

WWPA HEAT TREATMENT CERTIFICATION PROGRAM FOR EXPORT

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Good morning. Back in 1995, Jeff Fantozzi from our Technical Staff addressed this meeting and outlined the newly implemented Heat Treatment Certification Program. This program is fully in place and for the past two years has been working very well in allowing WWPA mills continued access to European and Pacific Rim markets. Jeff did such a good job covering the details of the program, I'm running the risk of plowing some already cultivated ground. However, I would like to talk this morning about the basic structure of the program and how our mills have been using it. We developed this program in cooperation with the U.S. Animal and Plant Health Inspection Service, or APHIS.

This agency is responsible for inspecting American agricultural products and certifying that they meet plant health requirements. Like many government agencies today, APHIS has more responsibilities than it has manpower to adequately deal with its regulatory demands. As such, the agency has supported creating partnerships with industry groups to carry out its responsibilities. Our work with APHIS has been a great example of how such industry-government partnerships can work. The inspections required for heat treatment and kiln drying easily dovetail with our normal lumber grade inspection activities. The procedures we developed with APHIS give the agency the confidence their regulatory needs are being met. And since these procedures are similar to standard industry practices for lumber grade inspection, mills have not had to deal with the additional bureaucratic headaches that normally come with meeting new government regulations.

It's important to remember that the need for this certification stems from restrictions on lumber developed overseas. Twenty years ago, the European Community adopted regulations intended to prevent the importation of unwanted insects or plant diseases. For lumber, these regulations translated into restrictions on bark on lumber. In 1986, WWPA and APHIS developed a program to certify that Western lumber entering European countries was free of bark. Four years later, the restrictions were expanded to cover grub holes in lumber.

In subsequent years, the Europeans determined the bark and grub hole regulations did not provide adequate protection against imported insects. So in 1993, the EU issued a decision requiring all imported lumber to be heat treated to a core temperature of 56 degrees Celsius for 30 minutes. Once again, we worked with APHIS to develop a mill certification program to meet the new restrictions. Today, our Heat Treatment Certification Using a Kiln Facility program has evolved into a two-fold program covering heat treated and kiln dried lumber destined for export. It not only covers product exported to Europe, but is also being used for lumber going to Pacific Rim countries, such as Korea.

Depending on the destination country, the WWPA certificates can be accepted as official export documents or be used to gain federal phytosanitary certificates from APHIS. But in both cases, the certificates are based on our framework of inspections and documentation. The Heat Treatment/Kiln Drying program was created to be a mill certificate program, with oversight by WWPA and APHIS. Much like our grade inspection activities, we work with mills to make sure qualified personnel are conducting the necessary inspections of the lumber and required procedures are followed. Any mill with kiln facilities using WWPA grading services may apply to issue certificates. The mill must sign an agreement that specifies the conditions for authorizing mill personnel to issue certificates and outlines the responsibilities of the mill and WWPA.

The agreement notes that if the lumber does not meet the heat treatment/kiln drying requirements, the mill will be responsible for the costs of fumigation or other corrective measures. It may also lead to revocation of the mill's authorization to issue certificates. Once we get the signed agreement, we evaluate the mill's facilities. For mills applying for KD certification, a WWPA Lumber Inspector will review the drying schedules to verify the 56°C standard is met. Our experience has shown that typical drying schedules used for Western lumber 2 inches to 4 inches thick are well above this temperature.

The process for mills seeking heat treatment certification is more involved. Here, we must certify the kilns through testing and develop the necessary schedules. We use temperature sensors, (basically thermocouples in the core of selected pieces of lumber) and a zoning system to certify a kiln. The kiln is divided into 12 equal zones, three zones along the length, two zones in height and two zones in width. One sensor is placed in the interior of the bundle near the center of each zone.

The kiln is then heated until all sensors reach the 56-degree core temperature and are maintained for 30 minutes. From there, a heat treatment schedule is created based on the maximum time required for the last sensor to reach the temperature standard and the lowest air temperatures (either the entry air or exiting air) recorded by existing kiln temperature sensors. The schedules can be used for lumber the same thickness as the test charges, or for thinner lumber. For thicker lumber, separate schedules are required, developed through the same procedures. Should operating conditions in the kiln change or new equipment added, the kiln may have to be recertified.

Once the mill agreement and kiln tests are completed, mill personnel are authorized to issue certificates. Under the program, lumber graders assigned to inspect export shipments and supervisory personnel with direct responsibility for such inspections can be authorized to issue certificates. WWPA provides the forms to mills for documenting the heat treatment or kiln drying. The form is filled out for the shipment, signed by the authorized mill personnel, then forwarded to WWPA for final approval. After a review of the form, we will immediately return it to the mill or, if requested, forward it according to the mill's instructions.

We also keep a file of the approved forms, by both mill and certificate number. Should the documentation be lost in transit, WWPA can issue a copy and attest to its authenticity. Shipments covered under a certificate must also be marked

accordingly. We provide stencils, for both KD and heat treated material, which must be placed on the upper right corner of one side of the bundle. These stencils include the WWPA grade logo as well as the mill number. During the course of our regular mill visits, Association lumber inspectors check, if available, lumber covered by certificates. They also check kiln records at those mills using heat treatment certificates. The mill's files of documentation may also be inspected.

APHIS inspectors may also make checks at the mills. However, they have come to rely on the integrity of our certification program and inspection activities. Currently, we have 49 mills authorized under the kiln drying certification program. Of those, two mills have had their kilns approved for issuing heat treatment certification. These numbers have remained steady over the past couple of years.

Some of the initial concerns about whether heat treating would cause degrade in the wood have not come to pass. Actually, we've discovered the heat treating has caused little degrade, even in thicker sizes. Many of the heat treating schedules used by mills are run with a minimum web bulb depression. We've learned that creating a more humid environment in the kilns for heat treating allows mills to reach the core temperatures while minimizing the drying defects.

Still, as you can see from our mill numbers, it's clear that international markets are shifting more towards buying -- or even requiring -- kiln dried lumber. The plant health regulations are one reason behind this shift, but there are other market-related reasons as well. U.S. lumber exports have been on a downward trend over the past 10 years and we don't see any significant changes in that direction in the near future. In 1989, American lumber exports totaled 3.3 billion board feet. Last year, volumes to international markets totaled just 1.9 billion board feet and this year we expect exports to shrink to about 1.7 billion board feet.

This decline parallels the reductions in Western lumber production and sawmill capacity prompted by the lock-up of federal timber during the 1990s. Ten years ago, this region was producing upwards of 24 billion board feet. Last year, with demand just shy of an all-time record, Western production was 16.6 billion board feet. These decreases, coupled with slower economies in major foreign markets such as Japan and Europe, has kept more of our lumber here on our shores. In 1989, almost 9 percent of U.S. production was shipped abroad. For the year just completed, less than 6 percent of our lumber output was exported. As the volumes changed, so, too have the types of lumber products exported changed. Today, it is difficult, if not impossible to compete in most foreign markets with commodity products such as dimension. Other than Japan, where we have been successful in expanding acceptance for framing lumber, exports have become more of a high-end product market. Of course, these higher grade products, such as clears and selects, are traditionally kiln dried.

This means kiln drying will continue to be an important part of American lumber exports in the future. The change is already reflected in our international lumber marketing. Many of our promotions and advertising in Europe, Japan and Korea are focused on U.S. lumber for use in interiors, for doors and windows, and for furniture.

Combined with a growing preference for kiln-dried products in the domestic market, it's certain that the kilns in your sawmill operations can add more value to the products you produce. And if you hope to compete in foreign markets, an ability to kiln dry or heat treat will become a necessity.