

## **Kiln Drying Training Program - Essentials of Wood Drying (5 days)**

May 27<sup>th</sup> to May 31<sup>st</sup>, 2024

Centre for Advanced Wood Processing, Vancouver, BC

A comprehensive, hands-on introduction to drying technology taught from a practical, real-life perspective and backed with solid explanations into the scientific background of drying.

This highly-regarded workshop discusses the key processes and concepts involved in drying wood. Beginning with wood properties and moisture movement, students become familiar with kiln design considerations, drying schedules and kiln loading considerations. Other topics include drying with air, drying degrade, lumber storage and handling, control systems and power plants.

### **Why You Should Attend:**

- Improve drying uniformity
- Reduce degrade
- Reduce drying times
- Reduce energy usage
- Understand important design criteria for purchase and upgrade of new kilns

### **Who Should Attend:**

- Kiln managers and wood products business owners
- Supervisory & QC staff
- Maintenance personnel
- Kiln operators
- Others responsible for drying operations or requiring an understanding of drying in their professional capacity

## **Course Schedule**

### **Day 1**

#### **Wood Anatomy**

Strength and mechanical properties, variations in wood structure, moisture content

#### **Drying with Air**

Water in wood, its movement and flow, moisture gradients, shrinkage calculations

### **Day 2**

#### **Degrade**

Drying stress, casehardening, checking, splitting, honeycomb and warp - what they are, how they occur and how to prevent them

#### **Drying Schedules**

Key stages in drying schedules, how to assemble a schedule, equalizing, conditioning and other treatments

#### **Kiln Design/Performance Analysis**

Key elements - fans, baffles, power plants, structure and monitoring equipment

#### **Loading the Dry Kiln**

### Day 3

#### **Introduction to Power Plants**

Steam, hot water, electric, gas, butane, wood waste and heat transfer oil kilns, energy usage and characteristics

#### **Control Systems and Safety**

Proper control systems and safety measures are always important

#### **Moisture Meters**

Types of meters and their correct usage

#### **Boiler and Gas Safety**

Important aspects of boiler and gas safety are reviewed

### Day 4

#### **Kiln Structure and Design**

A review of the many kiln design options and variations, their advantages and disadvantages

#### **Kiln Assessment**

How to inspect and rate a kiln and its performance

#### **QC for Drying Operations**

### Day 5

#### **Review and Discussion Session**

Specific topics of relevance to workshop participants will be addressed (please notify us of the areas you'd like covered in this session two weeks prior to the start of the workshop)

#### **Final Written Exam**

### **Instructor**

**Dave Scholte** developed his understanding of lumber drying from the shop floor up. Dave first became involved in lumber drying in the late 70's. Becoming a back-up kiln operator for Sauder Moulding, Dave was introduced to the drying of high value shop-through-clear products. Dave then moved on to become Kiln Manager at Panabode Int. in Richmond, overseeing a range of industrial and shop programs. While at Panabode Dave worked with MacMillan Bloedel staff in the development of new custom programs. Dave has worked as a kiln drying consultant for many years and has chaired regional kiln drying associations. He has participated in numerous Kiln Drying seminars across Western North America, presenting papers at the Portland Wood Show, Forest Products Society, Kiln Drying seminar, and at the Wood Forums held in Vancouver. Dave holds a Masters in Training and Education, and specialises in workplace training.

### **Cost**

**\$1295 per person**

### **Registration and More Information**

Centre for Advanced Wood Processing

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