CHAPTER 4

TEST OPERATION & CONTROL

Veneer drying test operation and control can be separated to steps as control follows:

1) Select the sample of green-fresh veneer sheets which are in good condition. The samples should be suitable size of about 250 mm. wide, 250 mm. long. The thickness of veneer is 1.5 and 2.0 mm.. Size, weight, moisture content of each sample and air properties, ambient temperature and relative humidity, has to be recorded before proceeding further steps.

2) Start up the dryer: turn no electric fan and open steam supplied valve to warm up the dryer, check air temperature at air ventilator until the dryer come to steady state, and adjust LPG regulator supplied valve to make the air temperature inside the dryer to be 60 ^{o}C.

3) Turn on the electric motor to drive the conveyors and feed a sample of veneer into the dryer. Setting speed of conveyor to 13.583 m/s. Starting stop watch to take resident time of veneer in dryer.

4) When the sample passed through the dryer, check moisture content of veneer

5) Do the same procedure from 1 to 4 until moisture content of sample is 8 %

6) During test operation, check also relative humidity of air inside and outside the dryer and control temperature inside the dryer to be constant at 60 ^{o}C.

7) Adjust LPG regulator to heat up temperature inside the dryer with 10 ^{o}C each step until the temperature is 100 ^{o}C.

8) At each step of temperature, record the data as same as listed in item 3) to 6).

9) Do the same procedure by varying speed of conveyor to 18.111 m/s and 27.167 m/s.

10) Test also the same procedure by using veneer 2.0 mm. thickness also record the same data as doing with veneer 1.5 mm. thickness.

11) Analyst all recorded data to determine moisture content of sample and drying rate of each condition of testing.