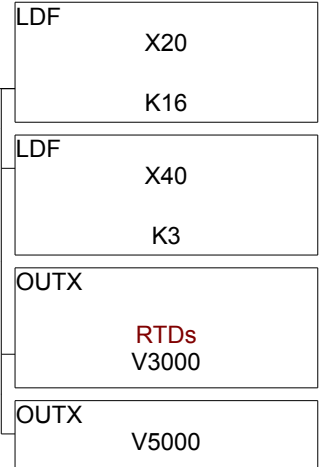


Path: c:\documents and settings\epeoples\desktop\rfq plc\elmierfqplc.prj  
Save Date: 12/22/09 11:37:29  
Creation Date: 12/02/08 15:34:44  
PLC Type: 450  
Class ID: DirectLogic 405 Series  
Link Name: RFQMESON

RTD READINGS

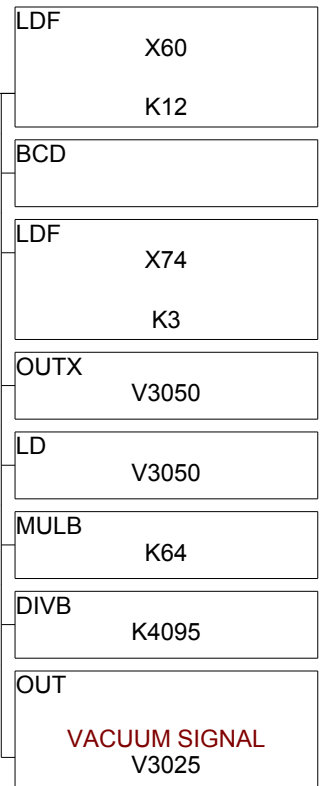
10/12/09 - The RTD Readings are on memory locations V500x.  
 V5000 RFQ Body Inlet Temp (ch 1)  
 V5001 RFQ Vanes Inlet Temp (ch 2)  
 V5002 MS6 LCW Supply Temp (ch 3)  
 V5003 (ch 4)  
 V5004 RFQ Vanes Outlet Temp (ch 5)  
 V5005 (ch 6)  
 V5006 MS6 East Return Temp (ch 7)  
 V5007 MS6 West Return Temp (ch 8)

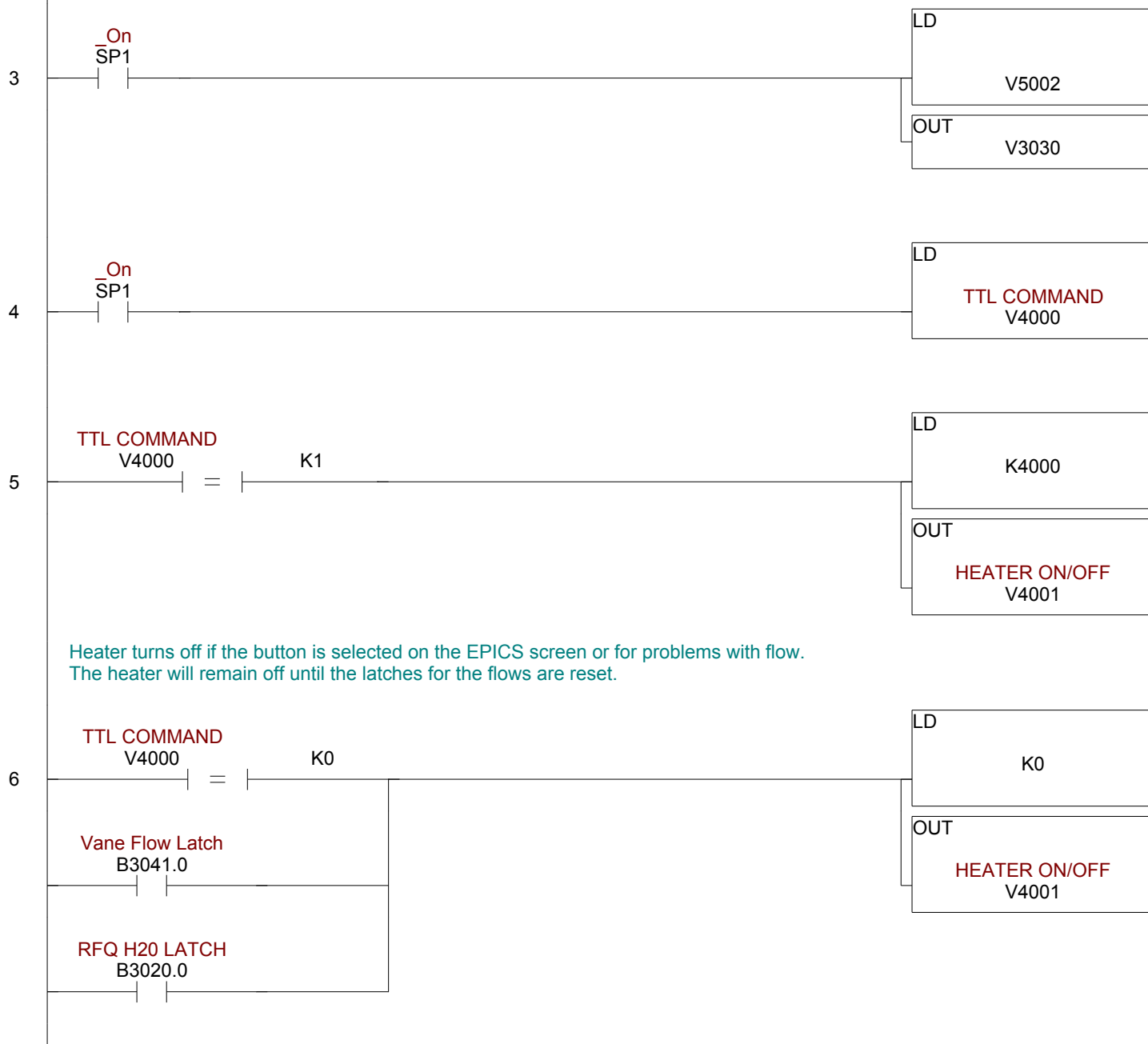
1 On  
SP1



LOAD ANALOG VACUUM SIGNAL - RFQ IG vacuum signal

2 On  
SP1





7 On  
SP1

LD  
**HEATER ON/OFF**  
V4001

BIN

OUTF  
Y0  
K12

Y14  
( RST )

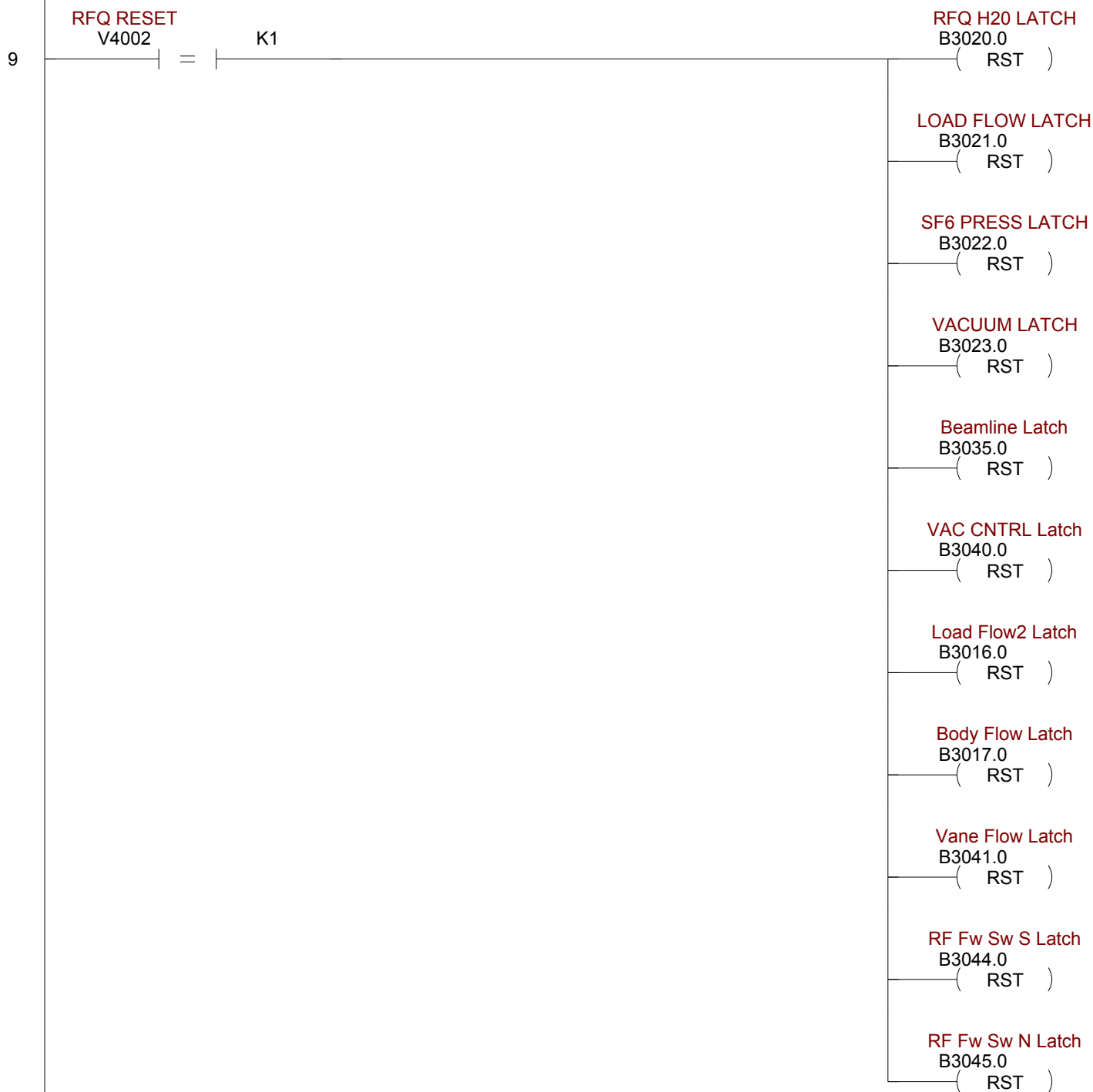
Y15  
( RST )

Y16  
( OUT )

8 On  
SP1

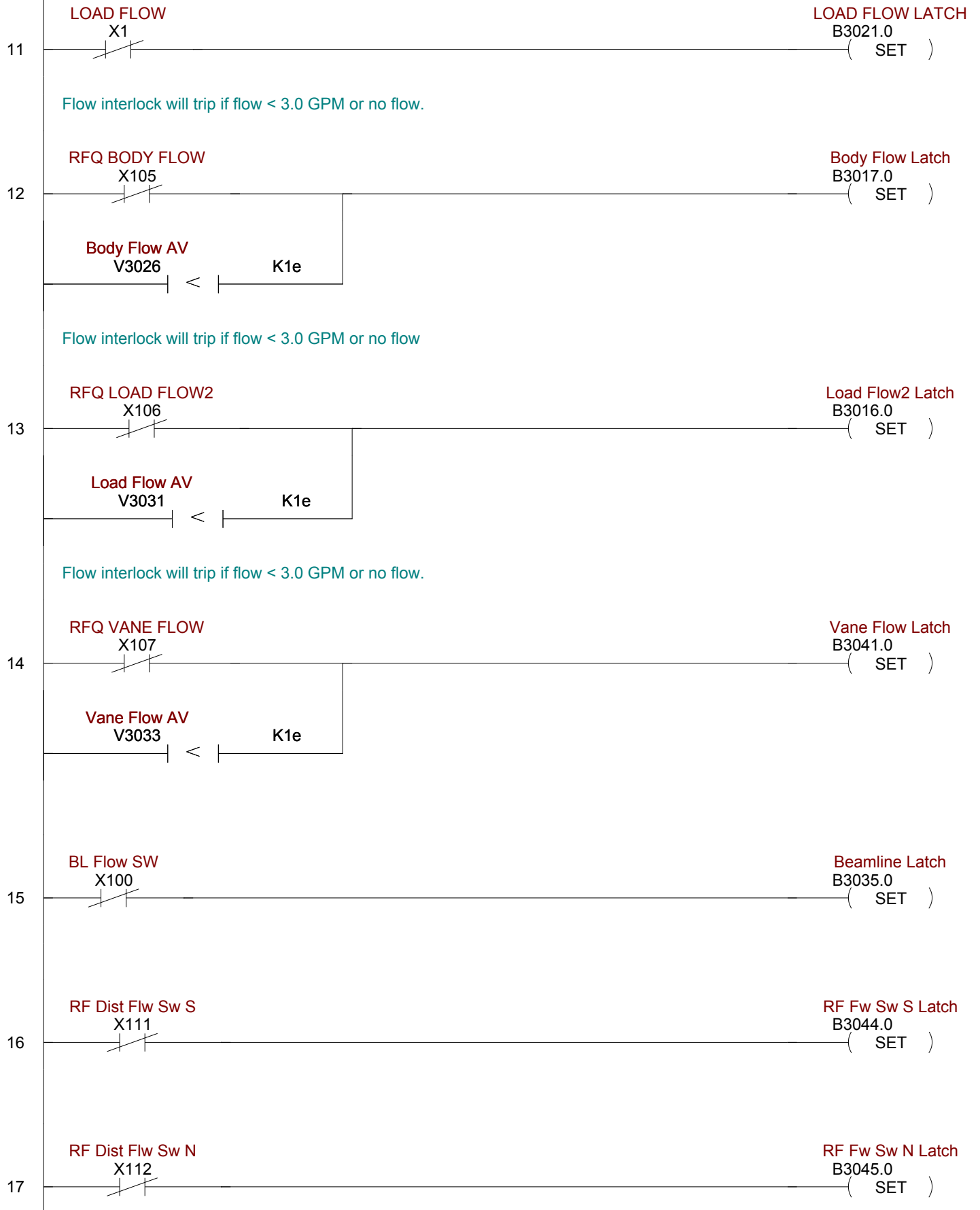
LD  
**RFQ RESET**  
V4002

Resetting latches for RFQ vacuum/flow/pressure switches.



Creating latches for interlocked signals.







12/21/09  
RFQ Vacuum signal from IG controller, analog value. No status, just a latch.



12/18/2009  
RFQ water interlock removed from RFQ permit logic. (B3020.0)

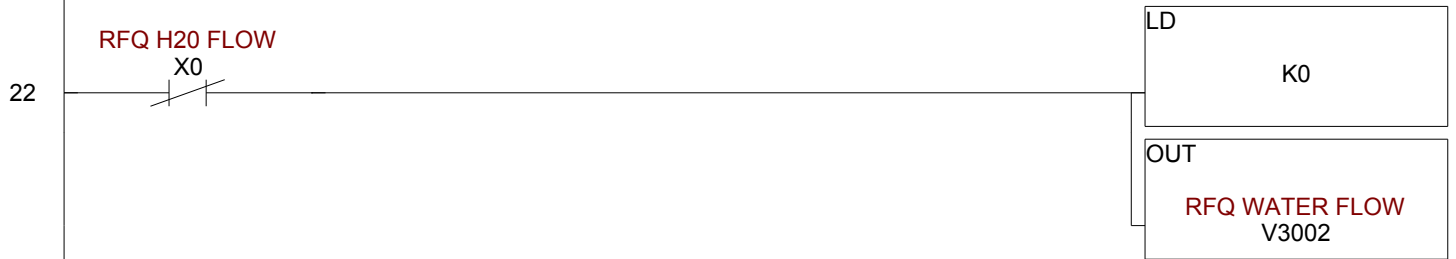


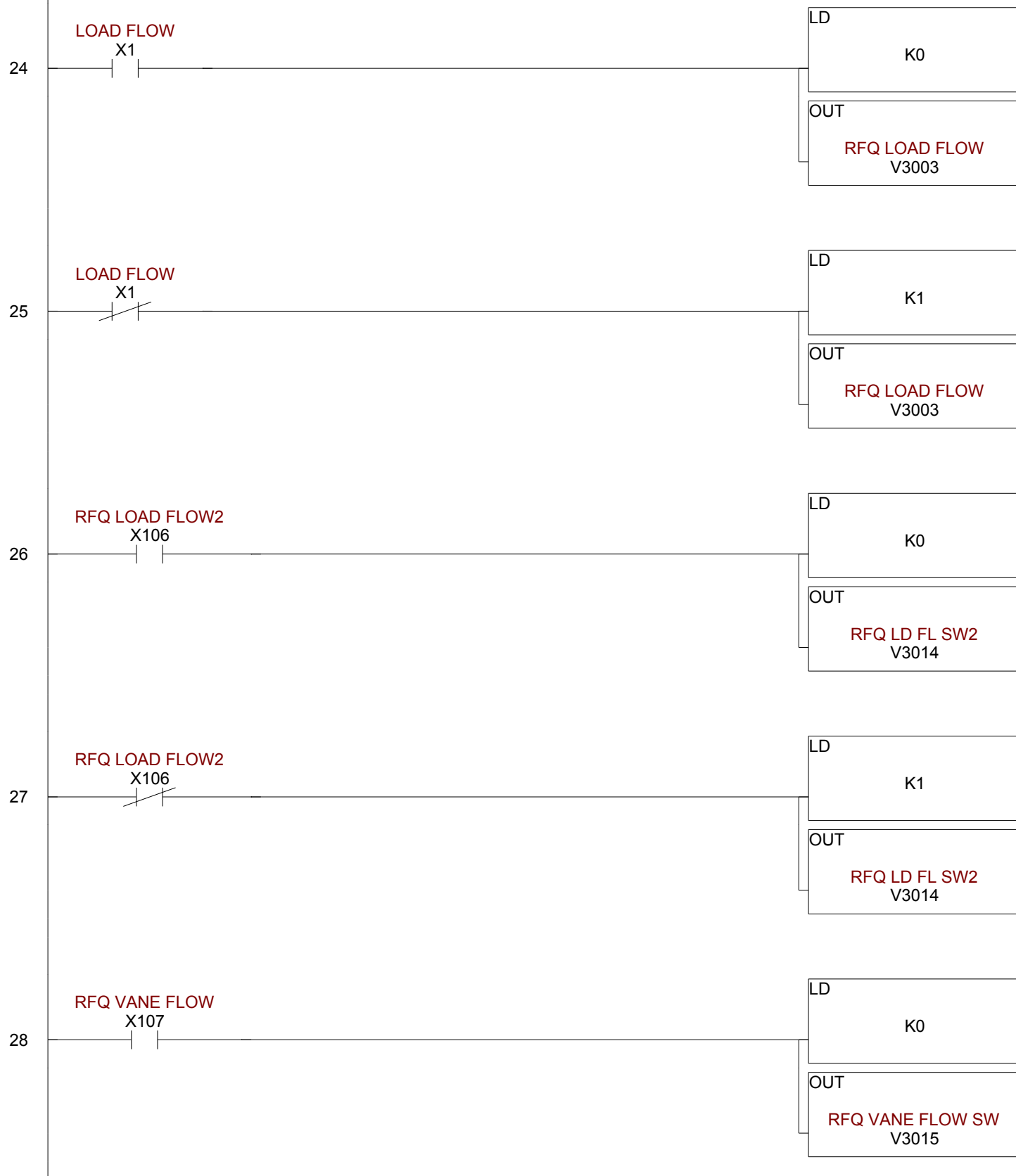
A

A



Creating status values for signals to be displayed in EPICS program.  
0 = good status  
1 = bad status

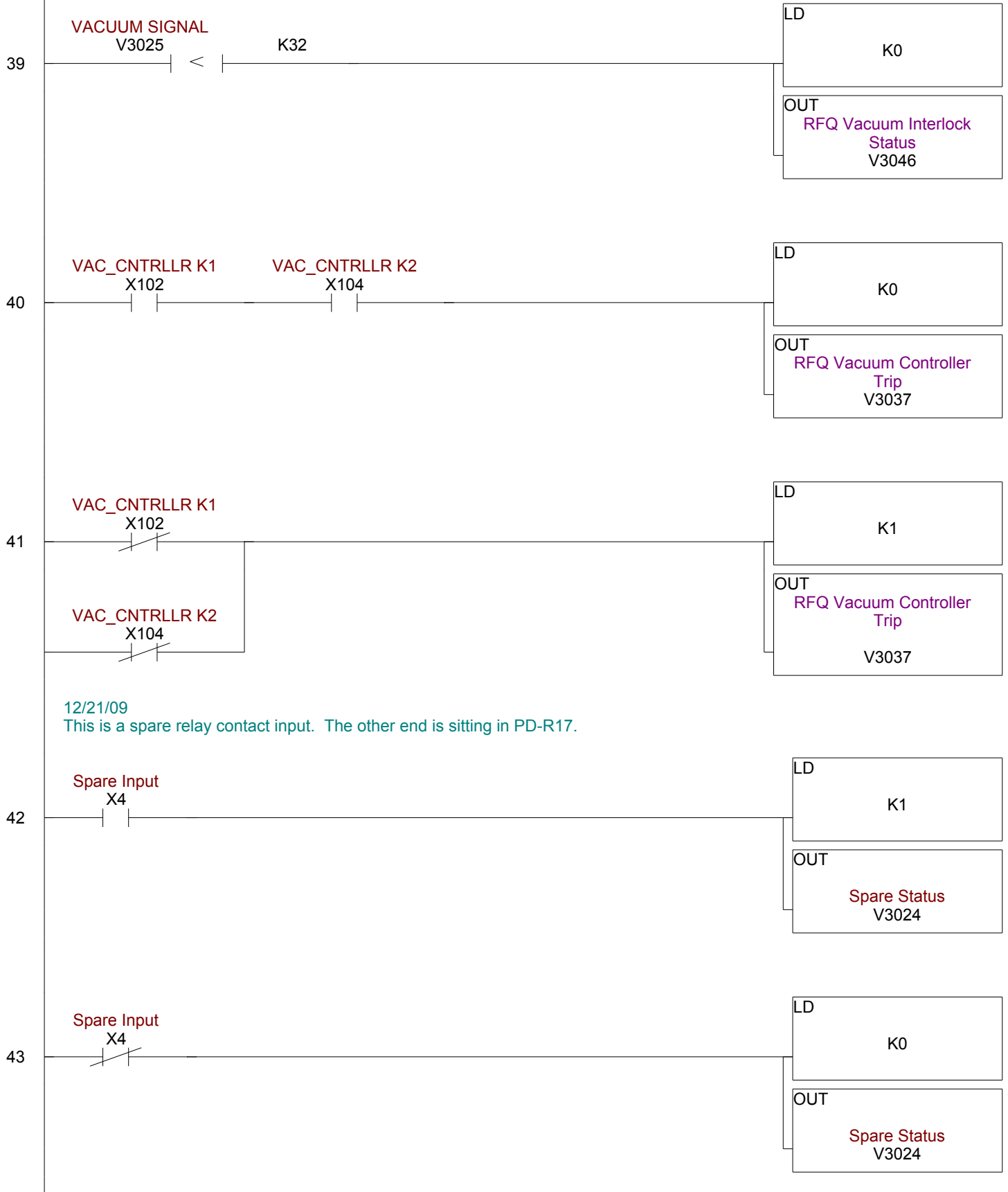


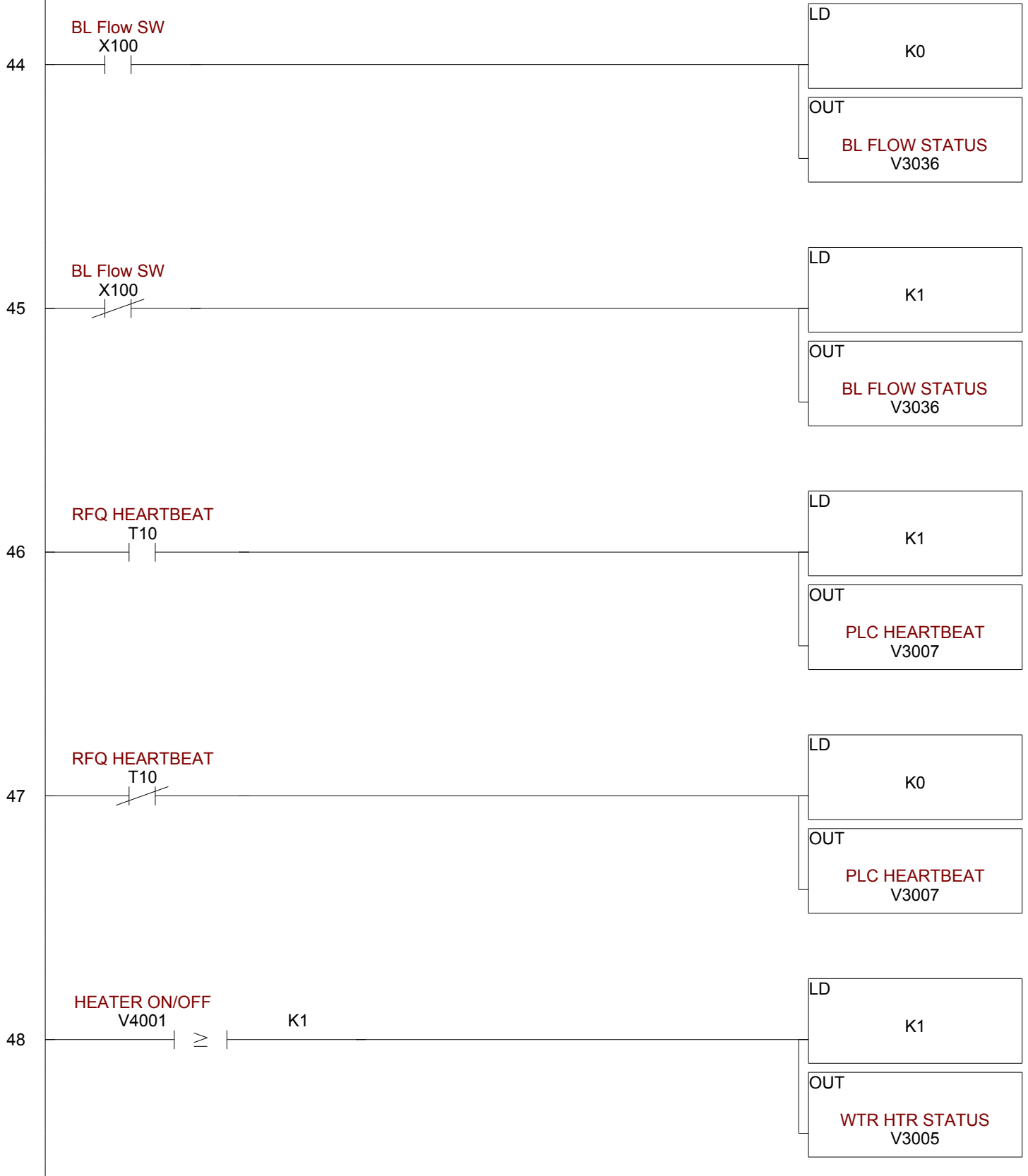


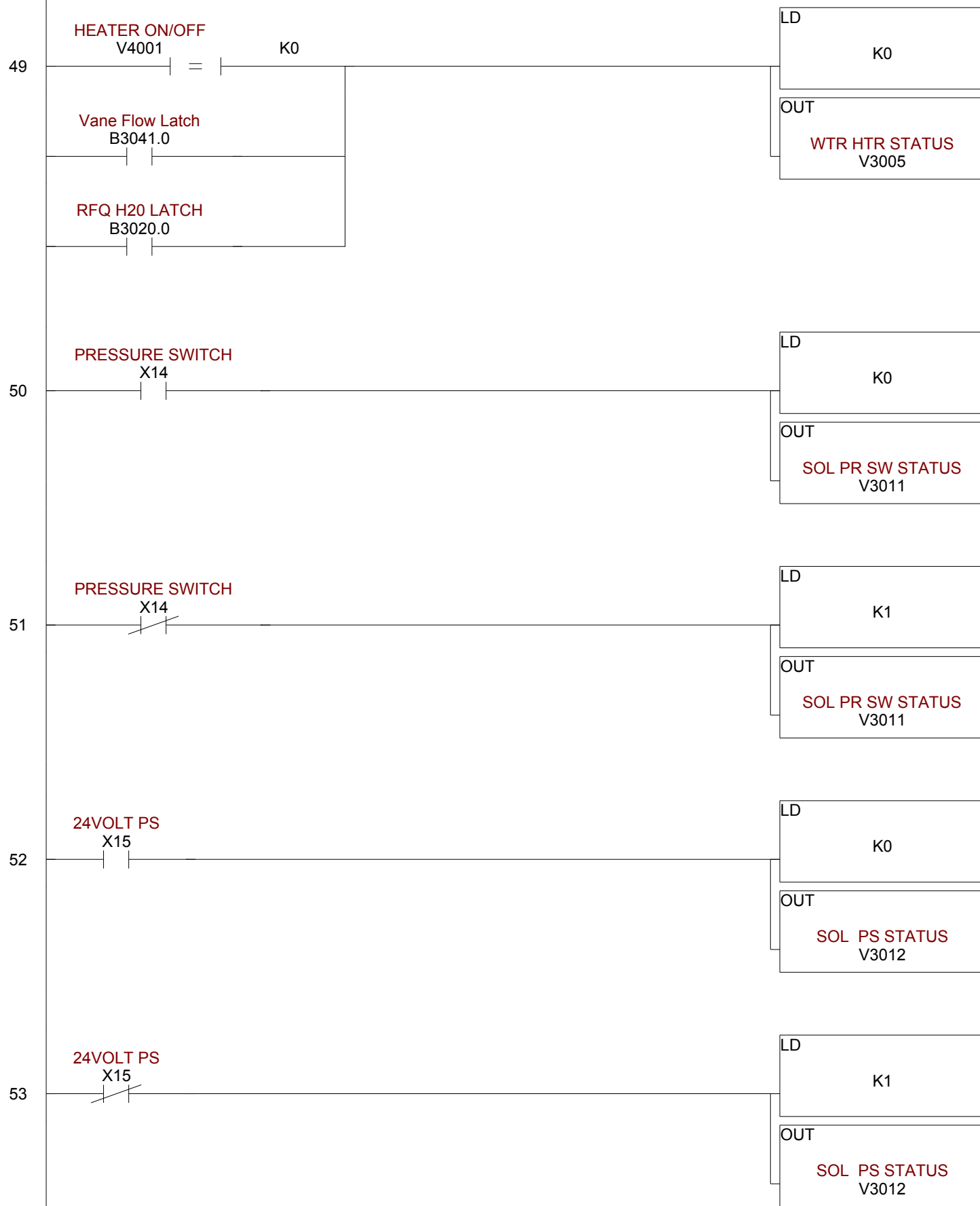


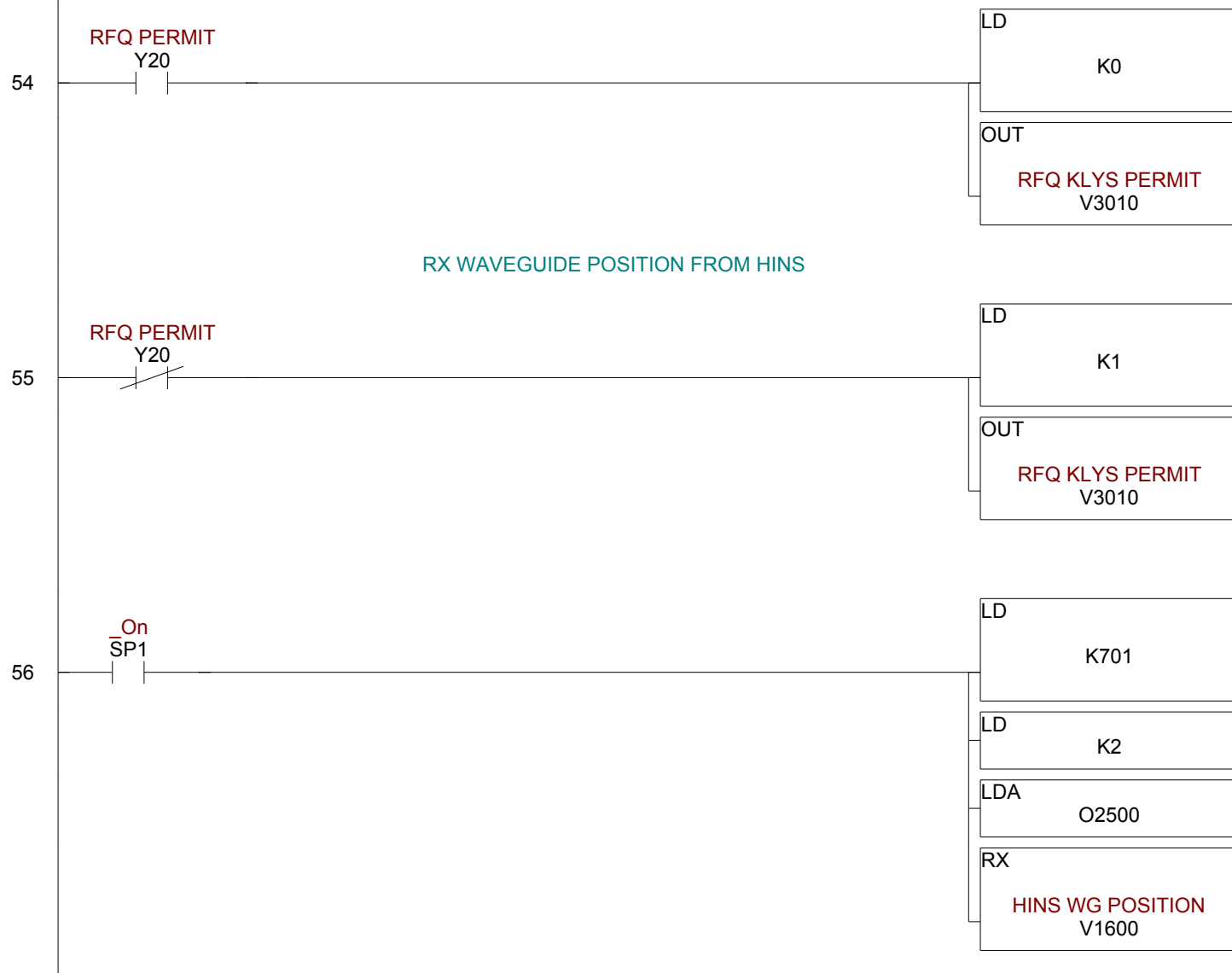












Loading analog values for temperature/flow of RFQ water outlet.

RFQ Body Flow V3060

RFQ Body Temp V3061

RFQ Vane Flow V3062

RFQ Vane Temp V3063

RFQ Load Flow V3064

RFQ Load Temp V3065

V3066 and V3067 are left floating cause nothing is plugged up to inputs X126 and X127.

Temp = analog value (180/4095) + 32

Flow = analog value (22/4095) + 3

The equations multiply value by 10 to get a more accurate value.

11/2/09

MS6 East Transducer Pressure Value V3066

MS6 West Transducer Pressure Value V3067

57

On  
SP1

LDF	X120
	K12

LDF	X134
	K3

OUTX	V3060
------	-------

LD	V3060
----	-------

MULB	Kfa
------	-----

DIVB	Kfff
------	------

OUT	Body Flow AV V3026
-----	-----------------------

LD	V3061
----	-------

MULB	K708
------	------

DIVB	Kfff
------	------

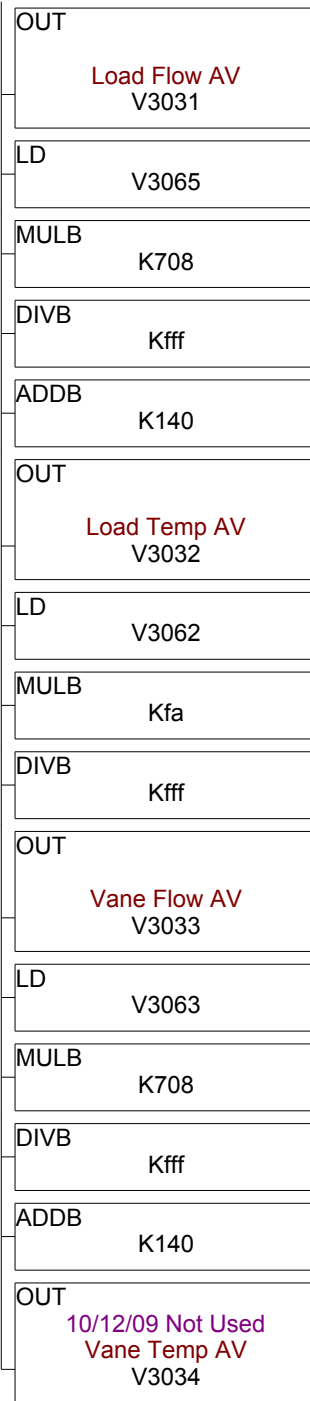
ADDB	K140
------	------

OUT	Body Temp AV V3027
-----	-----------------------

LD	V3064
----	-------

MULB	Kfa
------	-----

DIVB	Kfff
------	------



58 ( NOP )

59 ( NOP )

60 ( NOP )



61 ( NOP )

62 ( NOP )

63 ( NOP )

64 ( NOP )

65 ( END )

66 ( NOP )