# Dry Kiln Maintenance

**Presented by :**

**Jason Ayer**  **Hardwick Dry Kilns**

**Adam Collins**  **Pine Products Division**

**Cersosimo Lumber Company,Brattleboro VT**

---

Are Dry Kilns high maintenance or low maintenance?

Can good or bad kiln maintenance affect the quality of the lumber you dry?

As the lumber industry struggles, maintenance and repair is more important than ever. "An ounce of prevention is worth a pound of cure."

## What makes up a Dry Kiln

Fan Deck

Motors and Fan Controls

Baffles

Doors & Hangers

Steam and Spray Lines

Vents

Controls

---

By keeping the floor clean & free of debris, your wetbulb wicks and EMC wafers will perform better.

Keep your walls in good repair

To Paint or not to Paint?????

If your roof leaks, fix it!!!!

# Floors

**Concrete in dry kilns needs to be sealed. Not just the floor**

**Pressure wash the floor to get it clean**

**Everything must be ABSOLUTELY DRY before you seal the floor**

**Seal the floor with a generous coat of high grade polyurethane**

**Dry your sealant for at least 24 hours before you load the kiln**



# Fan Deck

**Make sure Fan Deck is in good shape**

**Motor mounts are solid**

**Check for loose or missing bolts, broken welds, etc.**

# Fans and Motors

**Grease motors & check bearings on a regular basis**

**Check fans**

  **-for loose blades**

  **- any sign of wear on the shrouds**



# Baffles

**Adjust all baffles so that they go up out of the way, but still will rest on the lumber when down.**

**Make sure cables & ropes are in good conditions.  Check and lube pulleys.**

**Plywood baffles???**

**Forklifts and baffles should never touch……or else.**

# Doors

A well sealed, well
insulated, kiln door
can save you  $$$$$$

The door gasket should seal
tight against the kiln

" The Small Cat Theory"



# Doors & Hangers

Should it take 4 people to
open 1 kiln door?

Is the door hanging up or is the
hanger not rolling properly?

Bad bearings in your door
hangers?

A little grease goes a long
way. If you don't have grease
fittings, install them.

# Doors & Hangers

**Hangers should hook securely into the door**

**Install plates so the hanger hooks the door properly. This will also help the door drop on the hooks properly.**



# Hooks

**Hooks hold gasket tight against the kiln**

**Doors should drop on the hooks without having to move the hanger or slam the door**





**If the hooks are broken, bent or missing, fix or replace them**

## Steam & Spray Lines

**Inspect Fin pipe for leaks**

**Installing unions and valves now saves time and effort 5 years down the road**

**Check traps year round…….  Not just  when it gets cold outside**



## Steam & Spray Valves

**Air operated valves are relatively low maintenance**

**Adjust so that valves open and close fully**

**Check for leaks with soapy water in a squirt bottle**

# Vents

**Make sure vents open all the way**

**Do your vents seal properly when closed?**

**Vents propped open???**

# Power Vents

**Inspect fan & motor mounts**

**Check to make sure that the vent inlets open and close properly**

## Controls

**Is your kiln doing what you tell it to do?**

**Several different types**



## Dry Bulbs & Wet Bulbs

**Solder in RTDs and seal with heat shrink.**

**Damaged  wires will give you bad RTD readings.**





**Keep wet bulb wicks and water boxes clean.**

## EMC Wafers

**Change EMC wafer at the beginning of every kiln charge**

**Clean deposits off wafer holders with Acetone**



## Samplewatch Platforms

**Very low maintenance  if properly cared for**

**Be gentle…..these are computer parts**



## Fan Drives

**Keep variable speed motor drives clean.**

**Vacuum out the Heat sink in the back of the drive….. DO NOT USE THE AIR COMPRESSOR**

# Spare Parts

**Spare Parts…… Is it cheaper to have them or cheaper not to have them?**

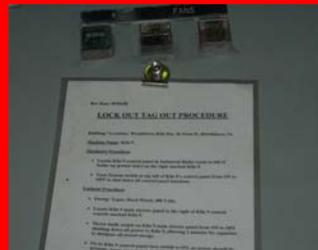**Is it worth having a kiln or boiler down because you don't have the right part?**

**Inventory!!!!! Don't buy parts that you already have on the shelf!!!!!!**



B-11

# Other Considerations

**Kiln Operators should be involved with the operation of the Boilers.**

**A good Lock Out/Tag Out program will keep people from being hurt.**

**"I'll fix it tommorow"   NO!!!!**



**Is the lumber in the kiln more important than 25 minutes of overtime?**

Questions……………

Comments…………..

GO SOX!!!!