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# Korea, Republic of Solid Wood Products The Revision of Korea National Building Code 2005

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### **Report Highlights:**

Recent regulatory changes have now made it possible for builders to construct multi-story, multi-family wood houses up to four stories tall and with up to 6,000 square meters of floor space in Korea. The changes will lead to significant new sales opportunities for wood building materials in Korea.

Includes PSD Changes: No Includes Trade Matrix: No Unscheduled Report Seoul [KS1] [KS] In April 2005, standards for Korean building construction were amended to allow construction of taller wood-framed buildings. In July 2005, the Ministry of Construction and Transportation (MOCT) announced that the Korean National Building Code (KNBC) had been amended to allow multi-story, multi-family wood houses to be certified as fire resistant. Therefore, it is now possible to construct multi-story, multi-family wood houses up to four stories tall with up to 6000 square meters of floor space.

The taller wood houses must be constructed in accordance with certain structural calculations and sprinkler installation standards defined by MOCT. Nevertheless, the regulatory changes will allow builders to begin constructing multi-story, multi-family wood houses that were effectively prohibited in the past leading to significant new potential for sales of wood construction materials in Korea.

#### The Fire Code Revisions

Under the previously existing regulations, construction of three-story and higher multi-family wood-framed buildings was not allowed. Specifically, the major structural parts of such buildings were required to be constructed of fire-resistant materials and wood structural parts were not listed as fire resistant. The major structural components include load - bearing walls, floors, roofs and columns. Over time, a standard (KSF 1611-1) defining parameters for major structural components to qualify as fire resistant was developed by the Korea Agency for Technology and Standards based on the results of actual burn tests conducted by the Fire Insurers Laboratories of Korea (FILK). The American Forest & Paper Association assisted in development of the standard. In September 2002, the Ministry of Commerce, Industry & Energy (MOCIE) adopted KSF 1611-1, making it part of the *Industrial Standardization Act*. Among other provisions, KSF 1611-1 requires that gypsum board used in wood-frame construction must be fire-resistant, and that framing lumber must be covered with fire-resistant, gypsum board.

In July 22, 2005, the Korean National Building Code's (KNBC) Ministerial Regulation on Standards for Evacuation and Fire-Resistance of Buildings also adopted KSF 1611-1. Adoption of this standard from the Industrial Standardization Act, and the adoption on April 6, 2005 of another standard (Korea Building Code-Structural) allowing for taller wood-framed buildings, makes it possible for builders to construct multi-story, multi-family wood houses up to four stories tall, with up to 3,000 square meters of floor space (without sprinklers) and up to 6,000 square meters of floor space (with sprinklers). Such structures must be constructed according to the structural calculations and fire-resistance requirements mandated by MOCT.

The relevant amendment to the *Ministerial Regulation on Standards for Evacuation and Fire-Resistance of Buildings* was made to Article 3, which defines fire resistant structures. Article 3-8-a (the amended part of the Regulation) states that wooden structures that meet KSF 1611-1 standards are fire resistant. The *KNBC's Presidential Enforcement Decree* requires that all multi-story, multi-family wood houses must be fire-resistant.

Now that the new fire code standards have been included in the *Ministerial Regulation on Standards for Evacuation and Fire-Resistance of Buildings*, builders expect that there will be a rapid and significant increase in the construction of wooden, multi-story, multi-family buildings.