

# FOREST PRODUCTS FEATURE ARTICLES

## CHANGING REQUIREMENTS FOR WOOD PACKING MATERIAL

*By Michael Hicks, Trade Policy Coordinator*

### THE EUROPEAN UNION

On October 1, 2001, the European Union (EU) adopted emergency measures requiring all new and used coniferous (e.g. pine) pallets, boxes, and other forms of wood packing material (WPM) originating in the United States, Canada, China, or Japan be treated and marked, to prevent the introduction of the pinewood nematode and its vectors.

The EU measures require that new and used coniferous wood packing material originating from the designated countries be:

- C heat treated to a minimum core temperature of 56° C for at least 30 minutes in a closed chamber or kiln which has been tested, evaluated and approved officially for this purpose; or
- C pressure treated with an approved chemical in accordance with an officially recognized technical specification; or
- C fumigated with an approved chemical in accordance with an officially recognized technical specification.

WPM is required to be marked in such a way as to enable the identification of the treater and the location of treatment. Only the heat treatment program is required to be an official program and utilize an official mark. Nevertheless, USDA's Animal and Plant Health Inspection Service (APHIS), in

consultation with industry, has developed recommended marks to facilitate the recognition of (and entry of) pressure treated and fumigated wood packing material (These marks have been approved by the EU and its member states).

Information on the marks, along with supporting information pertaining to WPM to the EU, can be found on the APHIS web site [www.aphis.usda.gov/ppq/swp/eunmwp.html](http://www.aphis.usda.gov/ppq/swp/eunmwp.html).

### THE AMERICAN LUMBER STANDARD COMMITTEE

The American Lumber Standards Committee (ALSC), at the request of APHIS, is overseeing the U.S. program for heat treatment of WPM. The program requires on-site inspections of WPM manufacturing facilities to verify compliance by the following ten inspection agencies accredited by ALSC:

- C California Lumber Inspection Service  
Ph: (209) 334-6956
- C National Hardwood Lumber Association. Ph: (901) 377-1818
- C Northeastern Lumber Manufacturers Association  
Ph: (207) 829-6901
- C Northern Softwood Lumber Bureau  
Ph: (207) 829-6901
- C Pacific Lumber Inspection Bureau  
Ph: (253) 835-3344
- C Package Research Laboratory  
Ph: (973) 627-4405
- C The Packaging Department  
Ph: (952) 967-9400
- C Redwood Inspection Service  
Ph: (415) 382-0662
- C Timber Products Inspection  
Ph: (770) 922-8000
- C West Coast Lumber Inspection

Bureau. Ph: (503) 639-0651

As of January 2002, over 1,100 WPM manufacturing facilities were participating in the U.S. program.

### **REQUIREMENTS IN THE UNITED STATES AND ELSEWHERE**

The EU is not the only region or country to regulate WPM. Australia, Brazil, China, and the United States have all put in place measures in recent years to regulate WPM. Argentina is most recent country to indicate that it intends to further regulate WPM.

The United States is currently combating outbreaks of the Asian longhorned beetle in New York and Illinois and the European pine shoot beetle in various northern states. Regulatory action is underway in the United States that is expected to lead to further changes in U.S. entry requirements. APHIS is working on a Pest Risk Reduction Analysis analyzing the efficacy of various treatment methods for WPM. The analysis may then be followed by a proposed rule and a final rule. A proposed rule is still many months off, and it may be years before a final rule is in place. With the exception of hardwood WPM from China and Hong Kong, which is subject to specific requirements, the United States is currently relying on self-declaration by importers that WPM is free of bark and apparently free of insects. APHIS recorded over 200 interceptions of pests in WPM (much of it crating material and dunnage) from the EU in 2001.

### **THE INTERNATIONAL PLANT PROTECTION CONVENTION**

Because of the proliferation of national standards, the International Plant Protection Convention (IPPC) has been working to develop an international standard that would apply to all new and used coniferous and non-coniferous WPM and dunnage. The IPPC is a multilateral treaty operating under the Director-General of the Food and Agriculture Organization of the United Nations (FAO). One hundred sixteen countries, including the United States, are contracting parties to the IPPC.

IPPC's Interim Standards Committee approved a draft standard for WPM in November 2001. The proposed standard is scheduled to be taken up at the Fourth Session of the Interim Commission for Phytosanitary Measures (the governing body of the IPPC) when it meets March 11-15, 2002, in Rome. It is unclear at this time if the standard will be adopted. If a consensus is not reached at the March meeting, consideration of the standard may be deferred to 2003.

Even if the standard is adopted at the March meeting, it is unclear when implementation would begin. Countries would need time to put in place the necessary legislation to implement the new standard. The EU and Canada are expected to move very quickly, while other countries are likely to move much slower. Some countries may choose not to implement the new standard since is not required implementation of such standards. However, countries are encouraged to permit the entry of WPM meeting the standard "without further requirements except where it is determined through interceptions and/or Pest Risk Assessments that specific quarantine pests associated with certain types of wood

packing material from specific sources require more rigorous measures.”

### **WHAT WILL THE NEW STANDARD REQUIRE?**

The new standard provides globally accepted measures that, if applied to WPM, are intended to eliminate or minimize the introduction and spread of most invasive pests. The measures can be applied without conducting the Pest Risk Assessments, and they are not subject to challenge within the World Trade Organization. The new standard recognizes two treatment methods for treating WPM: Heat treatment (HT) and methyl bromide fumigation. It also stipulates that WPM should be made from debarked wood. Kiln drying, chemical pressure impregnation, or other treatments can qualify as HT treatment to the extent that these processes meet HT specifications, (i.e., a core temperature of 56° C for a minimum of 30 minutes). Fumigation with phosphine and irradiation are put forth as examples of possible future treatment methods, pending additional research to verify the efficacy of these treatment methods.

As with current EU measures, the draft IPPC standard specifies the use of an approved and internationally verifiable mark to certify that the wood packaging is in compliance with one of the approved measures. U.S. adoption of the standard may necessitate that APHIS develop an official fumigation program. Current EU measures require fumigation with an approved chemical in accordance with an officially recognized technical specification, but not an official program.

### **WILL I BE AFFECTED BY THE NEW STANDARD?**

A significant proportion of the goods shipped internationally are shipped in wooden containers or on some type of wooden platform, very often pallets. It is estimated that over 50 percent of the \$2 trillion worth of goods that entered and left the United States in 2000 used some form of WPM.

According to the National Wooden Pallet and Container Association, there were an estimated 454 million pallets produced in the United States in 1999, consuming upward of 7 billion board feet of lumber. There are an estimated 2 billion wooden pallets in use in the United States at this time. Forty percent of the 12 billion board feet of hardwood lumber produced annually in the United States is used in the manufacture of wood packaging, as well as a significant portion of softwood lumber and panel products. Another 225 million pallets were recycled (i.e., repaired and put back into service) last year. It is estimated that over 95 percent of the pallets produced in 1999 were made from either hardwood lumber or softwood lumber or some combination of both.

As a freight forwarder, an exporter, an importer, a WPM manufacturer, or a lumber producer involved directly or indirectly in international trade, you will be affected in some way if the new standards are adopted. Hardwood lumber producers and manufacturers of WPM that rely on hardwoods are likely to be impacted more than their counterparts in the softwood sector. Many of the WPM manufacturers that utilize softwood lumber are already

under the EU program, and, as such, already operating have in place the necessary systems to demonstrate compliance. Moreover, most softwood lumber is kiln-dried, with the temperatures attained in the kiln-drying process far exceeding those required for heat treatment. However, that is not the case for hardwood lumber. Much of the hardwood lumber used in the manufacture of WPM is either air-dried or dried in low temperature kilns (both of which would be noncompliant). Many hardwood sawmills do not have drying facilities or use their kilns to dry only higher grades of hardwoods.

In the latest draft of the proposed international standard, the IPPC stipulates that WPM be made from debarked wood. This provision is likely to cause problems for exporters and importers that utilize wood crating or pallets. Although, the standard recognizes that "debarking does not necessarily make the wood bark-free," it leaves it up to plant health officials to decide whether the WPM (perhaps containing some bark) has in fact been manufactured from debarked wood. The debarking requirement is also likely to cause problems for lumber producers and manufacturers of WPM. Hardwood lumber producers, and those who use hardwood lumber in the manufacture of WPM, could be significantly affected. According to the National Hardwood Lumber Association, upwards of 25 percent of the hardwood lumber produced may have some amount of bark on it. Some of the bark is residual bark, left over from the debarking process and not removed in the edging process. Hardwood logs are also more likely than softwood logs not to be debarked prior to sawing. There are an estimated 5,000

hardwood lumber sawmills in the United States and many of the mills particularly those producing less than 3 million board feet annually, do not have debarkers.

The debarking requirement, added at the request of the European Union and several other countries, came as a surprise to many experts. The debarking issue had been discussed early on and it was generally decided there was no scientific basis for the inclusion of this requirement. If the wood has been treated or fumigated, the presence of patches of bark is largely irrelevant. Organisms that one would normally consider to be invasive pests of living forests will not normally re-infest debarked wood or wood with bark which does not have living cambial tissue. The U.S. and Canadian industries are strongly opposed to the inclusion of the debarking requirement.

#### **WHO SHOULD I CONTACT FOR ADDITIONAL INFORMATION?**

Questions concerning the pending requirements should be directed to USDA/APHIS (301) 734-8537). Additional information can also be found on the APHIS' web site at [www.aphis.usda.gov/ppq/pim/standards](http://www.aphis.usda.gov/ppq/pim/standards). For information concerning the U.S. Heat Treatment program, please contact the American Lumber Standard Committee. Ph: (301) 972-1700 or one of the 10 accredited inspection agencies.

#### **SUCCESS STORY- GLUE LAMINATED TIMBERS IN TAIWAN** *By Doreen Chen-Moulec, Agricultural Marketing Specialist*

U.S. glue laminated timbers were used in

the first long-span wooden bridge recently constructed in Taiwan. The bridge, 1.8 meters wide and 40 meters long, is the longest wooden bridge constructed in Taiwan thus far. It will be used as a pedestrian crossing in the Shikong tourism area; an area near the epicenter of the September 1999 earthquake. Western Wood Structures of Portland, Oregon, provided the bridge package and Yi-Tsai Wood Co., Ltd and Yang's Designing and Planning Company provided the construction and importation. The Douglas-fir glue laminated timbers were manufactured by American Laminators, Inc. of Swisshome, Oregon (a member of the APA-The Engineered Wood Association). The timbers were treated with a wood preservative by Permapost Treaters (a member of the Western Wood Preservers Institute, a Softwood Export Council (SEC) member) in Hillsboro, Oregon. The bridge construction cost was approximately \$140,000, including labor and materials. The design firm reported substantial labor cost savings in using the pre-formed wood beams.

This bridge construction was made possible by the successful efforts and coordination among the U.S. forest product cooperators, APA-The Engineered Wood Association (APA) and the Softwood Export Council (SEC); the State of Idaho's Trade Office in Asia; the U.S. Agricultural Trade Office (ATO) of Taipei, and private industry, in conjunction with the USDA's Foreign Agricultural Service Foreign Market Development (FMD) program.

Yang's Design and Planning participated in a trade mission held in November 2000, sponsored by the State of Idaho and the U.S.

Agricultural Trade Office in Taipei. As part of that mission, participants traveled to the U.S. Pacific Northwest and met with manufacturers of glue laminated beams. Participants also toured public structures made from timbers in Washington, Oregon, and Idaho. APA presented material on the use of glue laminated timbers in commercial construction; the SEC presented on foreign market development; the Western Wood Products Association (an SEC member), discussed carpentry techniques related to glue laminated beams and structural wood; and the American Institute of Timber Construction educated the trade mission participants on fire rating standards for glue laminated timbers. In May 2001, 124 individuals from Taiwan's industry and government, attended a seminar sponsored by APA, the Western Wood Products Association, and SEC on the attributes and durability of timber and wood-frame structures.

Construction of the glue laminated timber bridge is indicative of an upward trend in exports of fabricated structural members to Taiwan. U.S. exports of fabricated structural members have increased from \$8,000 in 2000 to \$568,000 in 2001. The outlook for increased export sales of softwood building products to Taiwan also looks promising. Taiwanese building codes and regulations are changing to allow more use of glue laminated timbers and the Taiwanese Construction Planning Association is helping to promote the use of wood-frame construction technology to rebuild damaged homes after the September 1999 earthquake. As demonstrated by the construction of the wooden Shikong bridge, the U.S. industry marketing presence has proven beneficial for glue laminated timber

exports to Taiwan.

tariff reductions will be implemented annually until the average nominal tariff rate for agricultural products reaches 12.86 percent in 2004.

**TAIWAN'S ACCESSION TO THE WORLD TRADE ORGANIZATION**  
*By Tony Halstead, Agricultural Economist*

On January 1, 2002, Taiwan acceded to the World Trade Organization (WTO) under the nomenclature of Chinese Taipei. Upon WTO accession, Taiwan's average nominal tariff rate for agricultural products was lowered from 20.02 percent to 14.01 percent (excluding products subject to

With decreasing tariffs, imported products will become more competitive. By the same measure, market liberalization will increase competition from third country suppliers. As Taiwan's political and economic relationship with China evolves, restrictions on certain products will likely be removed. Although many products from China are price-competitive, Taiwan's imports from China may be limited in the short-run due to a lack of official contact between the two members' quarantine services. Also, Taiwan has yet to determine whether to fully extend Most-Favored-Nation status to China. Therefore, products from the United States previously disadvantaged by the tariff schedule may now be price-competitive.

**Taiwan's Bound Rate For Wood Products**

HS CODE	CATEGORY	AT DATE OF ACCESSION	FINAL BOUND RATE
4405	Wood Wool/Flour	2-4%	0
4410	Particle Board	0-3%	0
4411	Fiberboard	3%	0
4412	Plywood	5-17%	0-12.5%
Various	All Other Categories in Chapter 44	0-2%	0

**REDUCED TARIFFS FOR WOOD PRODUCTS**

Prior to WTO accession, Taiwan's bound rate-of-duty for solid wood products (Chapter 44 of the Harmonized Tariff Schedule) ranged from 0 to 17 percent, although most product categories had a

specific import duties and quotas). Staged

bound rate of zero. Following accession,

bound rates will be reduced to zero for all wood products except for some types of plywood. Unlike other sectors of the wood industry, Taiwan was reluctant to reduce tariffs for plywood. Because plywood is the most heavily protected sector of the wood industry, bound rates ranged from 5 to 17 percent prior to accession. The final bound rates for plywood will range from 0 to 12.5 percent.

#### **OPPORTUNITY FOR U.S. PLYWOOD**

U.S. exports of softwood plywood (HS Code 441219) could increase significantly following Taiwan's accession since the final bound rate for these products will be zero. Other types of plywood, such as those

containing at least one outer ply of tropical wood (HS Code 441213) or at least one outer ply of non-coniferous wood (HS Code 441214), were previously imported into Taiwan in large volumes. Because the final bound rate for these two types of plywood will range between 8.5 percent and 12.5 percent, a shift towards importing more plywood of HS Code 441219 will likely occur. Because many of the uses for plywood in Taiwan are interchangeable between tropical, coniferous and non-coniferous, a bound rate of zero for softwood plywood will be extremely beneficial for U.S. exports of these products.

## Taiwan's Bound Rate of Duty Imports

HS CODE	PLYWOOD DESCRIPTION	BEFORE ACCESSION	AFTER ACCESSION	Millions of US Dollars			
				1998	1999	2000	2001 EST.
441213	With at least 1 outer ply of tropical wood	14-17%	8.5-12.5%	\$171	\$100	\$130	\$87
441214	With at least 1 outer ply of non-coniferous wood	14-17%	8.5-12.5%	\$5	\$17	\$20	\$8
441219	With both outer piles of coniferous wood	7-9.2%	0	\$6	\$3	\$7	\$10
441222	With at least 1 ply of tropical wood	17%	12.5%	\$27	\$18	\$20	\$13
441229	With at least 1 outer ply of non-coniferous wood	17%	12.5%	\$12	\$13	\$8	\$6
441292	With at least 1 ply of tropical wood	5-17%	0-12.5%	\$0	\$1	\$4	\$4
Various	Other Plywood	0-4%	0	\$1	\$1	\$2	\$2
<b>TOTAL PLYWOOD</b>				<b>\$222</b>	<b>\$155</b>	<b>\$192</b>	<b>\$129</b>
Source of Data: Taiwan Directorate General of Customs							

### TRENDS AND GROWTH IN BRITISH CONSTRUCTION PRESENT OPPORTUNITIES FOR U.S. WOOD PRODUCTS

*By William Bomersheim, Agricultural Marketing Specialist*

The construction sector accounts for as much as 60 percent of all wood consumed in the United Kingdom. Although the majority of Great Britain's demand is satisfied by the Nordic and Baltic countries<sup>1</sup>,

<sup>1</sup>The U.K. imported over \$890 million of solid wood products from Sweden, Finland, and Norway in 2000, and \$417 million from Estonia, Latvia, and Lithuania. The U.K. imported \$273 million from the United States in 2000.

increasing construction activity and emerging trends offer growth opportunities for U.S. wood product suppliers.

British construction output has been rising steadily over the last several years.

According to the UK Department of Environment, Transport and Regions, construction output in Great Britain amounted to over \$111 billion in 2000, up from \$84 billion in 1995. New housing starts accounted for a significant portion of the construction output, as annual housing starts were between 140,000 and 180,000 over this period.

However, nearly one half of all construction activity in the UK is related to repair, maintenance, and improvement work.

Over 40 percent of British housing stock was built before 1945, while only 14 percent was built after 1984. As a result, the demand for maintenance and improvement is increasing each year.



<b>U.K. Construction Spending</b>	<b>Percent</b>
Repair, Maintenance, & Improvement	46
New Industrial and Commercial Buildings	24
New Residential (private)	12
Infrastructure Projects	9
Other Public Sector Projects	9

In addition, demographic trends indicate that although the total population will remain stable, the number of households will increase from the current 20.7 million to 24 million by 2021.

In the near term, UK officials forecast that annual housing starts, buoyed by low interest rates and continued GDP growth, will rise to 188,000 units by 2005. Public sector spending is also expected to increase as analysts anticipate net capital spending by the public sector to rise from £3.2 billion (\$4.6 billion) in 1999 to £18 billion (\$25.6 billion) by 2004. Public sector expenditures have already increased as orders for new schools, colleges and universities, health-sector buildings, and office buildings have risen between 25 and 50 percent in 2001.

### **Increased Opportunities for Wood**

Increased construction activity is resulting in increased opportunities for wood. Although the vast majority of construction continues to be brick and block

construction<sup>2</sup>, significant wood components are associated with all types of construction.

Each new home construction offers a number of opportunities for U.S. exporters.

In British homes, roofs are commonly constructed of softwood prefabricated trusses and tiling battens. Treated softwood is a preferred option for window frames in new homes and is growing in outdoor decking. Upper floors are often constructed of wooden joists and oriented strand board floor decking. A variety of solid timbers and panel products are used for interior doors, and a large proportion of exterior doors are made of solid wood. Staircases typically utilize solid wood and some panel products. Opportunities for wood molding abound throughout each new home.

In addition, furniture demand is directly linked to new home construction and remodeling, as owners often upgrade furniture when moving to a new home.

Although wood use is less intense in the non-residential sector, wood products are often used in rafters, joists, flooring, and internal walls.

Several other trends also favor increased wood use in British construction. Recent changes in building regulations have placed increasing demand on builders to meet new energy efficiency targets. While wood frame and prefabricated wood building systems can readily achieve the energy savings targets, traditional brick and block construction often does not.

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<sup>2</sup>Only ten percent of new homes in the U.K. are made with a wood frame.

In addition, intense competition has led to an increase in off-site and prefabricated production. The development of new engineered wood products, coupled with a shortage of skilled labor has given prefabricated builders an edge. Increasingly, factory built components such as roof trusses, floor systems, wall components and entire housing packages are being deployed at British construction sites. This reflects the consistency and stability of engineered wood products, and the cost savings realized from shorter construction times.

As a result, engineered wood products are making inroads in traditional brick and block construction projects, but just as significantly, engineered wood products are capturing market share from solid wood components. Since the United States has broad experience with engineered wood products in both traditional wood frame housing and prefabricated construction, U.S. producers are well positioned to increase sales to the United Kingdom. Of the eight companies currently approved to supply I-Joists<sup>3</sup> to the U.K., seven are U.S. firms. In contrast, most solid wood currently used in UK construction projects is supplied by Nordic and Baltic producers. I-Joists are often used in applications where solid sawn lumber beams were formerly required.

Increased construction activity, trends favoring increased wood use, and the development of engineered wood products are creating opportunities for U.S. wood product companies. Those that take advantage of these opportunities will be

glad they did.

For more information about construction in the United Kingdom, please refer to FAS Attaché report, GAIN Report UK1043, *United Kingdom Solid Wood Products Annual for 2001*, found at: [www.fas.usda.gov/scripts/attacherep/default.asp](http://www.fas.usda.gov/scripts/attacherep/default.asp).

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<sup>3</sup>An I-Joist is a beam whose cross section resembles the letter "I"; one in which the top and bottom chords, typically made from 2x4s or laminated veneers, are connected by a thinner material made from oriented strand board or plywood.