

# **Kiln Design and Improved Moisture Content Uniformity**

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- All Eastern White Pine
- Lumber from Different Sawmills
- Variation of Moisture Content %



## **Existing Kilns**

- Wet Spots
  - Over-drying
  - Poor Air Flow
  - Lack of Sensors
- Large Temperature Drop
- Lack of Control

**What do we want in a kiln?**



## **Air Movement in Kiln**

- Air Speed



## Air Movement in Kiln

- Air Speed
- Baffling





## **Air Movement in Kiln**

- Air Speed
- Baffling
- Good Piling





## **Heating Requirements**

- Use New Technology



# Heating Requirements

- Use New Technology
- Multi-Zoning

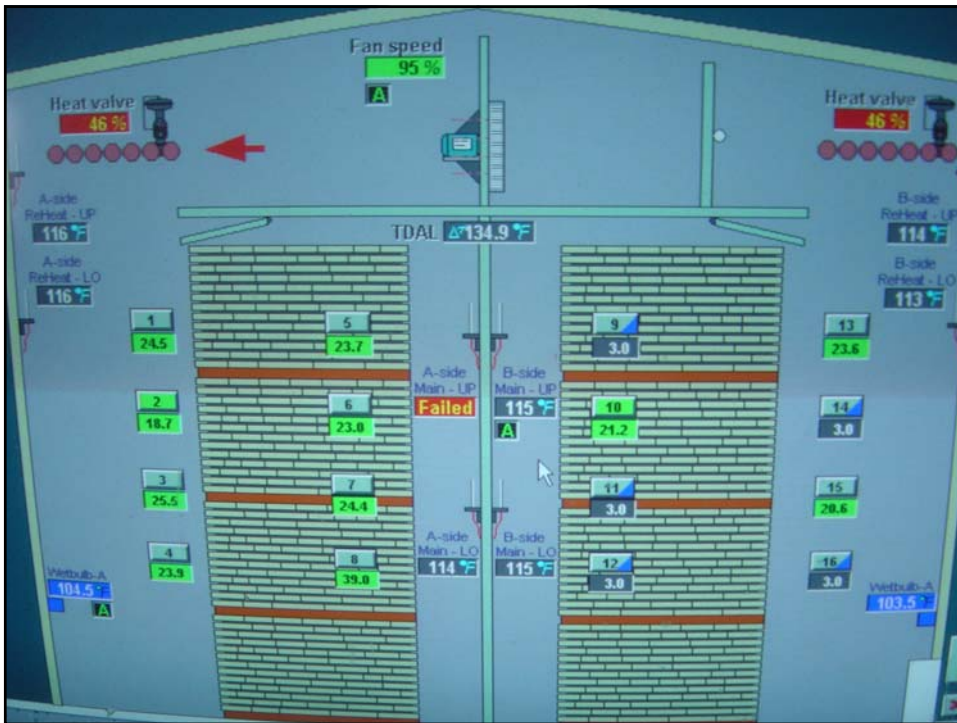




# Heating Requirements

- Use New Technology
  - Multi-Zoning
- Distribution of Heat





# Humidity Control

- Multiple Wet Bulbs





## Humidity Control

- Multiple Wet Bulbs
- Good Venting



## **Humidity Control**

- Multiple Wet Bulbs
  - Good Venting
- Good Spray System

## **Putting it Together**

- The Box





## **Putting it Together**

- The Box
- Control System



# Putting it Together

- The Box
- Control System
- Innovation





**The End**