Use of Heat Chambers

- Heat chambers shall use an appropriate number of probes to accurately measure the temperature conditions in the chamber. AWIS requires at least 3 probes in order ensure all cold spots in the chamber reach the appropriate temperature.

- Chamber loads must reach a temperature of 140 degrees for at least 30 consecutive minutes during the cycle. If during the cycle the temperature drops below 140 degrees, the time must restart for an additional 30 minutes until a continuous 30 minutes have been reached

- Chamber charts must be dated for the date of the cycle.

- If the 3 charts are on separate devices, the 3 charts need to be stored together for inspection.

- Probes (thermocouples) will be sealed with non-conductive material.

- Probes MUST ALWAYS be placed in the thickest effective components being heat treated, at least half of the depth of the effective thickness.

When Surrogate Blocks are used:

- Surrogate blocks must be larger than the thickest effective components being heat treated. This means if three 2x4's (1-1/2" thick) are nailed together, the surrogate must be at least 4-1/2" thick.

- The surrogate block must be free of large checks, splits or other defects that allow air to penetrate into the block. The block must be a similar species and moisture content of the material being heat treated.

- The probes (thermocouple) must be drilled into the block at least ½ of the depth of the effective thickness. For instance, if a 3-1/2x3-1/2-inch block is used, the hole and the tip of the thermocouple must be at least 1-3/4" deep in the block. The tip of the thermocouple in this case must be no closer that 1-3/4" from any edge of the block.

- Surrogate blocks must be placed in the wood being treated, not on top of or to the side of the wood.

- Surrogate blocks must be equal to or cooler in temperature than the coolest lumber being heat treated at the start of the HT cycle. If running multiple cycles in a day, surrogate blocks must be changed between loads.

- All personnel involved in the heat-treating process should be well versed in all of these practices.

- Failure of a facility to adequately follow all of the above situations will result in the previously heat-treated material on site having to be held and re-heat treated.