

Voluntary Report – Voluntary - Public Distribution

Date: March 02,2021

Report Number: TW2021-0016

Report Name: Long Awaited Building Codes Offer Opportunities for US Lumber Exports to Taiwan

Country: Taiwan

Post: Taipei ATO

Report Category: Export Accomplishments - Market Access, Wood Products, SP1 - Expand International Marketing Opportunities, SP2 - Prevent or Resolve Barriers to Trade that Hinder U.S. Food and Agricultural Exports

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Report Highlights:

After years of effort by ATO Taipei in collaboration with APA - The Engineered Wood Association (APA), Taiwan authorities announced a long-awaited revision to wood building codes on fire protections. Taiwan's building regulations were previously unfriendly to wood frame construction and acted as a de facto trade barrier for U.S. wood product exports. However, the revised codes will facilitate U.S. exports by allowing for the application of U.S. PS-2 structural panel sheathing (structural plywood, oriented strand board, other mat-formed panels and composite panels) without additional approval. ATO Taipei and APA estimate this change will increase U.S. exports by ten percent in 2021.

Executive Summary

In January 2021, the Taiwan Construction and Planning Agency of Ministry of Interior (CPAMI) announced a long-awaited revision to wood building codes. The revised codes relate to fire protection for ceilings and walls, two vital elements in wood structure design. These updated codes recognize modern standards in wood construction and will pave the way for wood products in new ways for the first time in Taiwan. ATO Taipei and APA - The Engineered Wood Association (APA) estimate this change will increase U.S. exports by ten percent in 2021.

These safety provisions were initially introduced in an appendix of the original codes from 2008. However, the construction code appendices are deemed as for reference only which effectively eliminated their use in actual design and use. As a result, local construction and building authorities denied building permit applications of designs based on the systems listed in the appendix. Thus, APA and ATO Taipei have focused for several years on education and training as a means of transforming ineffectual recommendations into practical guidelines used by industry.

Detailed Background

On October 31, 2008, the CPAMI announced a working set of fire code regulations for wood frame construction. The 2008 codes included an appendix introducing several APA Fire Rated Systems which are listed in the U.S. International Building Code. These designs are commonly applied by U.S. architects and designers without lengthy review processes or additional fire tests as their safety is pre-determined. The Taiwan building code committee members were not comfortable including the APA fire-resistant assemblies in the wood building codes as Taiwan had never conducted similar fire tests. Hence, the committee decided to add the systems in the appendix which required further approval by local building authorities if builders sought to apply these systems in their designs. Individual builders did not apply for testing because it is expensive, time consuming, and impractical for a single company to do so.

Over the past decade, ATO Taipei and APA prepared and presented several code change proposals, but the progress was sluggish on all fronts – from testing methodologies of U.S. engineered wood products to general building design codes. To promote U.S. softwood lumber and applications of engineered wood products in Taiwan, ATO Taipei has been collaborating with APA to eliminate the lengthy review process for builders to obtain wood frame construction building permits. Over many years, ATO and APA organized several technical seminars to educate stakeholders, provided U.S. fire codes for wood frame constructions to official building research agency, supported technical trade missions of Taiwan officials to learn about U.S. codes, and committed to sponsor fire tests locally, all in the hope of removing technical barriers to trade and increase markets for U.S. wood products in a variety of construction applications.

In 2018, CPAMI recognized PS-2 standard for U.S. oriented strand board (OSB) and plywood span rated structural panel sheathing. The PS-2 Standard is a U.S. national standard, promulgated by the U.S. Department of Commerce for construction applications based on a methodology known as “span rating.” Today, about 75 percent of OSB products manufactured globally follow the PS-2 span-rated standard. However, Taiwan’s national standards (Chinese National Standards; CNS) for structural panel sheathing include only testing methodologies for property-based standard, which is incompatible to U.S. PS-2 standard. To resolve this issue, ATO Taipei and APA approached many stakeholders to get consensus before requesting CPAMI for recognition of U.S. span-rated product standard. A building committee meeting was called by the CPAMI on December 13, 2017 and the U.S. PS-2 standard was recognized by common consent soon thereafter. The PS-2 recognition greatly facilitated U.S. wood product trade. The recognition process itself became a model for Post’s future market access negotiations.

Going forward, in 2019 ATO and APA co-organized a wood technical mission of Taiwanese officials, academia, and industry researchers to the United States. The goal was to educate mission delegates on a wide variety of topics including U.S. wood construction codes and increased allowable heights for wood buildings. The mission aimed to facilitate market access by familiarizing delegates with U.S. wood products and practices. ATO Taipei informed travelers of the U.S.’s long track record with wood construction materials and thereby position U.S. wood products as an acceptable option in Taiwan with respect to fire codes, seismic and durability codes. Mission delegates toured wood product testing facilities, met with researchers of the USDA Forest Products Laboratory in Madison, Wisconsin and at APA Headquarters. They also met with U.S. structural engineers, architects, builders, developers and building code officials and toured completed large-scale wooden non-residential and residential projects and those under construction.

Upon the return from this mission with new knowledge and information, the Taiwan code officials established a schedule to revise fire codes for light-frame wood constructions. A building code committee meeting was organized by Taiwan’s Ministry of Interior in January 2020 and consensus was reached during the session. The revised fire codes for light-frame wood construction were announced for public comments in the fourth quarter of 2020 and codified on January 26, 2021. The new fire codes for wood frame construction will encourage the design of light-frame wood construction and should generate sales of U.S. wood products. Additionally, the revised codes include fire protection designs that allow for the application of U.S. PS-2 structural panel sheathing (structural plywood, oriented strand board (OSB), other mat-formed panels and composite panels) without additional approval, further liberating the PS-2 sheathing applications from the 2018 announcement.

Building the Future with U.S. Wood Products

APA is excited with the success of this long-term project and confident that U.S. exports will increase with efforts ramping up in Taiwan to educate local architects, designers, builders, contractors, and others about the code change and expanding possibilities for wood construction. APA is already seeing innovative Taiwanese companies embrace U.S. wood products in two separate heavy timber/hybrid building landmark projects currently being built in Taoyuan and Taichung.

Wood frame construction has been underdeveloped in Taiwan for decades and more work needs to be done to bring wooden structure building codes up to date. The Taiwan code authority and construction research agency are now actively seeking assistance to collect information about the product specification, design, construction, and regulatory framework for large and tall wooden structures.

ATO Taipei will continue working with U.S. industry, USDA cooperators, Taiwan end users, and Taiwan authorities to educate the target audiences regarding wood construction material performance, technical designs, and applications.

For potential exporters interested in the Taiwan market, there are several cooperator groups active on the island, including APA, American Softwoods, Softwood Export Council, and Southern Forest Products Association. Additionally, small-to-medium sized lumber exporters (or potential exporters) can work with the appropriate U.S. State Regional Trade Group (SRTG) to take advantage of the SRTG's resources for marketing and promotion support in Taiwan. The four SRTGs are non-profit trade development organizations that help U.S. food producers, processors, and exporters sell their products overseas. They are funded by USDA's Foreign Agricultural Service (FAS), individual state departments of agriculture, and private industry. The SRTGs provide export assistance to companies located in their geographic region through a variety of export programs and integrated marketing services. To learn more services available from the SRTGs, find the SRTG for your geographic area in the list below and visit the website.

State Regional	Web Site	States
Food Export - Northeast	http://www.foodexportusa.org	Connecticut, Delaware, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont
Food Export – Midwest	http://www.foodexport.org	Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin
Southern U.S. Trade Association (SUSTA)	http://www.susta.org	Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Puerto Rico, Virginia, West Virginia
Western U.S.	http://www.wusata.org	Alaska, Arizona, American

Agricultural Trade Association (WUSATA)		Samoa, California, Colorado, Guam, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming
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Also, the U.S.-lumber producing states of Washington, Missouri, and Idaho employ local [representatives](#) in Taiwan who can be contacted for additional information on the market.

Finally, U.S. exporters interested in expanding business in Taiwan, China and ASEAN markets are encouraged to exhibit in Taipei Building Show. The show is an excellent venue for U.S. exporters to make contacts with potential business partners, to conduct product introductions and to gauge buyers' interest. ATO Taipei has been organizing the USA pavilion at the Taipei Building Show since 2009, and the U.S. exhibitors continue to reap the benefits. In 2020, the USA Pavilion was the largest foreign national representation at the show. https://www.taipeibex.com.tw/TBS/en_US/.

For more information on the Taiwan market for wood and wood products, including the Taipei Building Show, please contact the AIT's Agricultural Trade Office at: ATOTaipei@usda.gov.



Attachments:

No Attachments.