## Introduction to Lumber Dry Kiln Operations

Condensed Schedule Scheduled breaks and opportunities for questions are included

<u>Monday November 1, 2021</u>	Start: 12:00pm MST/1:00pm MDT/2:00pm CDT
12:00pm MST – 1:00pm MST	Orientation to the course. Importance of the lumber drying operation. Economics of the lumber drying operation. How wood cellular structure impacts warp, twist, and other drying defects. How lumber sawing accuracy impacts lumber quality. Importance of good air-dry yard practices.
1:00pm MST – 2:00pm MST	Tools and techniques for determining moisture content. Followed by calculation exercises. How to select and prepare lumber dry kiln sample boards. Determining moisture contents of the shell and the core of the sample boards.
Monday November 8, 2021	Start: 12:00pm MST/1:00pm CST
12:00pm MST – 1:00pm MST	Introduction to relative humidity, dry bulb, wet bulb, and equilibrium moisture content. Followed by calculation exercises. Introduction to the different types of lumber dry kilns.
1:00pm MST – 2:00pm MST	Fundamentals of dry kiln instrumentation and controls Safety considerations when working with lumber dry kilns and associated equipment, e.g. bandsaws, fork lifts, boilers. Overview of environmental regulations that may impact lumber drying operations.
Monday November 15, 2021	Start: 12:00pm MST/1:00pm CST
12:00pm MST – 1:00pm MST	Monitoring lumber quality and drying times. The different stages of kiln drying. Introduction to lumber drying schedules. Exercises on developing lumber dry kiln schedules.
1:00pm MST – 2:00pm MST	Identifying drying stresses. Phytosanitation guidelines and standards. Validating phytosanitation procedures.
Monday November 22, 2021	Start: 12:00pm MST/1:00pm CST
12:00pm MST – 1:00pm MST	In-depth discussion on dehumidification lumber dry kilns.

	Guest Presenters: <b>Elijah McCarty</b> , Sales Representative, Nyle Systems and <b>Henco Viljoen</b> , Sales Engineer, Nyle Systems. A 30-minute presentation on dehumidification dry kilns followed by questions and discussion
1:00pm MST – 2:00pm MST	In-depth discussion on vacuum lumber dry kiln systems. Guest Presenter: <b>Scott Lyon</b> , Forest Products Specialist, Wisconsin Department of Natural Resources. A 30-minute presentation on vacuum dry kilns followed by questions and discussion.