

December 1-3, 2015

Maritime College of Forest Technology, Fredericton, NB

# Spruce-Pine-Fir Kiln Operator Course

## *Quality Drying of S-P-F for Dimension Lumber and Other End Uses Conventional & High-Temperature*



This course will provide a thorough review of the basic principles involved in lumber drying. The course will progress from a presentation of the fundamentals of wood drying to the day-to-day operation of a dry kiln. Emphasis will be on drying 2-inch S-P-F for dimension lumber, however, time will be dedicated to discussing drying requirements or implications for products such as MSR, glulam, and finger-jointed lumber. Both conventional temperature (up to 190°F) and high temperature (up to 240°F) drying will be discussed.

### ► Who Should Attend?

The course is designed for new or experienced kiln operators, quality control personnel, and their immediate supervisors. It is also open to anyone else who feels they would benefit from a better understanding of the factors that affect a drying operations productivity and profitability.

### ► Course Instructors

- **Peter Garrahan**, well known expert wood drying scientist with over 30 years of experience in industrial drying systems and wood drying research. Peter is a regular instructor with kiln operator courses in various regions of Eastern Canada.
- **Marc Savard**, FPIInnovations, well known expert wood drying scientist with over 20 years' experience in research and testing on the drying of Eastern S-P-F. Marc regularly presents seminars and workshops on lumber drying.

### **Registration Fee - \$1,570.00 (Plus HST) (Estimated course fee)**

*Includes instructional material, Kiln Operator's Manual for Eastern Canada, handouts, daily refreshment breaks and lunch.*

### **Course enrolment is limited to 25 students.**

The full registration fee must be received prior to the course to guarantee your seat. Full refund if you cancel prior to **15 days** before the course start date. Late cancellations will be subject to a \$100 cancellation fee unless course becomes filled or registration is transferred to another individual from the same company.

The organizers reserve the right to cancel the course failing sufficient enrolment. In the event of course cancellation, all registration fees will be returned in full.

**Register by completing the attached form by November 16th, 2015.** *First come, first served basis.*

**For information, please contact:**

**Peter Robichaud**

(O) 902 897-6961 • (C) 902 899-6420  
probichaud@cwfc.org

**Barry Tupper**

(O) 902-681-6882 • (C) 902-300-3569  
barry.tupper@fpinnovations.ca



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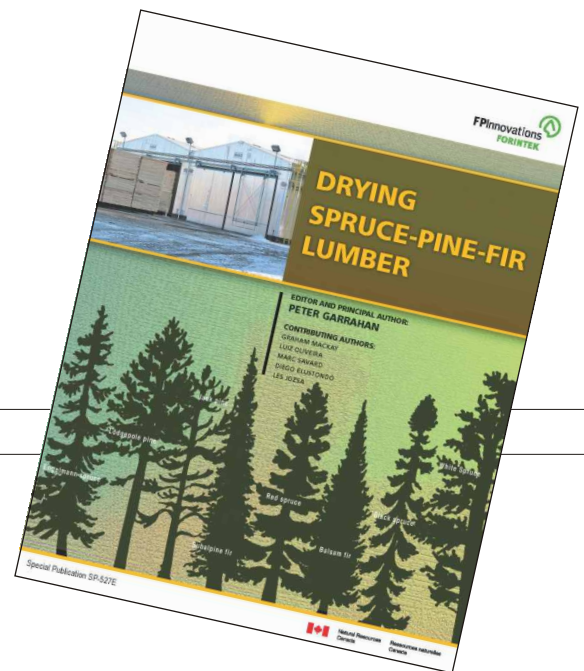
Quality Drying of S-P-F for Dimension Lumber and Other End Uses Conventional & High-Temperature



## COURSE DESCRIPTION

### Day 1

- Wood anatomy related to drying
- Wood moisture relations
- Role of relative humidity, temperature, and air flow in drying
- Defining moisture content and oven-dry test procedures
- Wet pockets in balsam fir
- Drying stresses, shrinkage, and other drying defects
- Theory of developing a drying schedule



### Day 2

- principal and use of DC-resistance moisture meters
- Principal and use of hand-held, power-loss moisture meters
- In-line moisture meters
- Drying characteristics of black spruce, white spruce, jack pine, and balsam fir
- Overview of drying alternatives (air drying, conventional kiln drying, high-temperature drying)
- Pre-sorting to improve productivity and quality
- Conventional and high-temperature drying schedules



### Day 3

- Kiln operation and maintenance
- Kiln controllers and kiln control strategies (*i.e.* TDAL, *exiting versus entering air control*)
- Air flow requirements
- Quality control techniques
- Economics of drying
- Heat treating as an option for export lumber



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### Registration Form

Last Name																First Name															
Company																															
Address																															
City																Province / State								Postal / Zip Code							
Telephone																Fax															
E-mail																															

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#### Fax completed form to:

**(902) 897-6976**

Canadian Woodlands Forum

**Registration due by  
November 16th, 2015**

*First come, first served basis.*

#### Payment Options

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##### Cheque:

Please make cheque payable to:

Canadian Woodlands Forum

**Mail to:** 20 Coupar Terrace, Truro, NS B2N 5L3

☐

##### Credit Card (Visa and MasterCard accepted):

Card Number

Expiration

Name as it appears on card (please print)

Cardholder's signature

#### For information, contact:

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**Barry Tupper**

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For Office Use Only: ID \_\_\_\_\_

Payment

Method

Deposit #

Initial