NATIONAL WOODEN PALLET
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February 2, 2016

NWPCA Testimony to House Committee on Transportation and Economic Development
Oregon House of Representatives

Re: House Bill 4089

The Honorable Caddy McKeown, Chair, and Committee Members:

The National Wooden Pallet & Container Association (NWPCA) is the largest international organization of wood packaging professionals in the world, with more than 660 company members, located in Oregon and in most every U.S. state, who manufacture, repair and distribute wood packaging. We appreciate this opportunity to submit testimony to the Committee in regards to House Bill 4089.

The bill creates a purchasing preference for corrugated over wood pallets, with various exceptions stipulated in the language. We strongly believe the bill as drafted, with this preference language, will cause significant unintended consequences, pose potential health and life safety risks throughout the supply chain, disrupt logistics and increase costs within the State of Oregon, while ultimately not achieving the worthy carbon goal that the bill's author intends.

Wood Pallets, Proven Engineering: The modern supply chain places heavy demands on pallets. Pallets must be able to support a load, across a potentially wide range of environmental conditions, while being shipped, and impacted multiple times by pallet jack or forklift. Storage of unit loads varies from being placed on the floor, stacked several times high, or placed in steel racking systems that can be multiple stories tall.

Consequently, standards recognized nationally by the American National Standards Institute (ANSI) and internationally by the International Standardization Organization (ISO) stipulate that pallets meet specific performance guidelines based on strength, stiffness, and durability. A deficiency in any one of these properties can have major implications to life safety.

Solid wooden pallets are a product of 30+ years of intensive research and testing at universities like Virginia Polytechnic Institute and State University "Virginia Tech". Many of the wooden pallets in use today have been designed using sophisticated engineering software called The Pallet Design System™ (PDS). The software models the performance of the wooden pallet so that it can be ultimately designed to the specific handling and usage needs of any pallet user, ensuring that it can be handled safely and constructed in the most resource efficient way possible. This is why many Fortune 500 companies, like Costco and Home Depot, among others, require PDS designs with their purpose-built pallets.

IKEA Case Study: The proponents of corrugated pallets have promoted IKEA's successful transition from wood pallets to corrugated pallets. IKEA is in the somewhat unique position because many of its products are packed uniformly and are inherently rigid, which allows for the use of corrugated pallets within their closed-loop system. These corrugated products also have unique use characteristics, for example, they are not stored outside in the rain. This is not the case for many other products that

transit Oregon roadways, and distribution centers, and modeling legislation over this unique case would create significant unintended consequences across the supply chain.

Life Safety: Since many unit loads are stored in racks, sometimes multiple stories high, worker safety demands we don't take risks with their lives on solutions that haven't been extensively vetted.

Corrugated pallets are not generally intended or capable of being stored under load in commonly used free-span racking systems. For example, if rack storage is required, then a wooden pallet must be placed under the corrugated pallet while in the rack, negating any perceived benefit of using corrugated.

Another potential hazard is that corrugated material is susceptible to environmental factors. Corrugated material loses significant strength when exposed to moisture, and naturally loses strength over time creating challenges for long-term storage.

The Carbon Question: Carbon emissions are dependent on many factors, not just transportation. While weight reduction does lead to decreased gasoline and diesel consumption, the amount of carbon required to manufacture a corrugated pallet needs to be considered as well. Depending on the type of pallet constructed, the carbon emission generated from producing a corrugated pallet can be five to ten times greater than a comparable wooden pallet[1].

Furthermore, the durability of a corrugated pallet has not been vetted, and is potentially significantly less than that of a wooden pallet given that corrugated is much more susceptible to damage to fork lifts and material handling equipment in comparison to wood. Having to use twice the number of corrugated pallets, for example, because they don't last as long should be considered in any full life cycle, carbon equivalence, and/or cost-benefit analyses conducted.

Supply Chain Logistics: Corrugated pallets cannot be used in the same fashion as wooden pallets. Corrugated pallets work best where unit loads are stored and stacked single-high. Inability to stack multiple units may lead to inefficient use of warehouse storage space and/or inefficient use of trailer or container space during transport. As explained above, corrugated pallets are not generally suitable for racking storage, so they cannot be used in warehouses that employ these systems.

The modern supply chain distribution system, from fork lift to truck, to warehouse to conveyer, is highly complex, and wood pallets are precisely the foundation the system was built around. Government mandated changes to a different material pallet can have drastic unintended consequences.

Jobs and Economic Impact: The $11.5 billion wood packaging industry constitutes an integral part of the U.S. economy, across all sectors and regions, as 94% of all products move on wooden pallets. Wooden pallets consume 10-15% of softwood production in Oregon and directly affects the Oregon forest industry community. The sawmills in Oregon would face significant impact if they lose this important market. According to the U.S. Census Bureau, there are 34 pallet businesses doing $138,000,000 of business in Oregon with an annual payroll amongst them of $16,000,000. The annual value of shipments per business is $4,047,000. This significant economic impact to Oregon doesn't account for the loss in revenue to Oregon sawmills that would occur from reduced lumber exports to pallet manufacturers in other states, like California.

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[1] Based on data from:
Puettmann et al. (2013) "Cradle to Gate Life Cycle Assessment of Softwood Lumber Production from the Southeast" PE-Americas and Five Winds International (2010) "Corrugated Packaging Life-cycle Assessment Summary Report"

Sustainability: Corrugated and wooden pallets are both made out of wood and share very similar characteristics for sustainability, sanitation, and disposal. Wooden packaging is reusable, recyclable and at end-of-life is a source for renewable "green" energy as evidenced by the growing wood pellet markets.

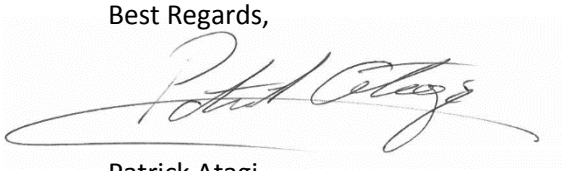
Less than one percent of reclaimed pallets are landfilled and multiple facilities are equipped with means to grind pallets into chips and other materials so that they never enter the landfill. Ground-up material is used freely as landscape mulch, animal bedding, and biofuel to complete a carbon neutral cycle.

Conclusion: The popularity of wood for pallets has remained high not only because it is environmentally sustainable and cost effective, but it is also extremely strong and rigid. These properties provide excellent protection for the product while in transit and storage. Wood is also highly customizable, delivering endless opportunity for companies to transport their goods by the most efficient means possible. For all of these reasons, the free market continues to predominantly choose wood for its transportation needs.

We appreciate the consideration of our testimony and recommend the Oregon legislature set-aside Oregon HB 4089. NWPCA stands ready to provide technical input and answer questions related to complex supply chain issues associated with the proposal.

House Bill 4089 in our estimation does not achieve the goals intended, environmentally or from a supply chain logistics efficiency standpoint, and the potential risks to life safety should be fully examined before proceeding.

Best Regards,



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