFER_CLNCNV_TMR

TON
Timer On Delay
Timer T25:0
Time Base 1.0
Preset 30<
Accum 0<
<EN>
<DN>

Xfer
Time Remaining
to HMI
XFER_TIM_REMAIN

SUB
Subtract
Source A T25:0.PRE
30<
Source B T25:0.ACC
0<
Dest N12:5
0<

0006

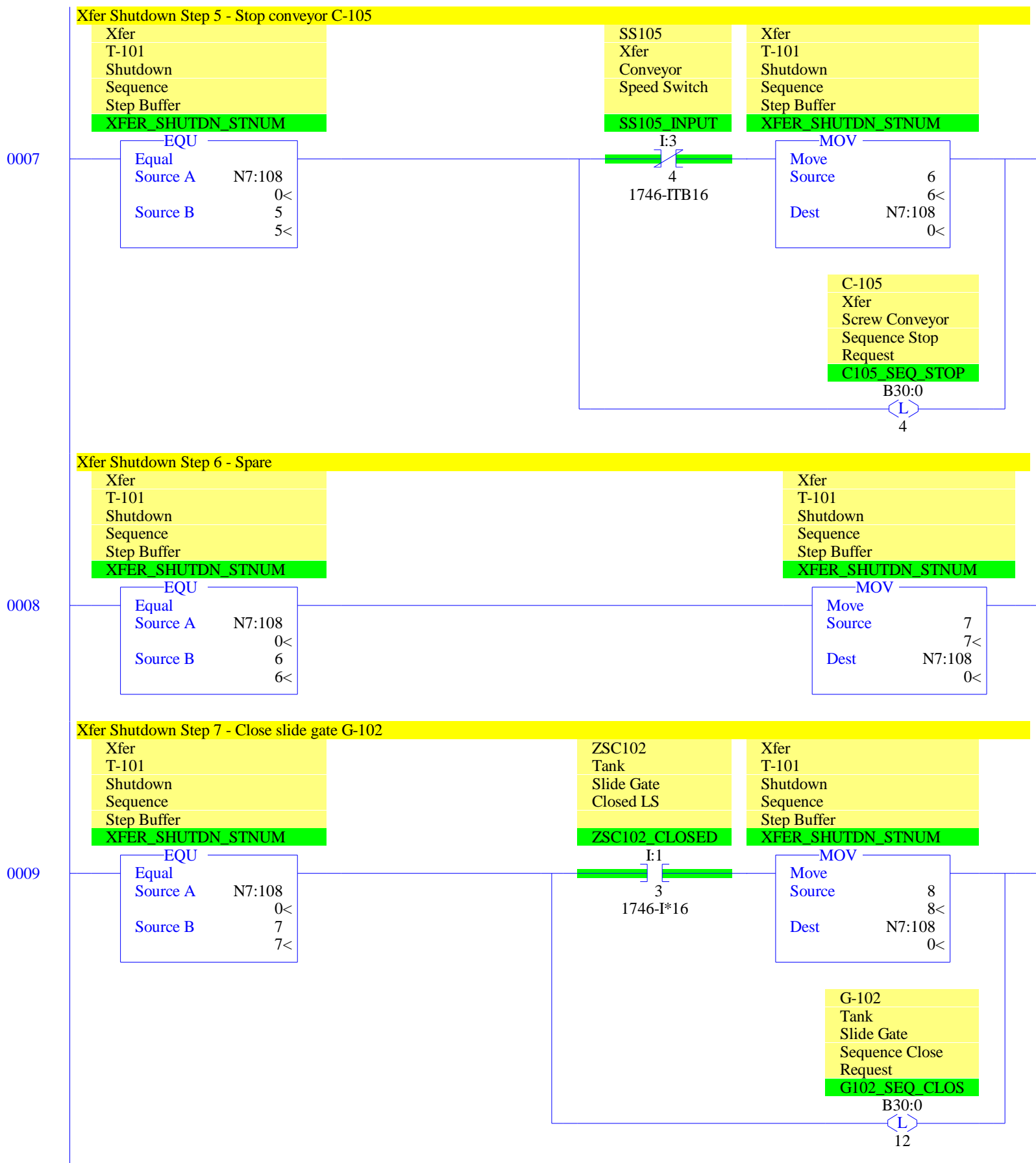
Xfer Shutdown Step 4 - Spare

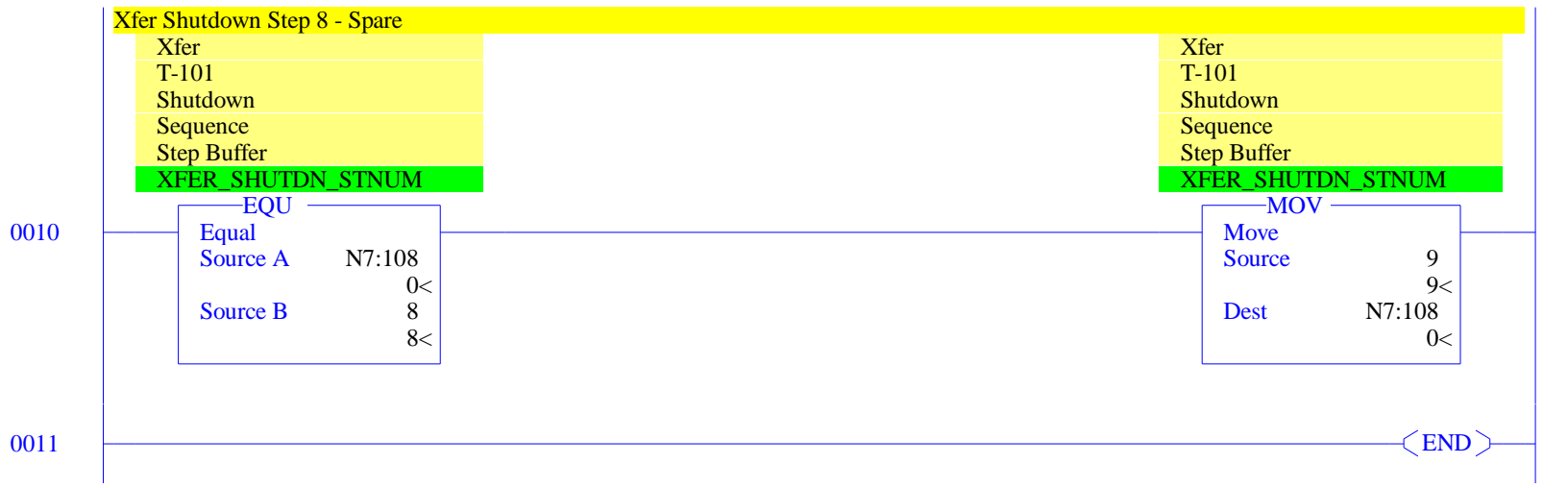
Xfer
T-101
Shutdown
Sequence
Step Buffer
XFER_SHUTDN_STNUM

Xfer
T-101
Shutdown
Sequence
Step Buffer
XFER_SHUTDN_STNUM

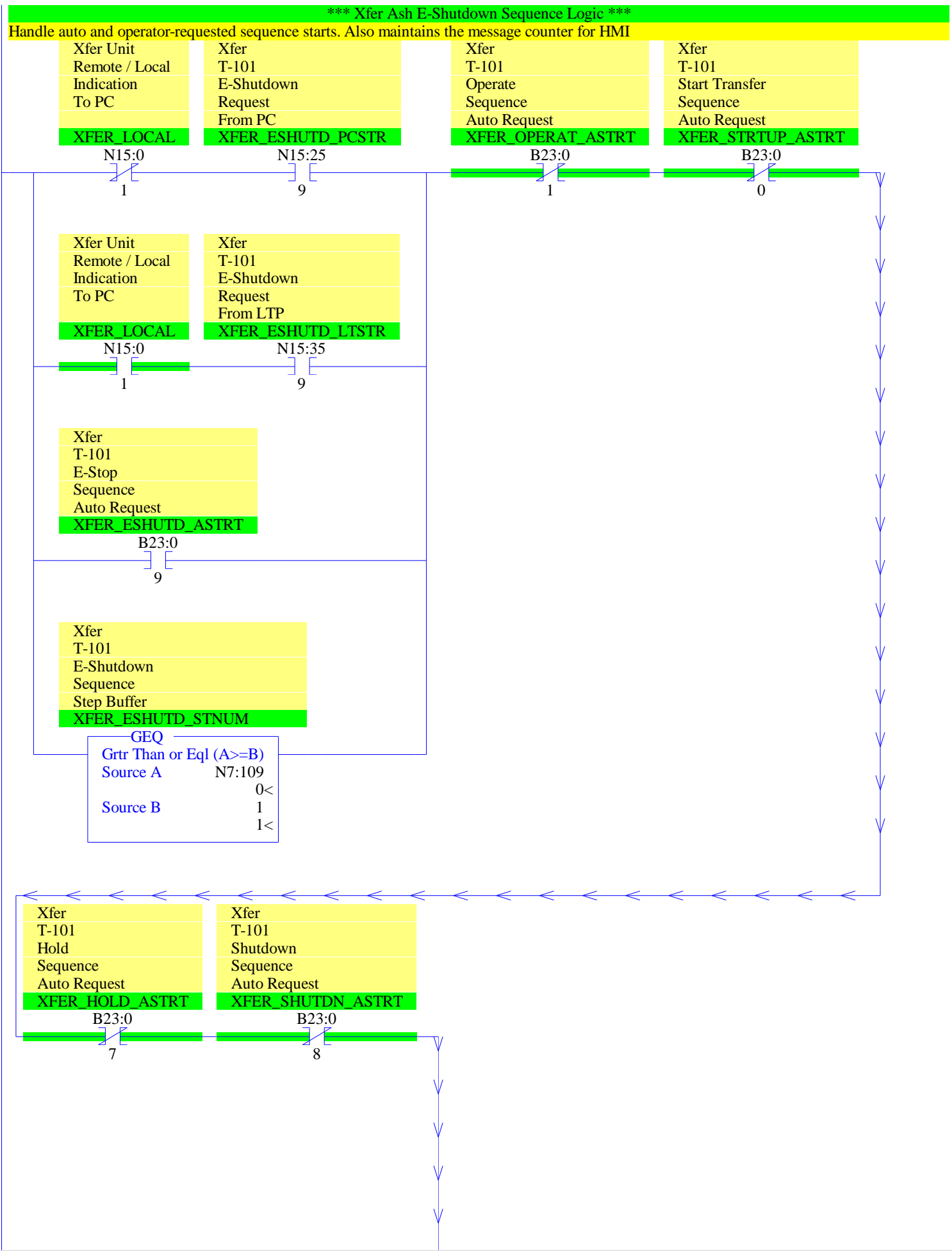
EQU
Equal
Source A N7:108
0<
Source B 4
4<

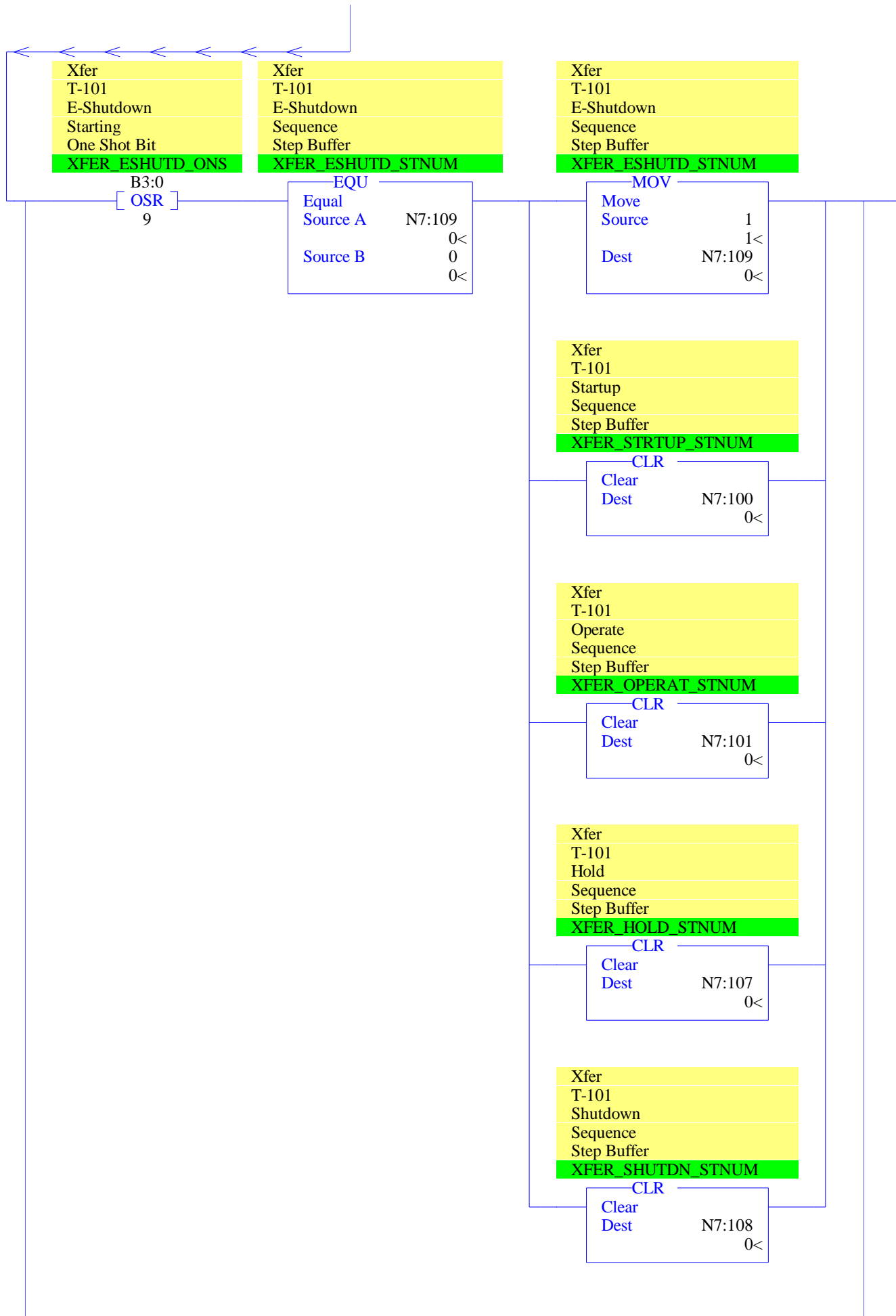
MOV
Move
Source 5
5<
Dest N7:108
0<





0000





Xfer
Sequence
Task Message
XFER_MSG

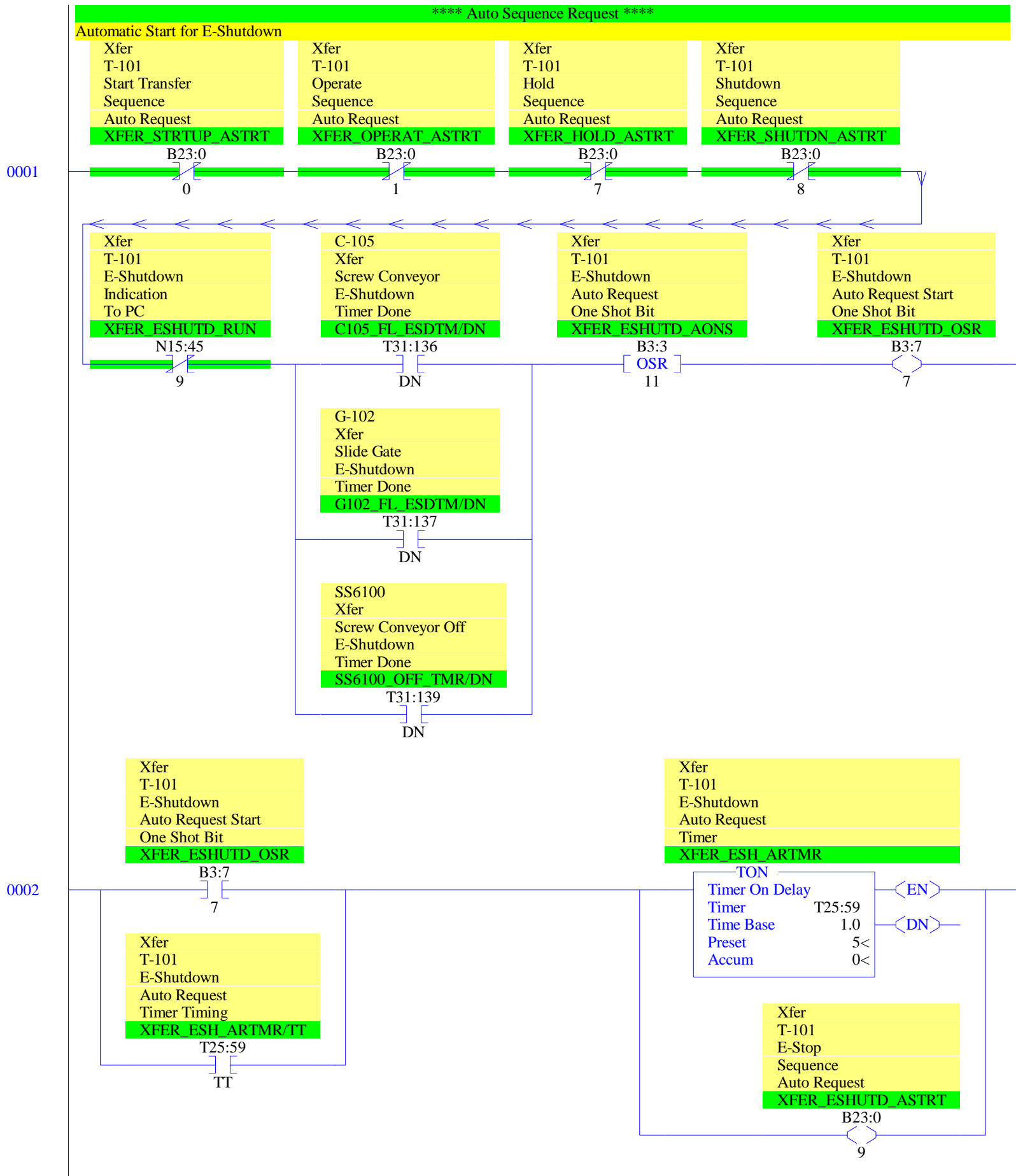
ADD	
Add	
Source A	80
	80<
Source B	N7:109
	0<
Dest	N15:50
	49<

Xfer
T-101
E-Shutdown
Indication
To PC
XFER_ESHUTD_RUN

N15:45



9



0003

Xfer E-Shutdown Step 1 - Stop all motors

Xfer

T-101

E-Shutdown

Sequence

Step Buffer

XFER_ESHUTD_STNUM

EQU

Equal

Source A N7:109

0<

Source B

1

1<

Xfer

T-101

E-Shutdown

Sequence

Step Buffer

XFER_ESHUTD_STNUM

MOV

Move

Source

2

2<

Dest

N7:109

0<

C-105

Xfer

Screw Conveyor

Sequence Stop

Request

C105_SEQ_STOP

B30:0

L

4

EX100

T-101

Airlock

Sequence Stop

Request

EX100_SEQ_STOP

B30:1

L

4

0004

Xfer E-Shutdown Step 2 - Spare

Xfer

T-101

E-Shutdown

Sequence

Step Buffer

XFER_ESHUTD_STNUM

EQU

Equal

Source A N7:109

0<

Source B

2

2<

Xfer

T-101

E-Shutdown

Sequence

Step Buffer

XFER_ESHUTD_STNUM

MOV

Move

Source

3

3<

Dest

N7:109

0<

0005

Xfer E-Shutdown Step 3 - Close slide gate

Xfer
T-101
E-Shutdown
Sequence
Step Buffer

XFER_ESHUTD_STNUM

EQU

Equal
Source A N7:109
0<
Source B 3
3<

Xfer
T-101
E-Shutdown
Sequence
Step Buffer

XFER_ESHUTD_STNUM

MOV

Move
Source 4
4<
Dest N7:109
0<

G-102
Tank
Slide Gate
Sequence Close
Request

G102_SEQ_CLOS

B30:0

L

12

0006

Xfer E-Shutdown Step 4 - Delay 15 seconds to allow devices to turn off

Xfer
T-101
E-Shutdown
Sequence
Step Buffer

XFER_ESHUTD_STNUM

EQU

Equal
Source A N7:109
0<
Source B 4
4<

Xfer
Emergency
Shutdown
In Progress
Timer Done

XFER_ESHTDN_TMR/DN

T25:9

DN

Xfer
T-101
E-Shutdown
Sequence
Step Buffer

XFER_ESHUTD_STNUM

MOV

Move
Source 5
5<
Dest N7:109
0<

Xfer
Emergency
Shutdown
In Progress
Timer

XFER_ESHTDN_TMR

TON

Timer On Delay
Timer T25:9
Time Base 1.0
Preset 15<
Accum 0<

<EN>

<DN>

Xfer
Time Remaining
to HMI

XFER_TIM_REMAIN

SUB

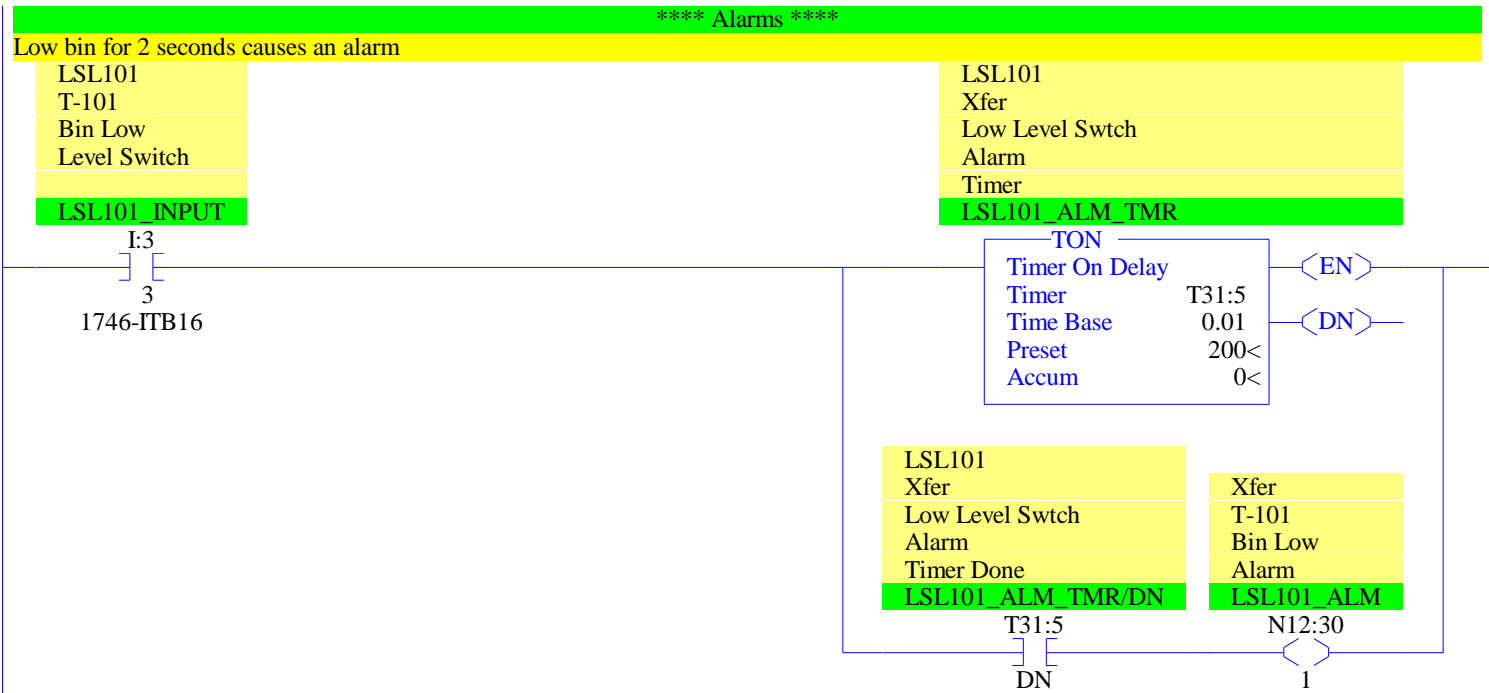
Subtract
Source A T25:9.PRE
15<
Source B T25:9.ACC
0<
Dest N12:5
0<

0007

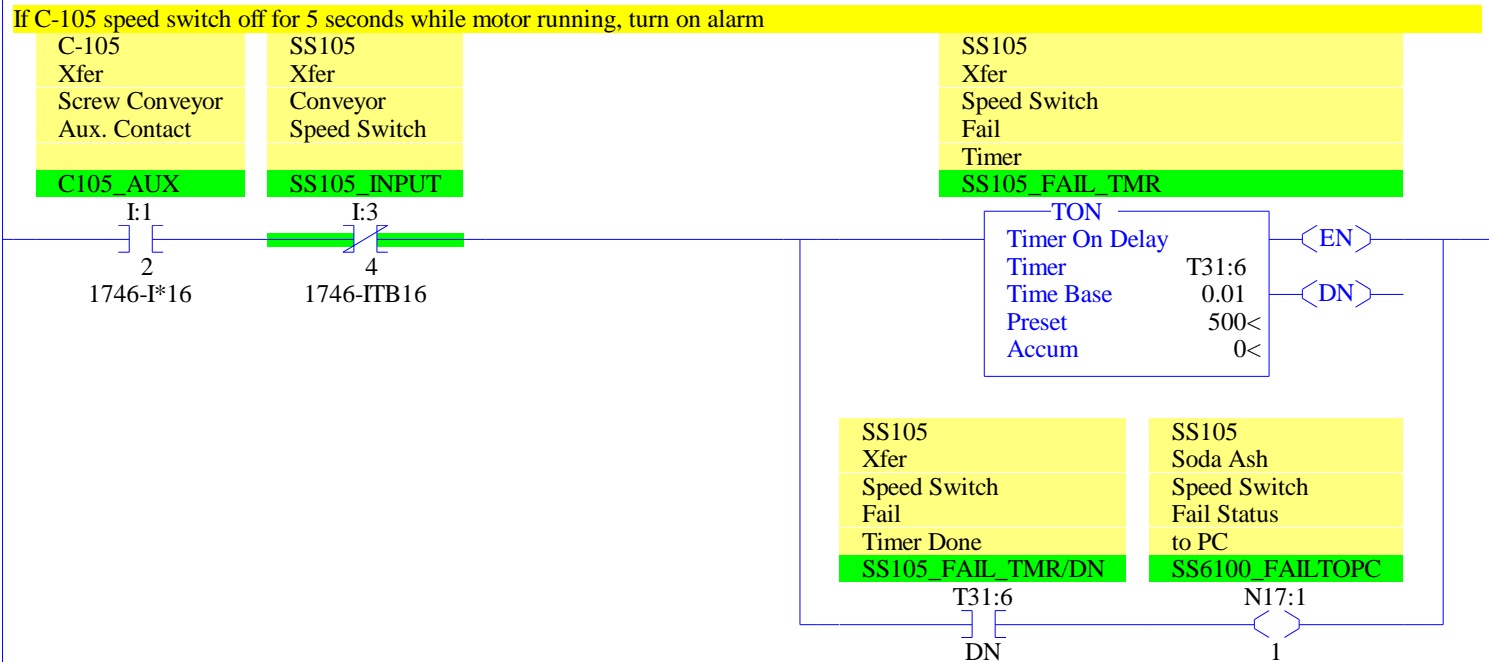
⟨END⟩



0004

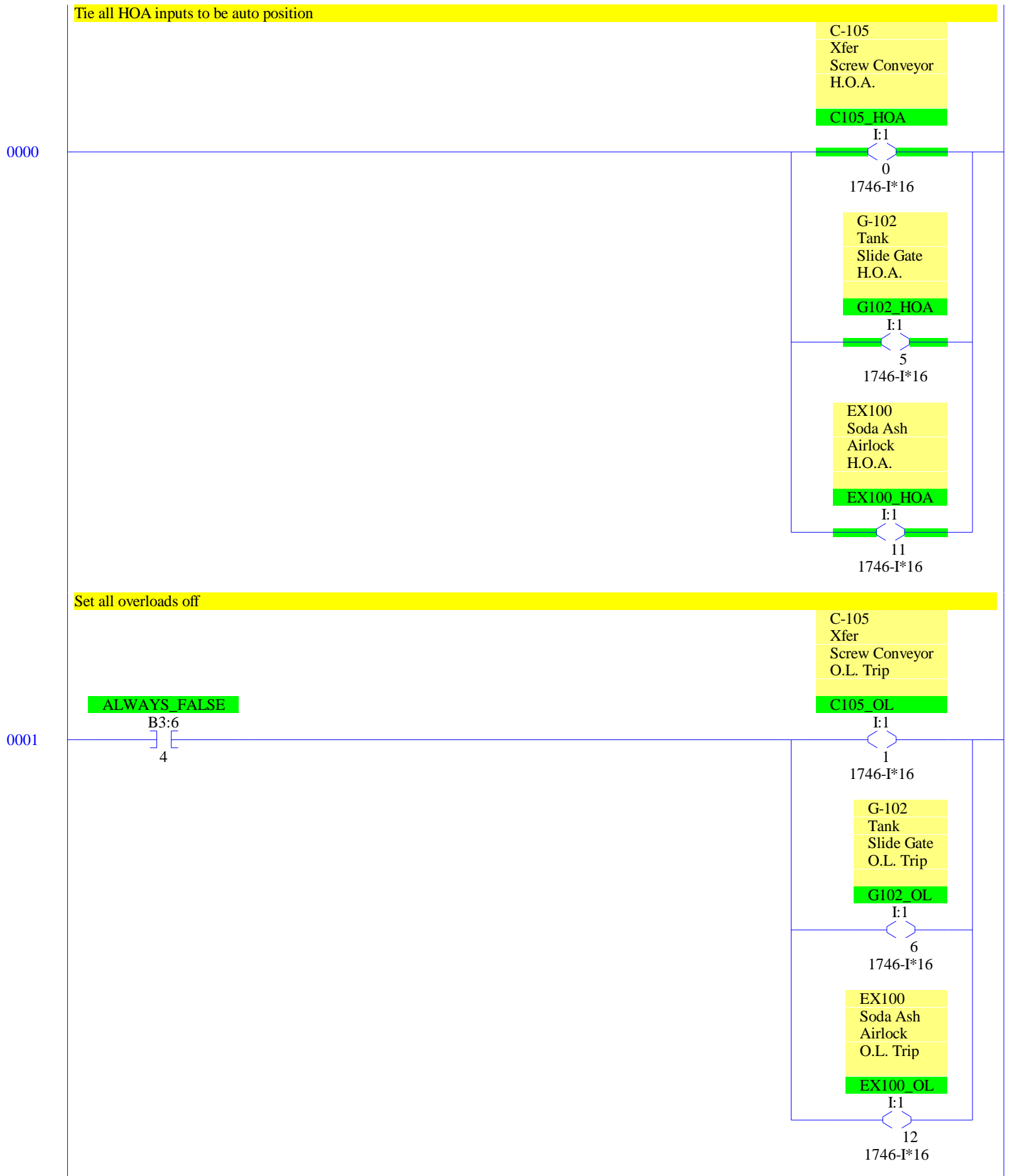


0005

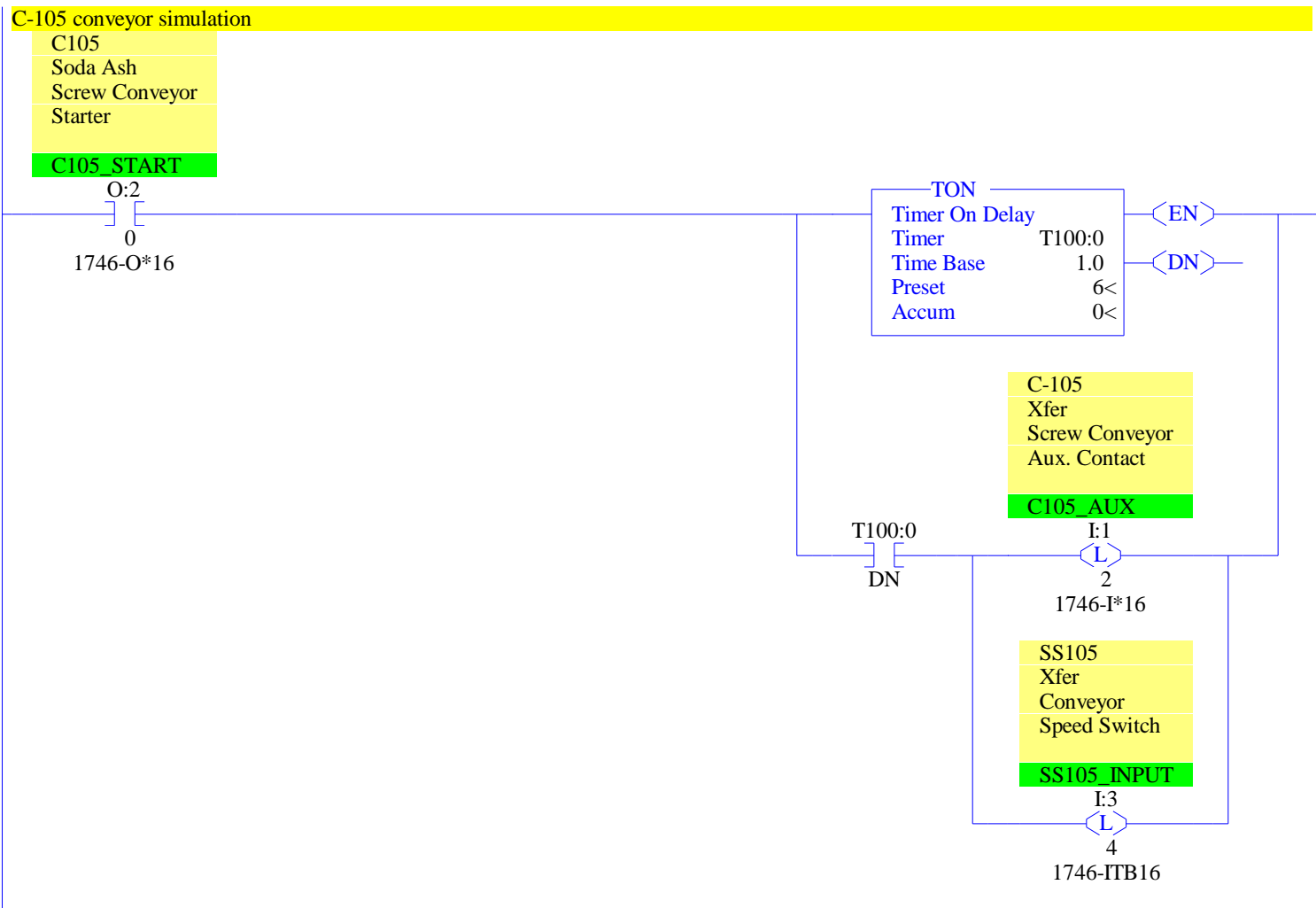


0006

<END>



0002



0003

C105
Soda Ash
Screw Conveyor
Starter

C105_START

O:2
0
1746-O*16

TON
Timer On Delay
Timer T100:1
Time Base 1.0
Preset 6<
Accum 6<

<EN>
<DN>

C-105
Xfer
Screw Conveyor
Aux. Contact

C105_AUX

T100:1
DN
I:1
2
1746-I*16

SS105
Xfer
Conveyor
Speed Switch

SS105_INPUT

I:3
4
1746-ITB16

EX100 airlock simulation

EX100
Soda Ash
Airlock
Starter

EX100_START

O:2
3
1746-O*16

TON
Timer On Delay
Timer T100:2
Time Base 1.0
Preset 6<
Accum 0<

<EN>
<DN>

EX100
Soda Ash
Airlock
Aux. Contact

EX100_AUX

T100:2
DN
I:1
13
1746-I*16

0005

EX100

Soda Ash

Airlock

Starter

EX100_START

O:2
3
1746-O*16

TON

Timer On Delay

Timer T100:3

Time Base 1.0

Preset 6<

Accum 6<

<EN>
<DN>

T100:3
DN

EX100

Soda Ash

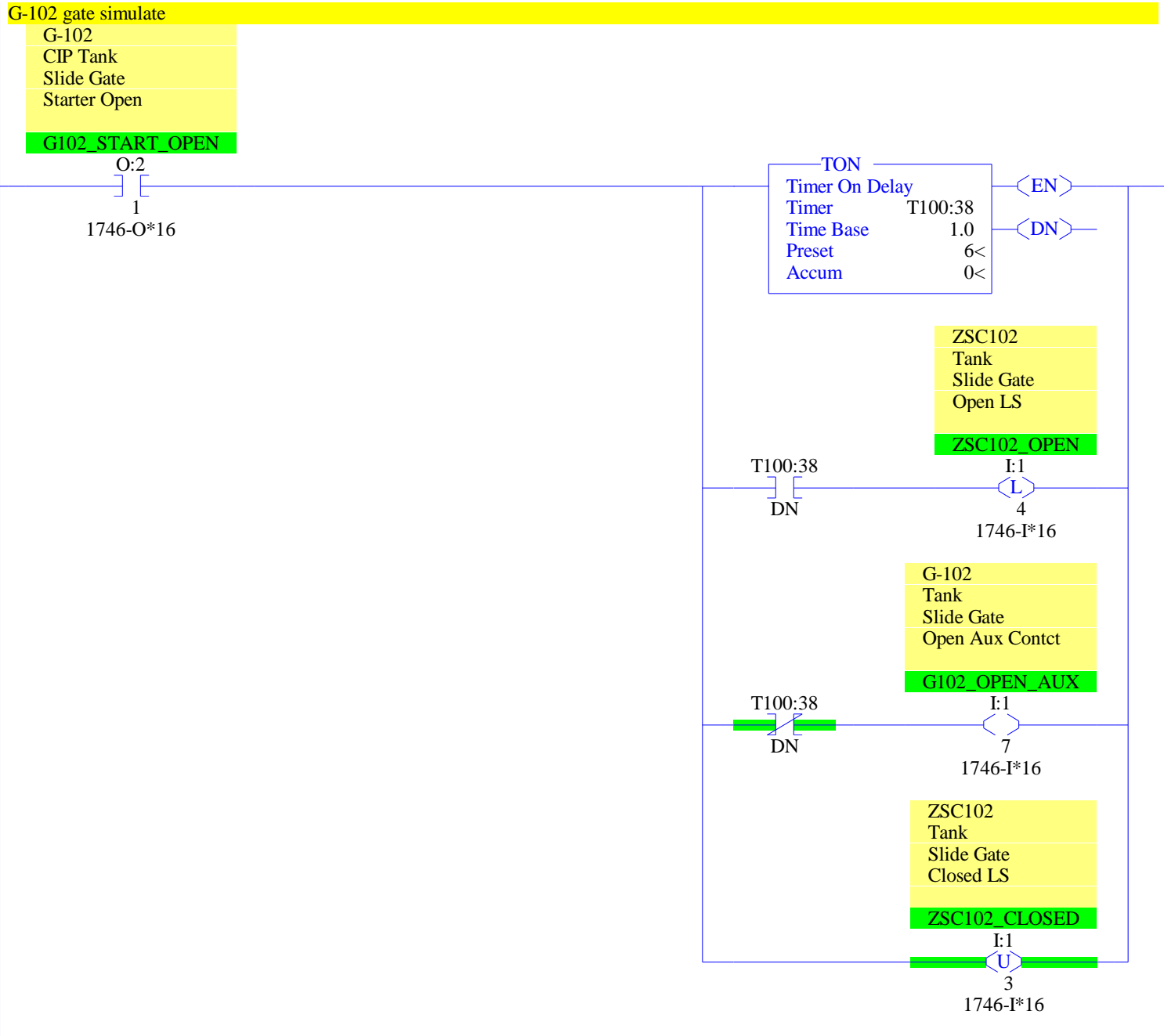
Airlock

Aux. Contact

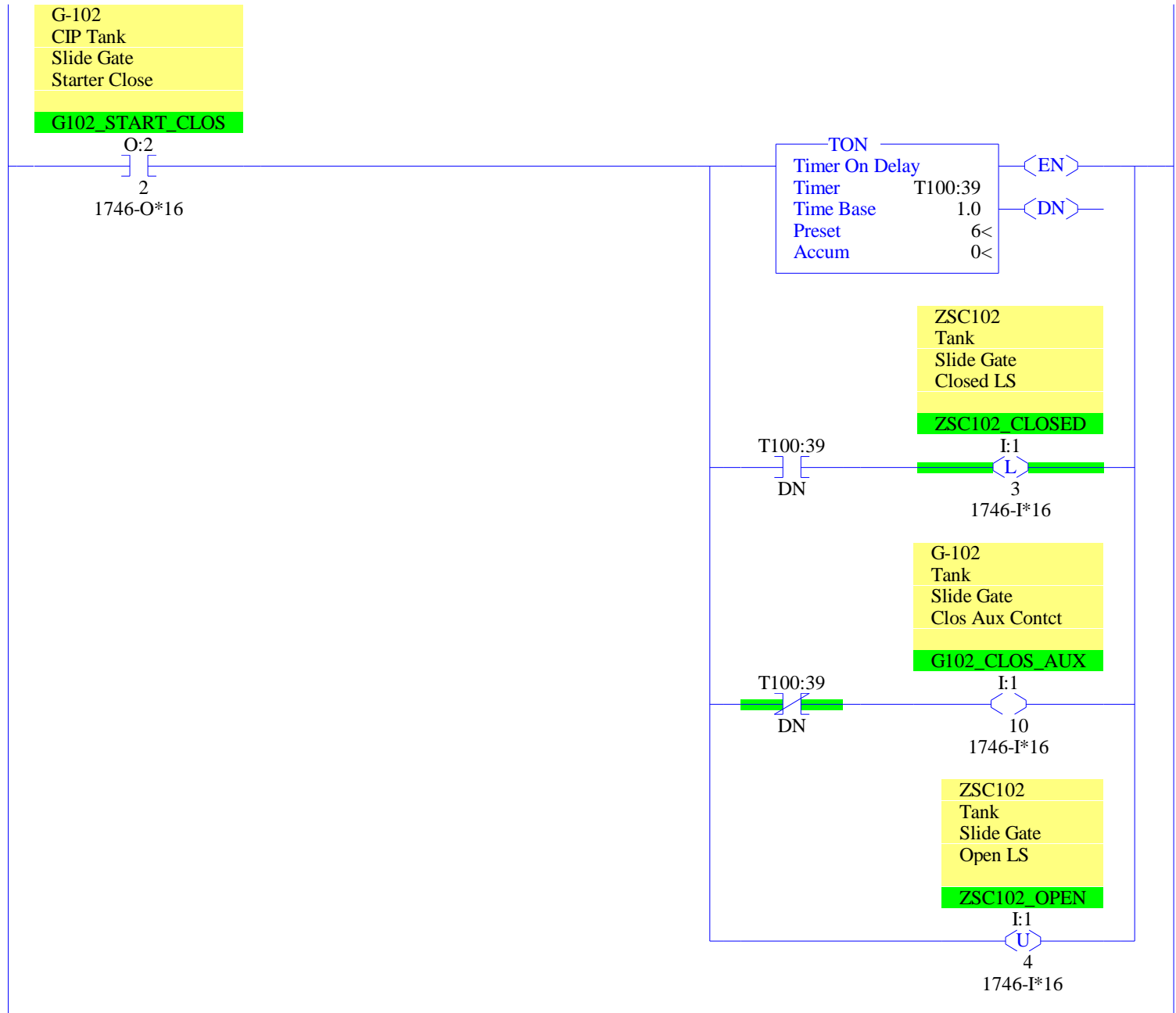
EX100_AUX

I:1
13
1746-I*16

0006



0007



0008

G-6200 flop gate simulation

G-6200

CIP Tank

Flop Gate

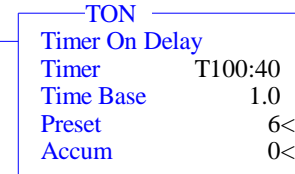
Left Solenoid

G6200_SOL_LEFT

O:2

5

1746-O*16



G-6200

CIP Tank

Flop Gate

Left Limit Switch

ZSL6200

I:3

0

1746-ITB16

T100:40

DN

G-6200

CIP Tank

Flop Gate

Right Limit Switch

ZSR6200

I:3

1

1746-ITB16

U

0009

G-6200

CIP Tank

Flop Gate

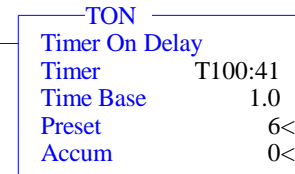
Right Solenoid

G6200_SOL_RIGHT

O:2

6

1746-O*16



G-6200

CIP Tank

Flop Gate

Right Limit Switch

ZSR6200

I:3

1

1746-ITB16

T100:41

DN

G-6200

CIP Tank

Flop Gate

Left Limit Switch

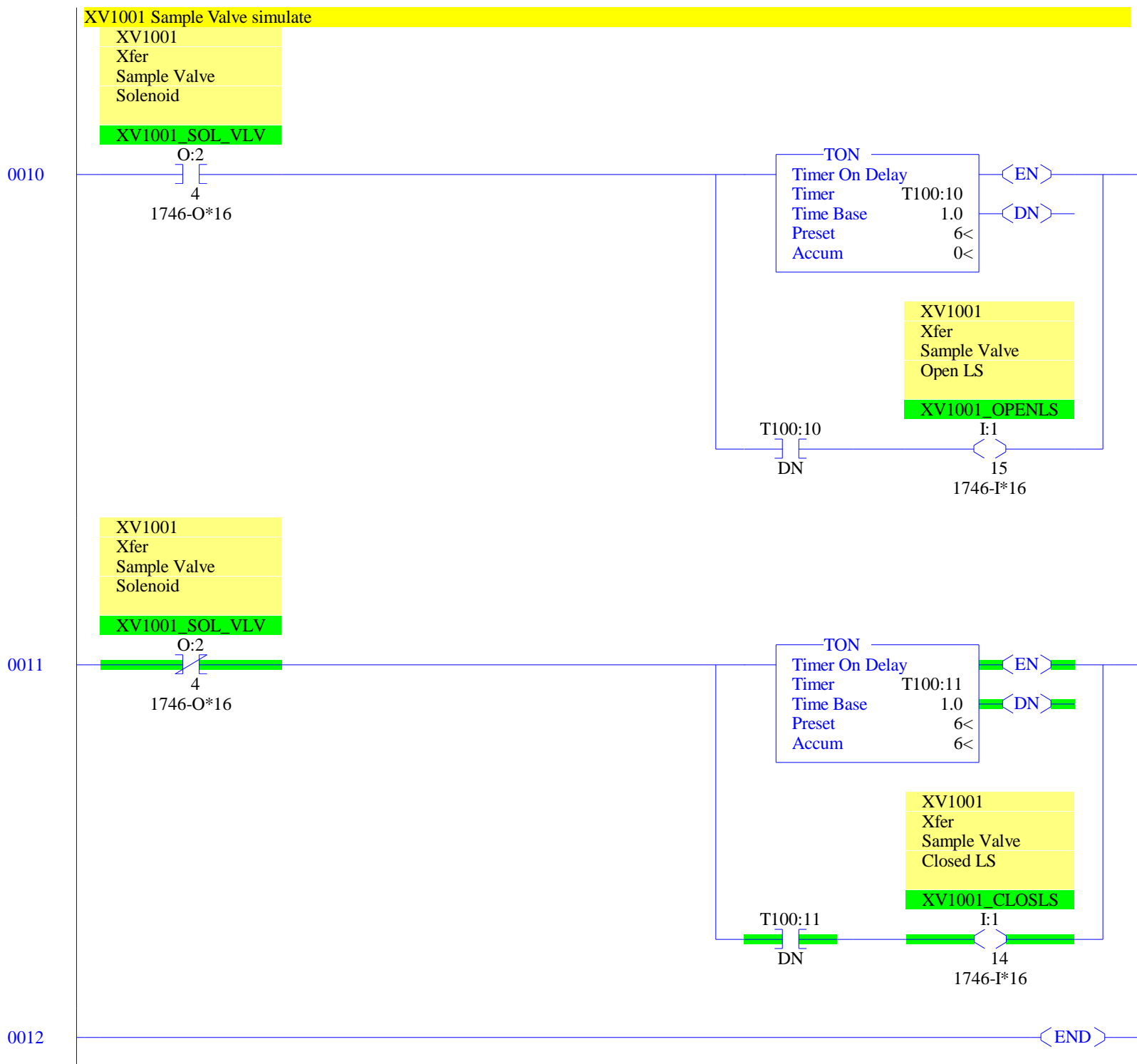
ZSL6200

I:3

0

1746-ITB16

U



RSLogix 500 Cross Reference Report - Sorted by Address

O:2/0	- {C105_START} C105 Soda Ash Screw Conveyor Starter OTE - File #10 MOTORS - 0 XIC - File #10 MOTORS - 0, 3 File #100 SIMULATE - 2 XIO - File #100 SIMULATE - 3
O:2/1	- {G102_START_OPEN} G-102 CIP Tank Slide Gate Starter Open OTE - File #10 MOTORS - 8 XIC - File #10 MOTORS - 8, 12, 13 File #100 SIMULATE - 6 XIO - File #10 MOTORS - 9
O:2/2	- {G102_START_CLOS} G-102 CIP Tank Slide Gate Starter Close OTE - File #10 MOTORS - 9 XIC - File #10 MOTORS - 9, 12, 13 File #100 SIMULATE - 7 XIO - File #10 MOTORS - 8
O:2/3	- {EX100_START} EX100 Soda Ash Airlock Starter OTE - File #10 MOTORS - 17 XIC - File #10 MOTORS - 17, 20 File #100 SIMULATE - 4 XIO - File #100 SIMULATE - 5
O:2/4	- {XV1001_SOL_VLV} XV1001 Xfer Sample Valve Solenoid OTL - File #15 VALVES - 0 OTU - File #15 VALVES - 1 XIC - File #15 VALVES - 2, 3 File #100 SIMULATE - 10 XIO - File #15 VALVES - 2, 3 File #100 SIMULATE - 11
O:2/5	- {G6200_SOL_LEFT} G-6200 CIP Tank Flop Gate Left Solenoid OTE - File #17 FLOPGATES - 0 XIC - File #17 FLOPGATES - 0, 4, 5 File #100 SIMULATE - 8 XIO - File #17 FLOPGATES - 1
O:2/6	- {G6200_SOL_RIGHT} G-6200 CIP Tank Flop Gate Right Solenoid OTE - File #17 FLOPGATES - 1 XIC - File #17 FLOPGATES - 1, 4, 5 File #100 SIMULATE - 9 XIO - File #17 FLOPGATES - 0
O:5.0	- {FY1000} Xfer Sample Flow Control AO value SCL - File #6 PIDLOOPS - 1
I:1/0	- {C105_HOA} C-105 Xfer Screw Conveyor H.O.A. OTE - File #100 SIMULATE - 0 XIC - File #10 MOTORS - 0, 4 XIO - File #10 MOTORS - 4
I:1/1	- {C105_OL} C-105 Xfer Screw Conveyor O.L. Trip OTE - File #100 SIMULATE - 1 XIC - File #10 MOTORS - 4 XIO - File #10 MOTORS - 0, 4
I:1/2	- {C105_AUX} C-105 Xfer Screw Conveyor Aux. Contact OTL - File #100 SIMULATE - 2 OTU - File #100 SIMULATE - 3 XIC - File #29 XFER_ABNOR - 5 XIO - File #10 MOTORS - 4
I:1/3	- {ZSC102_CLOSED} ZSC102 Tank Slide Gate Closed LS OTL - File #100 SIMULATE - 7 OTU - File #100 SIMULATE - 6 XIC - File #27 XFER_SHUTD - 9 XIO - File #10 MOTORS - 9
I:1/4	- {ZSC102_OPEN} ZSC102 Tank Slide Gate Open LS OTL - File #100 SIMULATE - 6 OTU - File #100 SIMULATE - 7 XIC - File #21 XFER_START - 3 XIO - File #10 MOTORS - 8
I:1/5	- {G102_HOA} G-102 Tank Slide Gate H.O.A. OTE - File #100 SIMULATE - 0 XIC - File #10 MOTORS - 8, 9, 13 XIO - File #10 MOTORS - 13
I:1/6	- {G102_OL} G-102 Tank Slide Gate O.L. Trip OTE - File #100 SIMULATE - 1 XIC - File #10 MOTORS - 13

RSLogix 500 Cross Reference Report - Sorted by Address

I:1/7	- XIO - File #10 MOTORS - 8, 9, 13 - {G102_OPEN_AUX} G-102 Tank Slide Gate Open Aux Contct OTE - File #100 SIMULATE - 6 XIO - File #10 MOTORS - 13
I:1/10	- {G102_CLOS_AUX} G-102 Tank Slide Gate Clos Aux Contct OTE - File #100 SIMULATE - 7 XIO - File #10 MOTORS - 13
I:1/11	- {EX100_HOA} EX100 Soda Ash Airlock H.O.A. OTE - File #100 SIMULATE - 0 XIC - File #10 MOTORS - 17, 21 XIO - File #10 MOTORS - 21
I:1/12	- {EX100_OL} EX100 Soda Ash Airlock O.L. Trip OTE - File #100 SIMULATE - 1 XIC - File #10 MOTORS - 21 XIO - File #10 MOTORS - 17, 21
I:1/13	- {EX100_AUX} EX100 Soda Ash Airlock Aux. Contact OTL - File #100 SIMULATE - 4 OTU - File #100 SIMULATE - 5 XIC - File #21 XFER_START - 7 XIO - File #10 MOTORS - 21 File #27 XFER_SHUTD - 3
I:1/14	- {XV1001_CLOSLS} XV1001 Xfer Sample Valve Closed LS OTE - File #100 SIMULATE - 11 XIC - File #15 VALVES - 2 XIO - File #15 VALVES - 2
I:1/15	- {XV1001_OPENLS} XV1001 Xfer Sample Valve Open LS OTE - File #100 SIMULATE - 10 XIC - File #15 VALVES - 2 XIO - File #15 VALVES - 2
I:3/0	- {ZSL6200} G-6200 CIP Tank Flop Gate Left Limit Switch OTL - File #100 SIMULATE - 8 OTU - File #100 SIMULATE - 9 XIC - File #17 FLOPGATES - 4 XIO - File #17 FLOPGATES - 0, 4
I:3/1	- {ZSR6200} G-6200 CIP Tank Flop Gate Right Limit Switch OTL - File #100 SIMULATE - 9 OTU - File #100 SIMULATE - 8 XIC - File #17 FLOPGATES - 4 XIO - File #17 FLOPGATES - 1, 4
I:3/2	- {G6200_HOA} G-6200 CIP Tank Flop Gate H.O.A. XIC - File #17 FLOPGATES - 0, 1 XIO - File #17 FLOPGATES - 6
I:3/3	- {LSL101_INPUT} LSL101 T-101 Bin Low Level Switch XIC - File #29 XFER_ABNOR - 3, 4
I:3/4	- {SS105_INPUT} SS105 Xfer Conveyor Speed Switch OTL - File #100 SIMULATE - 2 OTU - File #100 SIMULATE - 3 XIC - File #21 XFER_START - 5 XIO - File #10 MOTORS - 4 File #27 XFER_SHUTD - 7 File #29 XFER_ABNOR - 5
I:4.0	- {FT1000} Xfer Sample Flow AI reading MOV - File #4 ANALOGSCL - 0
S:1/15	- {FIRST_SCAN} First scan of ladder or SFC step XIO - File #10 MOTORS - 0, 8, 9, 17 File #17 FLOPGATES - 0, 1
B3:0/0	- {XFER_STRTUP_ONS} Xfer T-101 Start Transfer Starting One Shot Bit OSR - File #21 XFER_START - 0
B3:0/1	- {XFER_OPERAT_ONS} Xfer T-101 Operate Starting One Shot Bit OSR - File #22 XFER_OPERA - 0
B3:0/7	- {XFER_HOLD_ONS} Xfer T-101 Hold Starting One Shot Bit OSR - File #26 XFER_HOLD - 0
B3:0/8	- {XFER_SHUTDN_ONS} Xfer T-101 Shutdown Starting One Shot Bit OSR - File #27 XFER_SHUTD - 0
B3:0/9	- {XFER_ESHUTD_ONS} Xfer T-101 E-Shutdown Starting One Shot Bit OSR - File #28 XFER_ESHUT - 0

RSLogix 500 Cross Reference Report - Sorted by Address

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B3:3/2      - {XFER_STRTUP_AONS} Xfer T-101 Start Transfer Auto Request
              One Shot Bit
              OSR - File #21 XFER_START - 1
B3:3/3      - {XFER_OPERAT_AONS} Xfer T-101 Operate Auto Request One
              Shot Bit
              OSR - File #22 XFER_OPERA - 1
B3:3/9      - {XFER_HOLD_AONS} Xfer T-101 Hold Auto Request One Shot
              Bit
              OSR - File #26 XFER_HOLD - 1
B3:3/10     - {XFER_SHUTDN_AONS} Xfer T-101 Shutdown Auto Request One
              Shot Bit
              OSR - File #27 XFER_SHUTD - 1
B3:3/11     - {XFER_ESHUTD_AONS} Xfer T-101 E-Shutdown Auto Request
              One Shot Bit
              OSR - File #28 XFER_ESHUT - 1
B3:6/4      - {ALWAYS_FALSE}
              OTE - File #2 MAIN - 0
              XIC - File #2 MAIN - 0
              File #100 SIMULATE - 1
              XIO - File #2 MAIN - 0
B3:6/14     - {XFER_STRTUP_OSR} Xfer T-101 Start Transfer Auto Request
              Start One Shot Bit
              OTE - File #21 XFER_START - 1
              File #22 XFER_OPERA - 1
              XIC - File #21 XFER_START - 2
              File #22 XFER_OPERA - 2
B3:7/5      - {XFER_HOLD_OSR} Xfer T-101 Hold Auto Request Start One
              Shot Bit
              OTE - File #26 XFER_HOLD - 1
              XIC - File #26 XFER_HOLD - 2
B3:7/6      - {XFER_SHUTDN_OSR} Xfer T-101 Shutdown Auto Request Start
              One Shot Bit
              OTE - File #27 XFER_SHUTD - 1
              XIC - File #27 XFER_SHUTD - 2
B3:7/7      - {XFER_ESHUTD_OSR} Xfer T-101 E-Shutdown Auto Request
              Start One Shot Bit
              OTE - File #28 XFER_ESHUT - 1
              XIC - File #28 XFER_ESHUT - 2
B3:12/9     - OTE - File #3 COMMS - 0
T4:0        - TON - File #3 COMMS - 4
T4:0/DN     - XIC - File #3 COMMS - 5
              XIO - File #3 COMMS - 4
T4:31       - {FQI1000_TMR} Xfer Sample Flow Accumulator Timer
              TON - File #6 PIDLOOPS - 2
T4:31/DN    - Xfer Sample Flow Accumulator Timer Done
              XIC - File #6 PIDLOOPS - 3
              XIO - File #6 PIDLOOPS - 2
N7:100      - {XFER_STRTUP_STNUM} Xfer T-101 Startup Sequence Step
              Buffer
              CLR - File #22 XFER_OPERA - 0
              File #26 XFER_HOLD - 0
              File #27 XFER_SHUTD - 0
              File #28 XFER_ESHUT - 0
              MOV - File #21 XFER_START - 0, 3, 4, 5, 6, 7, 8
              ADD - File #21 XFER_START - 0
              EQU - File #21 XFER_START - 0, 3, 4, 5, 6, 7, 8
              File #22 XFER_OPERA - 1
              GEQ - File #21 XFER_START - 0
N7:101      - {XFER_OPERAT_STNUM} Xfer T-101 Operate Sequence Step Buffer
              CLR - File #21 XFER_START - 0
              File #26 XFER_HOLD - 0
              File #27 XFER_SHUTD - 0
              File #28 XFER_ESHUT - 0
              MOV - File #22 XFER_OPERA - 0
              ADD - File #22 XFER_OPERA - 0
              EQU - File #22 XFER_OPERA - 0
              GEQ - File #3 COMMS - 1
              File #22 XFER_OPERA - 0
              File #29 XFER_ABNOR - 3

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RSLogix 500 Cross Reference Report - Sorted by Address

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N7:107      - {XFER_HOLD_STNUM} Xfer T-101 Hold Sequence Step Buffer
              CLR - File #21 XFER_START - 0
                  File #22 XFER_OPERA - 0
                  File #27 XFER_SHUTD - 0
                  File #28 XFER_ESHUT - 0
              MOV - File #26 XFER_HOLD - 0
              ADD - File #26 XFER_HOLD - 0
              EQU - File #20 XFER_MISC - 0
                  File #26 XFER_HOLD - 0
              GEQ - File #26 XFER_HOLD - 0

N7:108      - {XFER_SHUTDN_STNUM} Xfer T-101 Shutdown Sequence Step
              Buffer
              CLR - File #21 XFER_START - 0
                  File #22 XFER_OPERA - 0
                  File #26 XFER_HOLD - 0
                  File #28 XFER_ESHUT - 0
              MOV - File #27 XFER_SHUTD - 0, 3, 4, 5, 6, 7, 8, 9, 10
              ADD - File #27 XFER_SHUTD - 0
              EQU - File #3 COMMS - 2
                  File #20 XFER_MISC - 0
                  File #27 XFER_SHUTD - 0, 3, 4, 5, 6, 7, 8, 9, 10
              NEQ - File #20 XFER_MISC - 1
              GRT - File #3 COMMS - 3
              GEQ - File #27 XFER_SHUTD - 0

N7:109      - {XFER_ESHUTD_STNUM} Xfer T-101 E-Shutdown Sequence Step
              Buffer
              CLR - File #21 XFER_START - 0
                  File #22 XFER_OPERA - 0
                  File #26 XFER_HOLD - 0
                  File #27 XFER_SHUTD - 0
              MOV - File #28 XFER_ESHUT - 0, 3, 4, 5, 6
              ADD - File #28 XFER_ESHUT - 0
              EQU - File #20 XFER_MISC - 0
                  File #28 XFER_ESHUT - 0, 3, 4, 5, 6
              NEQ - File #20 XFER_MISC - 1
              GRT - File #3 COMMS - 3
              GEQ - File #28 XFER_ESHUT - 0

N10:4       - {FT1000_LIM} Xfer Sample Flow Limited AI reading
              MOV - File #4 ANALOGSCL - 0, 1, 2
              PID - File #6 PIDLOOPS - 0
              CPT - File #4 ANALOGSCL - 3
              GRT - File #4 ANALOGSCL - 2
              LES - File #4 ANALOGSCL - 1

N11:0       - {FIC1000_OUT} Xfer Sample Flow Controller Output
              SCL - File #6 PIDLOOPS - 1
              PID - File #6 PIDLOOPS - 0

N12:5       - {XFER_TIM_REMAIN} Xfer Time Remaining to HMI
              MOV - File #20 XFER_MISC - 1
              SUB - File #27 XFER_SHUTD - 5
                  File #28 XFER_ESHUT - 6

N12:10      - MSG - File #3 COMMS - 5

N12:10/9    - {ASH_SDWN_CIP} Xfer Shutdown Request From CIP
              XIC - File #27 XFER_SHUTD - 1

N12:10/10   - {ASH_STRT_CIP} Xfer Start Request From CIP
              XIC - File #21 XFER_START - 1

N12:20/0    - {ASH_STRAN_RUN} Xfer Transfer Running To CIP
              OTE - File #3 COMMS - 1

N12:20/1    - {ASH_SDWN_CMP} Xfer Shutdown Complete To CIP
              OTE - File #3 COMMS - 2

N12:20/2    - {ASH_IN_SHUTDWN} Xfer In Shutdown or E-Shutdown To CIP
              OTE - File #3 COMMS - 3

N12:30/1    - {LSL101_ALM} Xfer T-101 Bin Low Alarm
              OTE - File #29 XFER_ABNOR - 4

N14:0       - {CIP_READ_MSG} CIP Read Message Control Block
              MSG - File #3 COMMS - 5

FILE N14:0 LEN:14 - MSG - File #3 COMMS - 5

N15:0/1     - {XFER_LOCAL} Xfer Unit Remote / Local Indication To PC
              XIC - File #20 XFER_MISC - 0
                  File #21 XFER_START - 0

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RSLogix 500 Cross Reference Report - Sorted by Address

```

File #22 XFER_OPERA - 0
File #26 XFER_HOLD - 0
File #27 XFER_SHUTD - 0
File #28 XFER_ESHUT - 0
XIO - File #21 XFER_START - 0
File #22 XFER_OPERA - 0
File #26 XFER_HOLD - 0
File #27 XFER_SHUTD - 0
File #28 XFER_ESHUT - 0
N15:10/1 - {XFER_MAINT} Xfer Unit Maintenance Indication To PC
OTE - File #20 XFER_MISC - 0
XIC - File #10 MOTORS - 1, 2, 10, 11, 18, 19
File #15 VALVES - 0, 1
File #17 FLOPGATES - 2, 3
XIO - File #10 MOTORS - 1, 2, 10, 11, 18, 19
File #15 VALVES - 0, 1
File #17 FLOPGATES - 2, 3
N15:20/1 - {XFER_MAN_DEVSTRT} Xfer Unit Start/Open Request From PC
XIC - File #10 MOTORS - 1, 10, 18
File #15 VALVES - 0
File #17 FLOPGATES - 2
N15:20/2 - {XFER_MAN_DEVSTOP} Xfer Unit Stop/Close Request From PC
XIC - File #10 MOTORS - 2, 11, 19
File #15 VALVES - 1
File #17 FLOPGATES - 3
N15:21 - {XFER_MAN_WORD} Xfer Unit Manual Word Request From PC
EQU - File #10 MOTORS - 1, 2, 10, 11, 18, 19
File #15 VALVES - 0, 1
File #17 FLOPGATES - 2, 3
N15:25/0 - {XFER_STRTUP_PCSTR} Xfer T-101 Start Transfer Request
From PC
XIC - File #21 XFER_START - 0
N15:25/1 - {XFER_OPERAT_PCSTR} Xfer T-101 Operate Request From PC
XIC - File #22 XFER_OPERA - 0
N15:25/7 - {XFER_HOLD_PCSTR} Xfer T-101 Hold Request From PC
XIC - File #26 XFER_HOLD - 0
N15:25/8 - {XFER_SHUTDN_PCSTR} Xfer T-101 Shutdown Request From PC
XIC - File #27 XFER_SHUTD - 0
N15:25/9 - {XFER_ESHUTD_PCSTR} Xfer T-101 E-Shutdown Request From
PC
XIC - File #28 XFER_ESHUT - 0
N15:35/0 - {XFER_STRTUP_LTSTR} Xfer T-101 Start Transfer Request
From LTP
XIC - File #21 XFER_START - 0
N15:35/1 - {XFER_OPERAT_LTSTR} Xfer T-101 Operate Request From LTP
XIC - File #22 XFER_OPERA - 0
N15:35/7 - {XFER_HOLD_LTSTR} Xfer T-101 Hold Request From LTP
XIC - File #26 XFER_HOLD - 0
N15:35/8 - {XFER_SHUTDN_LTSTR} Xfer T-101 Shutdown Request From LTP
XIC - File #27 XFER_SHUTD - 0
N15:35/9 - {XFER_ESHUTD_LTSTR} Xfer T-101 E-Shutdown Request From
LTP
XIC - File #28 XFER_ESHUT - 0
N15:45/0 - {XFER_STRTUP_RUN} Xfer T-101 Start Transfer Indication
To PC
OTE - File #21 XFER_START - 0
XIO - File #21 XFER_START - 1
N15:45/1 - {XFER_OPERAT_RUN} Xfer T-101 Operate Indication To PC
OTE - File #22 XFER_OPERA - 0
XIO - File #22 XFER_OPERA - 1
N15:45/7 - {XFER_HOLD_RUN} Xfer T-101 Hold Indication To PC
OTE - File #26 XFER_HOLD - 0
XIO - File #26 XFER_HOLD - 1
N15:45/8 - {XFER_SHUTDN_RUN} Xfer T-101 Shutdown Indication To PC
OTE - File #27 XFER_SHUTD - 0
XIO - File #27 XFER_SHUTD - 1
N15:45/9 - {XFER_ESHUTD_RUN} Xfer T-101 E-Shutdown Indication To PC
OTE - File #28 XFER_ESHUT - 0
XIO - File #28 XFER_ESHUT - 1

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RSLogix 500 Cross Reference Report - Sorted by Address

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N15:50      - {XFER_MSG} Xfer Sequence Task Message
              ADD - File #21 XFER_START - 0
                  File #22 XFER_OPERA - 0
                  File #26 XFER_HOLD - 0
                  File #27 XFER_SHUTD - 0
                  File #28 XFER_ESHUT - 0
F16:1       - {FI1000_SCALED} Xfer Sample Flow Scaled Value
              CPT - File #4 ANALOGSCL - 3
                  File #6 PIDLOOPS - 3
F16:2       - {FQI1000} Xfer Sample Flow Accumulation
              MOV - File #6 PIDLOOPS - 4
              CPT - File #6 PIDLOOPS - 3
N17:0/0     - {C105_AUXFLPC} C105 Soda Ash Screw Conveyor AuxiliaryFail to
              PC
              OTL - File #10 MOTORS - 4
              OTU - File #10 MOTORS - 6
              XIC - File #10 MOTORS - 5
N17:0/1     - {C105_HOAF LPC} C105 Soda Ash Screw Conveyor HOA Fail to PC
              OTE - File #10 MOTORS - 4
              XIC - File #10 MOTORS - 5
N17:0/2     - {C105_OLFLPC} C105 Soda Ash Screw Conveyor Overload to PC
              OTE - File #10 MOTORS - 4
              XIC - File #10 MOTORS - 5
N17:0/4     - {G102_AUXFLPC} G-102 CIP Tank Slide Gate AuxiliaryFail to PC
              OTL - File #10 MOTORS - 13
              OTU - File #10 MOTORS - 15
              XIC - File #10 MOTORS - 14
N17:0/5     - {G102_HOAF LPC} G-102 CIP Tank Slide Gate HOA Fail to PC
              OTE - File #10 MOTORS - 13
              XIC - File #10 MOTORS - 14
N17:0/6     - {G102_OLFLPC} G-102 CIP Tank Slide Gate OL Fail to PC
              OTE - File #10 MOTORS - 13
              XIC - File #10 MOTORS - 14
N17:0/8     - {EX100_AUXFLPC} EX100 Soda Ash Airlock AuxiliaryFail to PC
              OTL - File #10 MOTORS - 21
              OTU - File #10 MOTORS - 23
              XIC - File #10 MOTORS - 22
N17:0/9     - {EX100_HOAF LPC} EX100 Soda Ash Airlock HOA Fail to PC
              OTE - File #10 MOTORS - 21
              XIC - File #10 MOTORS - 22
N17:0/10    - {EX100_OLFLPC} EX100 Soda Ash Airlock O.L. Fail to PC
              OTE - File #10 MOTORS - 21
              XIC - File #10 MOTORS - 22
N17:0/12    - {XV1001_FTCPC} XV1001 Soda Ash Sample Valve Fail to Close to
              PC
              OTL - File #15 VALVES - 3
              OTU - File #15 VALVES - 5
              XIC - File #15 VALVES - 4
N17:0/13    - {XV1001_FTOPC} XV1001 Soda Ash Sample Valve Fail to Open to
              PC
              OTL - File #15 VALVES - 3
              OTU - File #15 VALVES - 5
              XIC - File #15 VALVES - 4
N17:1/1     - {SS6100_FAILTOPC} SS105 Soda Ash Speed Switch Fail Status to
              PC
              OTE - File #29 XFER_ABNOR - 5
              OTL - File #10 MOTORS - 4
              OTU - File #10 MOTORS - 6
              XIC - File #10 MOTORS - 5
N17:2/1     - {G6200_HOAF LPC} G-6200 CIP Tank Flop Gate HOA Fail to PC
              OTE - File #17 FLOPGATES - 6
              XIC - File #17 FLOPGATES - 7
N17:2/2     - {G6200_LFTFLPC} G-6200 CIP Tank Flop Gate Left Fail to PC
              OTL - File #17 FLOPGATES - 5
              OTU - File #17 FLOPGATES - 8
              XIC - File #17 FLOPGATES - 7
N17:2/3     - {G6200_RGTFLPC} G-6200 CIP Tank Flop Gate Right Fail to PC
              OTL - File #17 FLOPGATES - 5
              OTU - File #17 FLOPGATES - 8

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RSLogix 500 Cross Reference Report - Sorted by Address

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B18:0/0      - XIC - File #17 FLOPGATES - 7
               - {PC_ALM_RESET} PC Alarm Reset
               XIC - File #10 MOTORS - 6, 15, 23
                 File #15 VALVES - 5
                 File #17 FLOPGATES - 8
B23:0/0      - {XFER_STRTUP_ASTRT} Xfer T-101 Start Transfer Sequence
               Auto Request
               OTE - File #21 XFER_START - 2
               XIC - File #21 XFER_START - 0
               XIO - File #22 XFER_OPERA - 0, 1
                 File #26 XFER_HOLD - 0, 1
                 File #27 XFER_SHUTD - 0, 1
                 File #28 XFER_ESHUT - 0, 1
B23:0/1      - {XFER_OPERAT_ASTRT} Xfer T-101 Operate Sequence Auto
               Request
               OTE - File #22 XFER_OPERA - 2
               XIC - File #22 XFER_OPERA - 0
               XIO - File #21 XFER_START - 0, 1
                 File #26 XFER_HOLD - 0, 1
                 File #27 XFER_SHUTD - 0, 1
                 File #28 XFER_ESHUT - 0, 1
B23:0/7      - {XFER_HOLD_ASTRT} Xfer T-101 Hold Sequence Auto Request
               OTE - File #26 XFER_HOLD - 2
               XIC - File #26 XFER_HOLD - 0
               XIO - File #21 XFER_START - 0, 1
                 File #22 XFER_OPERA - 0, 1
                 File #27 XFER_SHUTD - 0, 1
                 File #28 XFER_ESHUT - 0, 1
B23:0/8      - {XFER_SHUTDN_ASTRT} Xfer T-101 Shutdown Sequence Auto
               Request
               OTE - File #27 XFER_SHUTD - 2
               XIC - File #27 XFER_SHUTD - 0
               XIO - File #21 XFER_START - 0, 1
                 File #22 XFER_OPERA - 0, 1
                 File #26 XFER_HOLD - 0, 1
                 File #28 XFER_ESHUT - 0, 1
B23:0/9      - {XFER_ESHUTD_ASTRT} Xfer T-101 E-Stop Sequence Auto
               Request
               OTE - File #28 XFER_ESHUT - 2
               XIC - File #28 XFER_ESHUT - 0
               XIO - File #21 XFER_START - 0, 1
                 File #22 XFER_OPERA - 0, 1
                 File #26 XFER_HOLD - 0, 1
                 File #27 XFER_SHUTD - 0, 1
T25:0        - {XFER_CLNCNV_TMR} Xfer C-2000 Clean Conveyor Delay Timer
               TON - File #27 XFER_SHUTD - 5
T25:0/DN     - Xfer C-2000 Clean Conveyor Delay Timer Done
               XIC - File #27 XFER_SHUTD - 5
T25:0.PRE    - SUB - File #27 XFER_SHUTD - 5
T25:0.ACC    - SUB - File #27 XFER_SHUTD - 5
T25:9        - {XFER_ESHTDN_TMR} Xfer Emergency Shutdown In Progress
               Timer
               TON - File #28 XFER_ESHUT - 6
T25:9/DN     - Xfer Emergency Shutdown In Progress Timer Done
               XIC - File #28 XFER_ESHUT - 6
T25:9.PRE    - SUB - File #28 XFER_ESHUT - 6
T25:9.ACC    - SUB - File #28 XFER_ESHUT - 6
T25:50       - {XFER_STRTUP_ARTMR} Xfer T-101 Start Transfer Auto
               Request Timer
               TON - File #21 XFER_START - 2
T25:50/TT    - Xfer T-101 Start Transfer Auto Request Timer Timing
               XIC - File #21 XFER_START - 2
T25:51       - {XFER_OPERAT_ARTMR} Xfer T-101 Operate Auto Request Timer
               TON - File #22 XFER_OPERA - 2
T25:51/TT    - Xfer T-101 Operate Auto Request Timer Timing
               XIC - File #22 XFER_OPERA - 2
T25:57       - {XFER_HOLD_ARTMT} Xfer T-101 Hold Auto Request Timer
               TON - File #26 XFER_HOLD - 2
T25:57/TT    - Xfer T-101 Hold Auto Request Timer Timing

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RSLogix 500 Cross Reference Report - Sorted by Address

T25:58	- XIC - File #26 XFER_HOLD - 2
	- {XFER_SDN_ARTMT} Xfer T-101 Shutdown Auto Request Timer
T25:58/TT	- TON - File #27 XFER_SHUTD - 2
	- Xfer T-101 Shutdown Auto Request Timer Timing
T25:59	- XIC - File #27 XFER_SHUTD - 2
	- {XFER_ESH_ARTMR} Xfer T-101 E-Shutdown Auto Request Timer
T25:59/TT	- TON - File #28 XFER_ESHUT - 2
	- Xfer T-101 E-Shutdown Auto Request Timer Timing
B30:0/0	- XIC - File #28 XFER_ESHUT - 2
	- {C105_STRTUP_REQ} C-105 Xfer Screw Conveyor Start Request
B30:0/1	- OTE - File #10 MOTORS - 1
	- XIC - File #10 MOTORS - 0
	- {C105_STP_REQ} C-105 Xfer Screw Conveyor Stop Request
B30:0/2	- OTE - File #10 MOTORS - 2
	- XIO - File #10 MOTORS - 0
	- {C105_ANYFAIL} C-105 Xfer Screw Conveyor Comb Fail Bit
	- OTE - File #10 MOTORS - 5
	- XIC - File #29 XFER_ABNOR - 1
	- XIO - File #10 MOTORS - 0
B30:0/3	- {C105_SEQ_STRT} C-105 Xfer Screw Conveyor Sequence Start Request
	- OTL - File #21 XFER_START - 5
	- OTU - File #10 MOTORS - 7
	- XIC - File #10 MOTORS - 1
B30:0/4	- {C105_SEQ_STOP} C-105 Xfer Screw Conveyor Sequence Stop Request
	- OTL - File #27 XFER_SHUTD - 7
	- File #28 XFER_ESHUT - 3
	- OTU - File #10 MOTORS - 7
	- XIC - File #10 MOTORS - 2
B30:0/8	- {G102_OPN_REQ} G-102 Tank Slide Gate Open Request
	- OTE - File #10 MOTORS - 10
	- XIC - File #10 MOTORS - 8
	- XIO - File #10 MOTORS - 9
B30:0/9	- {G102_CLS_REQ} G-102 Tank Slide Gate Close Request
	- OTE - File #10 MOTORS - 11
	- XIC - File #10 MOTORS - 9
	- XIO - File #10 MOTORS - 8
B30:0/10	- {G102_ANYFAIL} G-102 Tank Slide Gate Comb Fail Bit
	- OTE - File #10 MOTORS - 14
	- XIC - File #29 XFER_ABNOR - 2
B30:0/11	- {G102_SEQ_OPEN} G-102 Tank Slide Gate Sequence Open Request
	- OTL - File #21 XFER_START - 3
	- OTU - File #10 MOTORS - 16
	- XIC - File #10 MOTORS - 10
B30:0/12	- {G102_SEQ_CLOS} G-102 Tank Slide Gate Sequence Close Request
	- OTL - File #27 XFER_SHUTD - 9
	- File #28 XFER_ESHUT - 5
	- OTU - File #10 MOTORS - 16
	- XIC - File #10 MOTORS - 11
B30:1/0	- {EX100_STRTUP_REQ} EX100 T-101 Airlock Start Request
	- OTE - File #10 MOTORS - 18
	- XIC - File #10 MOTORS - 17
B30:1/1	- {EX100_STP_REQ} EX100 T-101 Airlock Stop Request
	- OTE - File #10 MOTORS - 19
	- XIO - File #10 MOTORS - 17
B30:1/2	- {EX100_ANYFAIL} EX100 T-101 Airlock Comb Fail Bit
	- OTE - File #10 MOTORS - 22
	- XIC - File #29 XFER_ABNOR - 0
	- XIO - File #10 MOTORS - 17
B30:1/3	- {EX100_SEQ_STRT} EX100 T-101 Airlock Sequence Start Request
	- OTL - File #21 XFER_START - 7
	- OTU - File #10 MOTORS - 24
	- XIC - File #10 MOTORS - 18
B30:1/4	- {EX100_SEQ_STOP} EX100 T-101 Airlock Sequence Stop Request
	- OTL - File #27 XFER_SHUTD - 3
	- File #28 XFER_ESHUT - 3
	- OTU - File #10 MOTORS - 24

RSLogix 500 Cross Reference Report - Sorted by Address

B30:1/10	- XIC - File #10 MOTORS - 19 - {XV1001_ANYFAIL} XV1001 Sample Sample Valve Comb. Fail OTE - File #15 VALVES - 4
B30:1/11	- {XV1001_SEQ_CLOS} XV1001 Sample Sample Valve Sequence Close Request OTU - File #15 VALVES - 6 XIC - File #15 VALVES - 1
B30:1/12	- {XV1001_SEQ_OPEN} XV1001 Sample Sample Valve Sequence Open Request OTU - File #15 VALVES - 6 XIC - File #15 VALVES - 0
B30:2/0	- {G6200_LFT_REQ} G-6200 Sample Flop Gate Left Request OTE - File #17 FLOPGATES - 2 XIC - File #17 FLOPGATES - 0 XIO - File #17 FLOPGATES - 1
B30:2/1	- {G6200_RGT_REQ} G-6200 Sample Flop Gate Right Request OTE - File #17 FLOPGATES - 3 XIC - File #17 FLOPGATES - 1 XIO - File #17 FLOPGATES - 0
B30:2/2	- {G6200_ANYFAIL} G-6200 Sample Flop Gate Comb Fail Bit OTE - File #17 FLOPGATES - 7 XIO - File #17 FLOPGATES - 0, 1
B30:2/3	- {G6200_SEQ_LEFT} G-6200 Sample Flop Gate Left Sequence Move Request OTU - File #17 FLOPGATES - 9 XIC - File #17 FLOPGATES - 2
B30:2/4	- {G6200_SEQ_RIGHT} G-6200 Sample Flop Gate Right Sequence Move Request OTU - File #17 FLOPGATES - 9 XIC - File #17 FLOPGATES - 3
B30:2/8	- {FQI1000_RESET} Xfer Sample Flow Accumulator Reset OTU - File #6 PIDLOOPS - 5 XIC - File #6 PIDLOOPS - 4
T31:0	- {C105_FAIL_TMR} C-105 Xfer Screw Conveyor Fail Timer TON - File #10 MOTORS - 3
T31:0/DN	- C-105 Xfer Screw Conveyor Fail Timer Done XIC - File #10 MOTORS - 4
T31:1	- {G102_FAIL_TMR} G-102 Xfer Slide Gate Fail Timer TON - File #10 MOTORS - 12
T31:1/DN	- G-102 Xfer Slide Gate Fail Timer Done XIC - File #10 MOTORS - 13
T31:2	- {L6100_FAIL_TMR} EX100 Xfer Slide Gate Fail Timer TON - File #10 MOTORS - 20
T31:2/DN	- EX100 Xfer Slide Gate Fail Timer Done XIC - File #10 MOTORS - 21
T31:3	- {XV1001_FAIL_TMR} XV1001 Xfer Sample Valve Fail Timer TON - File #15 VALVES - 2
T31:3/DN	- XV1001 Xfer Sample Valve Fail Timer Done XIC - File #15 VALVES - 3
T31:4	- {G6200_FAIL_TMR} G-6200 Xfer Flop Gate Fail Timer TON - File #17 FLOPGATES - 4
T31:4/DN	- G-6200 Xfer Flop Gate Fail Timer Done XIC - File #17 FLOPGATES - 5
T31:5	- {LSL101_ALM_TMR} LSL101 Xfer Low Level Swtch Alarm Timer TON - File #29 XFER_ABNOR - 4
T31:5/DN	- LSL101 Xfer Low Level Swtch Alarm Timer Done XIC - File #29 XFER_ABNOR - 4
T31:6	- {SS105_FAIL_TMR} SS105 Xfer Speed Switch Fail Timer TON - File #29 XFER_ABNOR - 5
T31:6/DN	- SS105 Xfer Speed Switch Fail Timer Done XIC - File #29 XFER_ABNOR - 5
T31:135	- {EX100_FL_HDTM} EX100 Xfer Airlock Shutdown Timer TON - File #29 XFER_ABNOR - 0
T31:135/DN	- EX100 Xfer Airlock Shutdown Timer Done XIC - File #26 XFER_HOLD - 1
T31:136	- {C105_FL_ESDTM} C-105 Xfer Screw Conveyor E-Shutdown Timer TON - File #29 XFER_ABNOR - 1
T31:136/DN	- C-105 Xfer Screw Conveyor E-Shutdown Timer Done

RSLogix 500 Cross Reference Report - Sorted by Address

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T31:137      - XIC - File #28 XFER_ESHUT - 1
              - {G102_FL_ESDTM} G-102 Xfer Slide Gate E-Shutdown Timer
T31:137/DN   - TON - File #29 XFER_ABNOR - 2
              - G-102 Xfer Slide Gate E-Shutdown Timer Done
T31:138      - XIC - File #28 XFER_ESHUT - 1
              - {LSL101_SD_TMR} LSL101 Xfer Low Level Swtch Shutdown Timer
T31:138/DN   - TON - File #29 XFER_ABNOR - 3
              - LSL100 Xfer Low Level Swtch Shutdown Timer Done
T31:139/DN   - XIC - File #27 XFER_SHUTD - 1
              - SS6100 Xfer Screw Conveyor Off E-Shutdown Timer Done
N50:25       - XIC - File #28 XFER_ESHUT - 1
              - {FIC1000} FIC1000 Soda Ash Sample Flow
              - PID - File #6 PIDLOOPS - 0
FILE N50:25 LEN:23 - PID - File #6 PIDLOOPS - 0
T100:0       - TON - File #100 SIMULATE - 2
T100:0/DN    - XIC - File #100 SIMULATE - 2
T100:1       - TON - File #100 SIMULATE - 3
T100:1/DN    - XIC - File #100 SIMULATE - 3
T100:2       - TON - File #100 SIMULATE - 4
T100:2/DN    - XIC - File #100 SIMULATE - 4
T100:3       - TON - File #100 SIMULATE - 5
T100:3/DN    - XIC - File #100 SIMULATE - 5
T100:10      - TON - File #100 SIMULATE - 10
T100:10/DN   - XIC - File #100 SIMULATE - 10
T100:11      - TON - File #100 SIMULATE - 11
T100:11/DN   - XIC - File #100 SIMULATE - 11
T100:38      - TON - File #100 SIMULATE - 6
T100:38/DN   - XIC - File #100 SIMULATE - 6
              - XIO - File #100 SIMULATE - 6
T100:39      - TON - File #100 SIMULATE - 7
T100:39/DN   - XIC - File #100 SIMULATE - 7
              - XIO - File #100 SIMULATE - 7
T100:40      - TON - File #100 SIMULATE - 8
T100:40/DN   - XIC - File #100 SIMULATE - 8
T100:41      - TON - File #100 SIMULATE - 9
T100:41/DN   - XIC - File #100 SIMULATE - 9
U:3          - JSR - File #2 MAIN - 1
U:4          - JSR - File #2 MAIN - 2
U:10         - JSR - File #2 MAIN - 3
U:15         - JSR - File #2 MAIN - 4
U:20         - JSR - File #2 MAIN - 5
U:21         - JSR - File #2 MAIN - 6
U:22         - JSR - File #2 MAIN - 7
U:26         - JSR - File #2 MAIN - 8
U:27         - JSR - File #2 MAIN - 9
U:28         - JSR - File #2 MAIN - 10
U:29         - JSR - File #2 MAIN - 11
U:100        - JSR - File #2 MAIN - 12

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