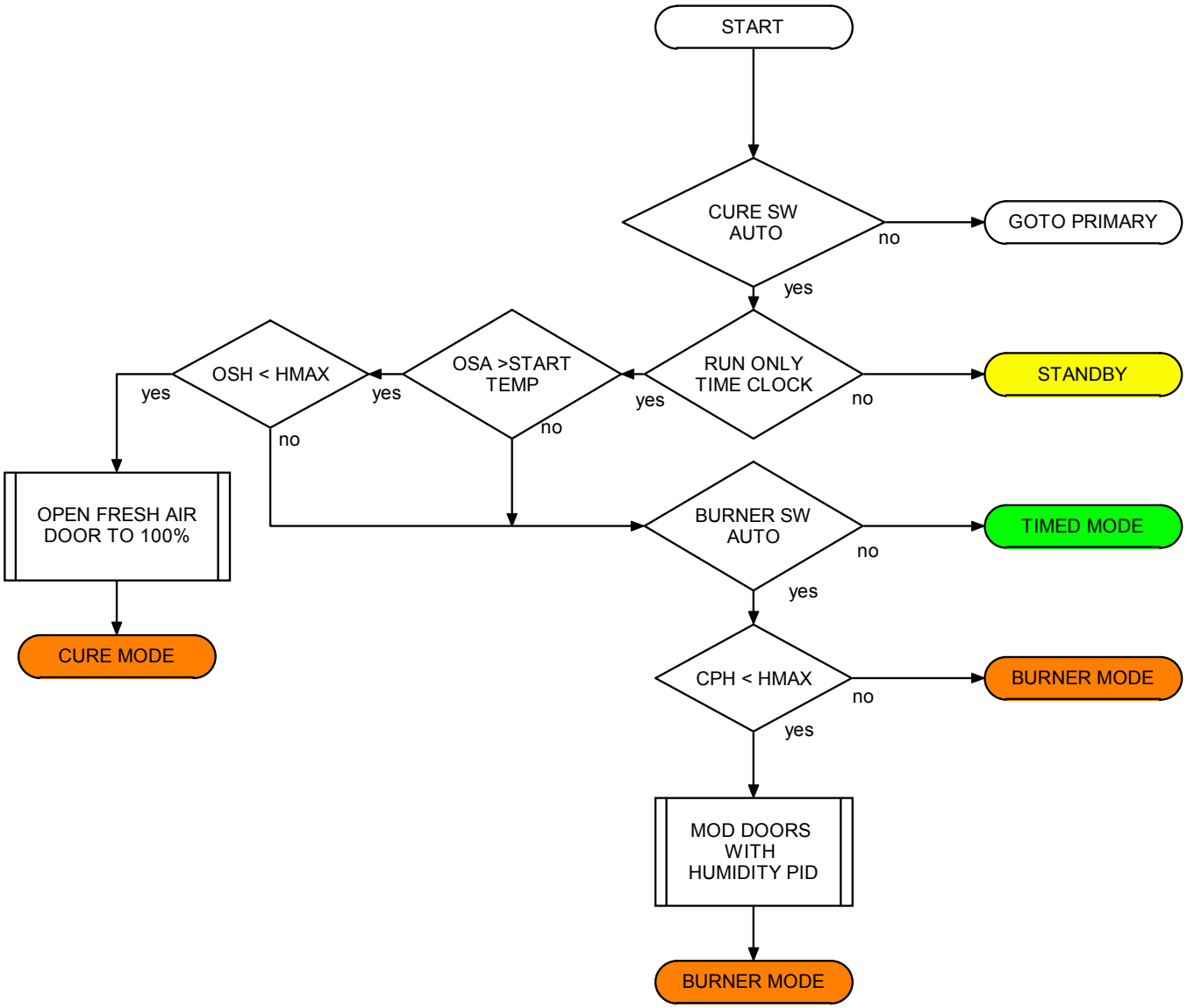
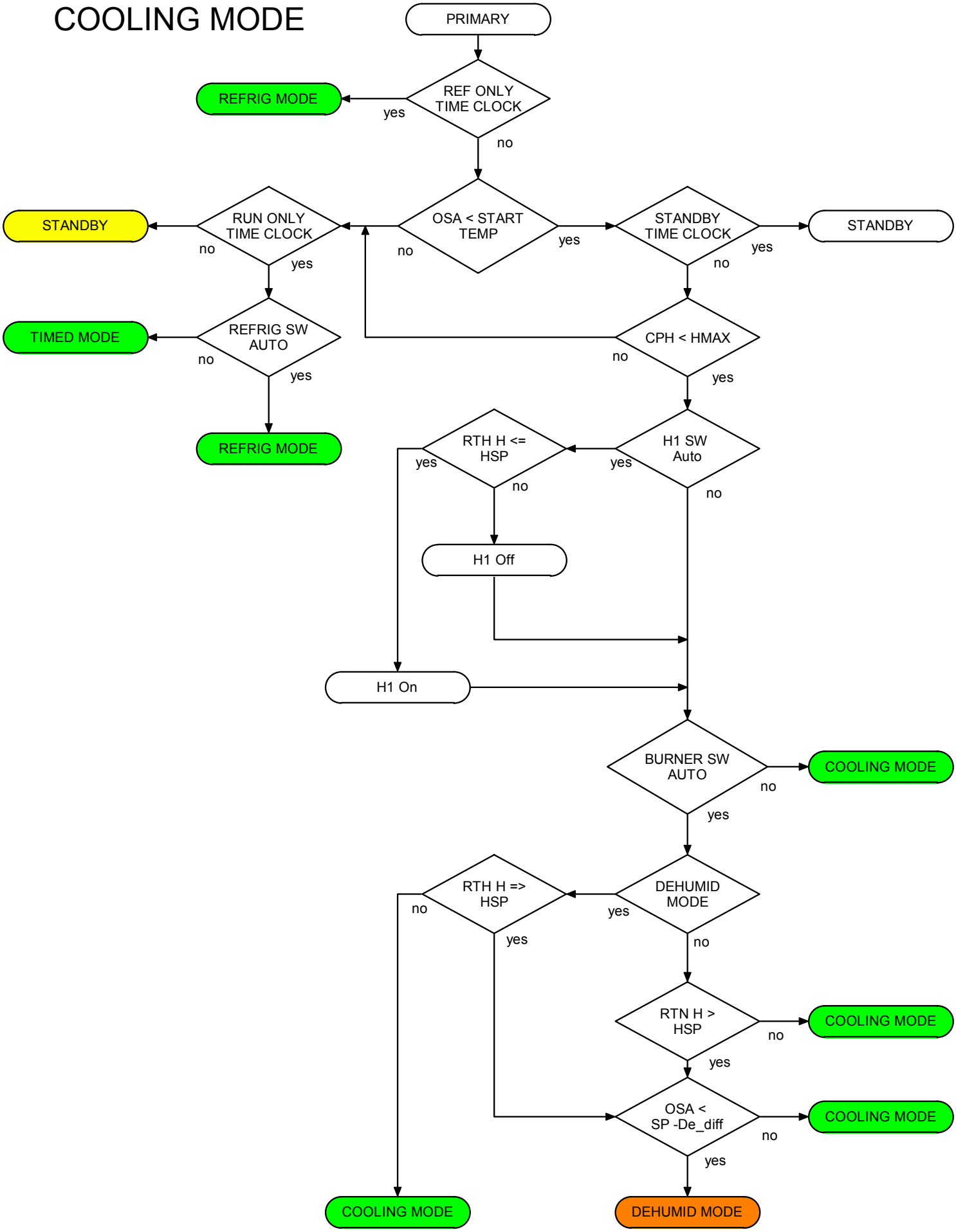
XT ONION FLOW CHART
ver 1.8 9-23-10

CURE MODE



COOLING MODE



The Onion program will not use a CO2 sensor. At this time, we will set the purge byte to zero.

The CO2 sensor will be replaced with a pile humidity sensor. Do the calculations and put the data in the CO2 ram spot.

The CO2 Setpoint will change to HMAX. Use the same flash address.

CPH is the calcualted Plenum Humidity. The CPH is the calculated humidity when you warm up the OSA to the plenum temperature. We will use the dbyte 37 in the GR string to report the CPH value. CPH will be calculated as we did before, in the old onion panels.

Heat on the Onion software will become the burner switch. We will need to use a douple pole 120vac relay on this ouput. One of the poles will provide the 120vac to the burner control. The other pole will be used to run the 0-20ma or 0-10vdc refrigeration output signal thru. The normally closed contract wil be used for the refrigeration, and the normally open will be run to the burn mod motor.

BURNER MODE this mode uses the refrigeration PID loop to modulate the 0-20ma or 0-10vdc refrigeration output to modulate the burner mod motor. The Burner SW would need to be turn on. The PID loop would also have to operate in the Heat direction.

MOD DOORS WITH HUMIDITY PID if the CPH < HMAX it means the outside humidity is dry enough to be used. The humidity Setpoint should be set for the desired humiidty. If the plenumhumidity is higher than the Setpoint, then the fresh air doors should open to lower the humidity. The PID loop should modulate the doors to maintain the desired humidity.

CURE MODE the cure mode will use natual air when it is hot enough and dry enough. The CURE switch would need to be turned on.

MOD DOORS WITH HEAT PID this is used in the CURE mode, and simply reveres the PID loop to a HEAT mode. The doors will open when plenum temp is below the Setpoint.

DEHUMID MODE the burner output is set to a preset firing rate. The doors continue where they were to control plenum temperature to Setpoint. The preset firing rate will cause the doors to open more bring in fresh dry air.

De_diff is the dehumid differential, this is E2 memeory CO2_Diff

Burner_Start this is the start percentage for the burner. When first starting the burner, the output should go to the Burner_Start position for 120 seconds. This is the old E2 memory CO2_RAS

Burner_Preset this is the Dehumid firing percent for the Burner. This is the E2 memory CO2_update.

The Burner Switch is the potato Heat switch.

The Cure Switch is the Aux 2 switch.