

## LOW FORMALDEHYDE EMISSIONS

- APA Rated panels use only moisture resistant adhesives that are exempt from U.S. HUD and California formaldehyde regulations due to their very low emission rates.
- Formaldehyde occurs naturally, and it's all around us. Humans, plants and animals produce formaldehyde as a normal part of living.

In fact, large-scale chamber tests have shown that formaldehyde emission levels in engineered wood panels are no higher than the levels found naturally in the environment. Indeed, because formaldehyde levels associated with phenolic resin-bonded products are so low, these products easily meet or have been exempted from the world's leading formaldehyde emissions standards and regulations, including:

- U.S. Department of Housing and Urban Development (HUD)
- California Air Resources Board (CARB) Air Toxic Control Measure for Composite Wood Products
- Japanese Agricultural Standards (JAS)
- EN 300 standard for European markets.



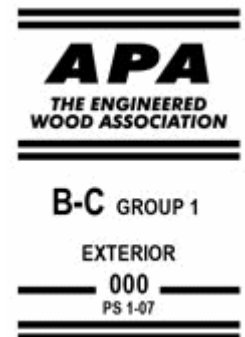
### California Sets Limits on Formaldehyde Emissions

California's Air Resources Board (CARB), a division of the California EPA, is working to enact new regulations to reduce formaldehyde emissions from wood panels and products made from wood panels used in the state. The new regulations will establish the most stringent formaldehyde emission limits on wood products in the United States. The measure requires that wood panels and products manufactured from wood panels be certified by a "third party" laboratory approved by the CARB as meeting California's emissions requirements. Panel manufacturers, importers, distributors, fabricators and installers can all be held responsible for assuring that their products comply. The new emissions limits are scheduled to be phased in starting 2009 and fully implemented in 2012.

Because structural wood products certified by APA under U.S. Voluntary Product Standards PS 1 and PS 2 are manufactured with moisture resistant adhesives that emit formaldehyde at very low levels well below the CARB limits, the wood panels are exempt from the CARB regulations.

### FEMA Applies New Formaldehyde Standards for Travel Trailers

A recent investigation conducted by FEMA has uncovered new information on formaldehyde emissions in travel trailers. The research suggests that ventilating the units can greatly reduce formaldehyde levels. FEMA is continuing to research actions to help reduce formaldehyde emissions. In addition, it has adopted formaldehyde standards, developed by the U.S. Department of Housing and Urban Development (HUD), for wood products used in the travel trailer industry.



### Imported Panels Exhibit High Levels of Formaldehyde

APA has cautioned the marketplace to beware of Chinese and other panel imports that are either unmarked or improperly, and in many cases even fraudulently, labeled. Recently, APA tested samples of non-trademarked imported concrete form panels and imported Chinese and Brazilian plywood panels. Test results indicated that the concrete form samples had an average load capacity of approximately 40 percent below the level of APA PS 1 Plyform<sub>i</sub> 1/2 plywood. Most of the imported panels had formaldehyde emission levels that far exceeded those of domestic PS 1 panels. The imported Chinese and Brazilian plywood panels also exhibited inferior mechanical and connection properties and had excessive levels of formaldehyde compared to domestic plywood certified to PS 1.

The [Engineered Wood Products Association of Australia](#) (EWPAA) also tested the performance and formaldehyde levels of imported plywood samples and discovered similar results.

For more information go to: [www.performancepanels.com](http://www.performancepanels.com)