1. Basis of the product report:
   - APA Custom Product Specification E-710
   - ISO 12460-4, Wood-Based Panels -- Determination of Formaldehyde Release, Part 4: Desiccator Method
   - Voluntary Product Standard for Structural Plywood, PS 1
   - Performance Standard for Wood-Based Structural-Use Panels, PS 2
   - Construction Sheathing, CAN/CSA O325
   - Performance Standards and Qualification Policy for Structural-Use Panels, APA PRP-108
   - Performance Standard for APA EWS Rim Boards, APA PRR-401
   - Performance Standard for Engineered Wood Rim Boards, ANSI/APA PRR 410
   - Standard for Performance Rated Engineered Wood Siding, ANSI/APA PRP 210
   - APA Test Reports (see Table 2) and other qualification data

2. Product description:
   Wood structural panels are made with either veneers or strands of various species and classifications in accordance with the in-plant manufacturing standard approved by APA. Wood structural panels are available in a variety of thicknesses and sizes.

3. Formaldehyde emission level:
   The G5 rating is a formaldehyde emission level as defined in Table 1. Wood structural panels labeled as G5 have been qualified for low formaldehyde emissions based on ISO 12460-4 and the bond performance requirements of one of the following product standards: PS 2, PS 1, CAN/CSA O325, ANSI/APA PRP 210, APA PRR-401, ANSI/APA PRR 410, or APA PRP-108. Wood structural panels meeting the formaldehyde emission level specified in Table 1 in accordance with the APA Custom Product Specification E-710 are listed in Table 2.

   Table 1. Upper formaldehyde emission level for G5 rating based on ISO 12460-4(a)

<table>
<thead>
<tr>
<th></th>
<th>Average</th>
<th>Individual specimen</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.20 mg/per liter</td>
<td>0.30 mg/per liter</td>
</tr>
</tbody>
</table>

   (a) Testing has shown that APA certified products that meet these G5 levels also met the level specified in the HUD regulation. Wood structural panels are outside the scope or exempt from CARB ATCM for formaldehyde from composite wood products and EPA's TSCA Title VI standard for formaldehyde from composite wood, and CAN/CSA-O160 for formaldehyde from composite wood products.

4. Limitations:
   a) Wood structural panels shall be designed and installed in accordance with the applicable provisions of the code and the recommendations provided by the manufacturers and APA Design/Construction Guide: Engineered Wood Construction Guide, Form E30 (www.apawood.org/resource-library).
   b) Wood structural panels trademarked as Exposure 1 are limited to dry service conditions that result in the average moisture content of sawn lumber of less than 16 percent.
   c) Wood structural panels are produced by the manufacturing facilities shown in Table 2 under a quality assurance program audited by APA in accordance with the APA Custom Product Specification E-710.
   d) This report is subject to re-examination in one year.
5. Identification:
Wood structural panels are identified by a label bearing the manufacturer's name and/or trademark, the APA assigned plant number, the product standard and thickness, the bond classification, the APA logo, the product report number PR-E710, and the formaldehyde emission rating G5.

Table 2. Qualified Manufacturing Facilities for Low Formaldehyde Emission

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Location</th>
<th>Mill Number</th>
<th>APA Test Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardel Mutual Plywood Corporation</td>
<td>Chehalis, WA</td>
<td>79</td>
<td>T2018P-31</td>
</tr>
<tr>
<td>PotlatchDeltic Corporation</td>
<td>St. Maries, ID</td>
<td>215</td>
<td>Q09Q-1</td>
</tr>
<tr>
<td>Roseburg Forest Products</td>
<td>Coquille, OR</td>
<td>367</td>
<td>T2016P-37</td>
</tr>
<tr>
<td>Roseburg Forest Products</td>
<td>Dillard, OR</td>
<td>480</td>
<td>T2016P-26</td>
</tr>
<tr>
<td>Roseburg Forest Products</td>
<td>Riddle, OR</td>
<td>482</td>
<td>T2016P-18</td>
</tr>
<tr>
<td>Tolko Industries Ltd.</td>
<td>High Prairie, AB, Canada</td>
<td>450</td>
<td>T2018P-17</td>
</tr>
<tr>
<td>Tolko Industries Ltd.</td>
<td>Meadow Lake, SK, Canada</td>
<td>492</td>
<td>Q08Q-6</td>
</tr>
<tr>
<td>Tolko Industries Ltd.</td>
<td>Slave Lake, AB, Canada</td>
<td>514</td>
<td>Q08Q-5</td>
</tr>
</tbody>
</table>
APA – The Engineered Wood Association is an approved national standards developer accredited by American National Standards Institute (ANSI). APA publishes ANSI standards and Voluntary Product Standards for wood structural panels and engineered wood products. APA is an accredited certification body under ISO/IEC 17025 by Standards Council of Canada (SCC), an accredited inspection agency under ISO/IEC 17020 by International Code Council (ICC) International Accreditation Service (IAS), and an accredited testing organization under ISO/IEC 17025 by IAS. APA is also an approved Product Certification Agency, Testing Laboratory, Quality Assurance Entity, and Validation Entity by the State of Florida, and an approved testing laboratory by City of Los Angeles.

APA – THE ENGINEERED WOOD ASSOCIATION
HEADQUARTERS
7011 So. 19th St. • Tacoma, Washington 98466
Phone: (253) 565-6600 • Fax: (253) 565-7265 • Internet Address: www.apawood.org

PRODUCT SUPPORT HELP DESK
(253) 620-7400 • E-mail Address: help@apawood.org

DISCLAIMER
APA Product Report® is a trademark of APA – The Engineered Wood Association, Tacoma, Washington. The information contained herein is based on the product evaluation in accordance with the references noted in this report. Neither APA, nor its members make any warranty, expressed or implied, or assume any legal liability or responsibility for the use, application of, and/or reference to opinions, findings, conclusions, or recommendations included in this report. Consult your local jurisdiction or design professional to assure compliance with code, construction, and performance requirements. Because APA has no control over quality of workmanship or the conditions under which engineered wood products are used, it cannot accept responsibility for product performance or designs as actually constructed.