



COMPOSITE PANEL ASSOCIATION

Advancing the wood-based panel and decorative surfacing industries

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COMMENTS: Docket identification (ID) number EPA-HQ-OPPT-2008-0267

Colby Linter
Office of Pollution Prevention and Toxics (OPPT)
Environmental Protection Agency
1200 Pennsylvania Ave., NW.
Washington, DC 20460-0001

Dear Mr. Linter,

These comments are submitted by the Composite Panel Association ("CPA") in response to the Federal Register notice of April 25, 2008, requesting comments on the petition of the Sierra Club and others to initiate a rulemaking proceeding under Section 6(a) of the Toxic Substances Control Act ("TSCA") with respect to formaldehyde in composite wood products. The petitioners request that EPA adopt on a national basis the Air Toxic Control Measure ("ATCM") recently promulgated by the California Air Resources Board ("CARB"). The ATCM requires very substantial reductions in the emissions of formaldehyde from particleboard, medium density fiberboard and hardwood plywood beginning in January of 2009 and in a second phase thereafter.

As described in more detail below, CPA is committed to the effective implementation of the CARB rule in California and is supportive of "nationalizing" its provisions so that there is effective and comprehensive adoption as a matter of product stewardship. We are committed to working with the Environmental Protection Agency to this end, and we believe that there are a number of approaches that could be used. We do not believe, however, that a TSCA Section 6(a) approach with its required finding of unreasonable risk is an appropriate or justifiable course.

I. Composite Panel Association

The Composite Panel Association¹ represents the North American composite panel industry. Our general membership includes 95% of the producers of particleboard, MDF and hardboard. Our associate membership includes companies that fabricate products on these platforms as well so our entire membership is a direct stakeholder in this proposed regulation.

CPA has been actively involved in regulatory activities involving formaldehyde for over thirty years. It is accredited by the American National Standards Institute ("ANSI") for the development of consensus standards and over the years has promulgated and maintained both industry and ANSI standards for formaldehyde and the physical and mechanical properties of its products. CPA maintains a world-class laboratory, accredited by the U.S. Commerce Department (NIST), which performs a variety of formaldehyde, VOC and physical and mechanical property testing. The Association has also run a grademark program for over 30 years which has been acknowledged by the Department of Housing and Urban Development ("HUD") and by CARB as one of the best of its kind. The Grademark Program is accredited by ANSI under ISO Guide 65.

II. The CARB Rule

The Sierra Club petition asks that the CARB ATCM be adopted on a national scale. However, it is unclear what the actual scope of this request is. The CARB rule is a unique and complex regulation, with many features, some of which may be beyond the scope of TSCA authority.

The central aspect of the ATCM is a series of formaldehyde emission limitations from wood composite products – particleboard, medium density fiberboard and hardwood plywood. These limitations will be implemented in two phases, the first beginning on January 1, 2009. The first phase entails meaningful reductions from typical current emission levels; Phase 2 requires very significant further reductions. The two-phase approach was implemented in order to allow industry to adapt its resin systems, equipment and manufacturing operations to reach these incredibly low levels. CARB estimated that costs associated with the changes would be in the range of \$147 million; industry estimated the cost at close to \$650 million, nationwide. The changes are very significant. Nonetheless, as a matter of product stewardship, the Composite Panel Association and its members have embraced the rule and would be in favor of a system of national implementation.

One must not lose sight, however, of the complexities and challenges posed by the rule. Its limits relate to emissions from composite panels tested in accordance with set test protocols. It is a product standard – it does not directly regulate the ambient levels in an indoor environment. Other factors such as outdoor air, cooking fumes and formaldehyde from other products, coupled with ventilation, heat and humidity all impact formaldehyde indoor ambient levels.

The ATCM also regulates all downstream products containing formaldehyde, such as furniture and cabinetry. There are requirements for labeling, invoice marking, “chain of custody” records and other means to assure compliance by finished goods. Ultimately, however, the test of compliance of these finished goods would be to “deconstruct” the item removing its

¹ Until 1997, CPA was known as the National Particleboard Association. With its merger with the Canadian

finishes, prying off any laminating material from the faces and edges and then testing the underlying panel (or what is left of it) to check emissions. Coverage of finished products is essential to avoid possible flow of non-complying panels into this major end market. CPA supports this finished products enforcement system, but it notes this aspect to underscore the complexity of the Rule and its implementation. Enforcement will be challenging for CARB and would be very difficult on a national level for EPA.

Yet another safeguard in the CARB rule is a system of third party certification whereby independent entities oversee the compliance of panel producers with the regulation. This process mirrors a system that CPA has had in place for many years and helps ensure that manufacturers maintain a robust and accurate quality control process.

Labeling, record-keeping and invoice marking all add to the enforcement regime. The members of CPA are resolute in their support of these enforcement measures and are committed to compliance with the ATCM. We are concerned, however, because there could be motivation for the unscrupulous to try to avoid the substantial cost of compliance by shipping non-compliant board into this market. Particularly when panels can be covered and sealed with laminates, veneers and finishes which create barriers to formaldehyde emissions, enforcement will be a challenge.

We have seen this temptation before. It is widely rumored that the elevated formaldehyde levels in many of the FEMA trailers were caused in large part by imported composite panels (and particularly lauan from the Far East) which did not meet the domestic

industry voluntary standards for formaldehyde emissions and were not certified by any of the recognized formaldehyde grademark programs, such as those run by CPA and HPVA.

III. History of Formaldehyde Regulation and CPA's Cooperation

Formaldehyde has been used for generations in a variety of applications.² Permanent press resins for apparel, wet strength for towels and other paper products and tack for insulation are some of the many uses. One of the largest usages of formaldehyde is in urea-formaldehyde resins used in manufacturing composite wood panels. Their versatility, ease of handling, relative cost advantage and performance characteristics make them very useful adhesive systems.

In the mid to late 1970's, with gas and energy prices spiking to what were then historic levels, there was a major initiative to make house construction tighter to prevent the natural ventilation which contributes to fresh air. In the late 1970's and early 1980's numerous complaints were received by the Department of Housing and Urban Development and by the Consumer Product Safety Commission about indoor air problems, some presumably from formaldehyde emissions. At the time, there were no industry standards for emissions. In the ensuing years, CPA and other industry groups have worked closely with various regulatory agencies to address regulatory concerns and to reduce emissions. We stand ready to do so with EPA now.

² See the comments of CPA (then known as National Particleboard Association) which were submitted on March 18, 1993, to Charles Auer, and the CRADA signed 12/6/1993 during the EPA's earlier evaluation of composite wood products under TSCA.

A brief recount of these cooperative efforts may be instructive:

A. Department of Housing and Urban Development

In the early 1980's, HUD developed the first federal regulatory provisions for formaldehyde emissions from wood products. Based on substantial research on loading rates, test methods and products usage, HUD established product standards for particleboard (0.3 ppm) and hardwood plywood (0.2 ppm) when tested in a large chamber test using the ASTM E-1333 test method.³ These standards were designed to result in an initial ambient level of no more than 0.4 ppm. Inasmuch as formaldehyde levels decline dramatically over time, it was expected that longer term levels would be substantially lower.

The use of product standard "limits" or caps on emissions leads to another important dynamic – panel production must be significantly below the standard in order to assure compliance. Although the production process is now very sophisticated, there is still substantial variability in the various manufacturing inputs that influence formaldehyde emissions. Species differences, moisture content, variability in production machinery and testing tolerances all influence emissions.⁴ Therefore, to ensure compliance with a cap, manufacturers must target emissions that are significantly below the stated level. Average emissions results for particleboard targeted for compliance with the HUD 0.3 ppm standard were often below 0.2 ppm.

It should also be noted that the product loading assumptions underpinning the HUD rule were very high – approximating full usage of particleboard flooring throughout most of the unit

³ 24 C.F.R. § 3280.308, 49 Fed. Reg. 32011 (Aug. 9, 1984)

⁴ The ASTM E-1333 test method states that its repeatability is 0.03 ppm.

and plywood paneling throughout the entire unit. This loading is much higher than is currently used in manufactured homes and in conventional structures.

The HUD rule also included a third party certification requirement and the CPA grademark program was referenced as a model for compliance.

After the promulgation of the HUD standard, complaints to the agency from manufactured home residents were virtually eliminated.

B. Consumer Product Safety Commission

In the 1980's, the Consumer Product Safety Commission ("CPSC") also had an extensive investigation of the use of composite wood products in conventional homes.⁵ Over the course of several years, it investigated the typical loading of wood products, their emissions and projected ambient levels in various assumed housing scenarios. In 1986, the Commission unanimously found that the voluntary standards that had been adopted by the CPA and the Hardwood Plywood and Veneer Association⁶ adequately addressed any risk of injury in that setting. The Commissioners went out of their way to congratulate the industry on its responsibility in this matter.

As with HUD, CPSC had received several hundred complaints ascribed to indoor air from consumers in the late 1970's and early 1980's, particularly focused on transitory irritation. With the advent of new low-emitting products in the early '80's, complaints were virtually eliminated.

⁵ The CPSC also investigated urea formaldehyde foam insulation ("UFFI") and issued a rule banning its use in 1982. The ban was overturned by the courts. **Gulf South Insulation v. U.S. Consumer Product Safety Commission**, 701 F.2d 1137 (5th Cir.1983). UFFI often involved improper installation in home wall cavities which led to increased ambient levels in the homes.

CPSC has continued to monitor formaldehyde issues and published its brochure "Update on Formaldehyde" most recently in 1997. It described at some length the various sources of formaldehyde, noted that the composite industry had reduced emissions by 80%-90% since the early 1980's and identified a 0.1 ppm level as one below which there should be no problems of irritation.

C. Occupational Safety & Health Administration

The Occupational Safety & Health Administration ("OSHA") was also involved in the 1980's in the development of a rule under Section 6 of the OSH Act for workplace exposure to formaldehyde and related responsibilities. Upon remand of the rule from the Circuit Court of Appeals for the DC Circuit, UAW v. Pendergrass, 878 F.2d 389 (D.C. Cir. 1989), a comprehensive group from formaldehyde-using industries, labor unions, and public interest groups assembled to discuss their views of what should be included in a revised final rule. Wood products, textiles, foundries, apparel, chemicals, resins and other industries were represented in the sessions. Similarly, the United Auto Workers, International Brotherhood of Carpenters, Public Citizen and other labor and public interest groups were represented. The result of those discussions was a comprehensive final rule which was presented to the Agency with a united recommendation for adoption. OSHA agreed and finalized the proposed standard from the ad hoc group virtually without change. It was hailed as one of the finest examples of regulatory cooperation between interested parties.

⁶ That association was then know as the Hardwood Plywood Manufacturers Association ("HPMA").

D. Environmental Protection Agency

For a number of years in the late 1980's through the middle 1990's, EPA conducted an investigation of composite wood products in conventional homes under TSCA. It was a far-ranging proceeding in which EPA hired Battelle and a variety of other contractors to evaluate the health effects of formaldehyde and the product characteristics and usages. As part of the proceeding, the Office of Pollution Prevention and Toxics and CPA entered into a cooperative research and development agreement ("CRADA") under which CPA agreed to fund a home study to determine typical ambient formaldehyde levels in new homes. The study was conducted by an independent contractor, with input from EPA and CPA scientists. A conventional home was equipped with various loadings of well-characterized composite wood products and the home was thoroughly instrumented to record pertinent data. High, medium and low loading scenarios were used at different times in the home. The highest reading for new materials in the high loading scenario was 0.07 ppm and with the expected rapid "decay" thereafter, it dropped to 0.04 ppm within approximately one month. An extensive report was submitted to EPA⁷ and a presentation by Geomet, EPA, CPA and HPVA authors was made at the 30th Annual Washington State University Particleboard Symposium⁸ explaining the study and its results.

The EPA had on numerous occasions stated that its "level of concern" was at 0.1 ppm. Projected ambient home concentrations were demonstrated to be significantly below this level. The investigation was discontinued without any regulatory action.

⁷ Koontz *et al.*, "Residential Indoor Air Formaldehyde Testing Program: Pilot Study," EPA Contract No 68-D3-0013 (March 21, 1996).

⁸ Hare, *et al.*, "Evaluating the Contribution of UF-Bonded Building Materials to Indoor Formaldehyde Levels in a Newly Constructed House," WSU 30th Annual Particleboard Symposium (April 17, 1996)

E. California Air Resources Board

The tradition of regulatory cooperation continued in the CARB proceeding. Although the industry and CARB disagreed with many aspects of the rule, including some of the emission levels, the feasibility of many plants to reach the limits, regulatory language and time frames, our approach throughout was to make the points we thought appropriate and contest principles where necessary, but to work with the Board and its staff to fashion the best rule possible, including fair but tough enforcement provisions to ensure that there was a level playing field for all market participants. Once the rule was finalized, CPA did all in its power to encourage broad and early implementation. It was the first applicant to become an accredited third party certifier. CPA has also been working with CARB to resolve troublesome interpretative issues that have arisen.

At the April 2007 hearing at which the rule was preliminarily approved by the Board, the staff made special mention of the cooperation that had been shown by CPA and others.

We raise this history to underscore the product stewardship of the Composite Panel Association and its members and to note its resolve to support reasonable regulatory provisions. Although we would bring the same commitment shown to EPA and other regulatory bodies in the past to finding an effective means of "nationalizing" the CARB rule, the association does not believe that a Section 6(a) rule is the appropriate vehicle to make this happen.

IV. Section 6(a) is Not an Appropriate Regulatory Vehicle in this Instance

History has shown that Section 6(a) of TSCA imposes a heavy burden to justify the need for the issuance of a rule. Only five compounds or compound classes – polychlorinated biphenyls ("PCB's"), fully halogenated chlorofluoroalkanes, dioxin, hexavalent chromium and

asbestos – have been promulgated under this section. The success rate of Section 21 petitions has been very small (particularly those seeking Section 6(a) rules). Of ten petitions in the post-1994 period, none granted the requested 6(a) rulemaking. The most common reason for section 6(a) denial was that petitioners failed to provide sufficient evidence to demonstrate that the substance in question presented an unreasonable risk of injury. However, EPA also denied rulemaking, at least in part, on the following bases:

- Petitioners failed to provide information that would permit consideration of the effect of their requested controls on the national economy, small business and technological innovation, the environment, and public health (72 Fed. Reg. 50958)
- Petitioners provided no data to substantiate either their estimates of cost or of the efficacy of their proposed control actions (72 Fed. Reg. 50958)
- Petitioners did not address the extent to which actions taken under other statutes may already be addressing the risk, and whether those other statutes may provide more appropriate tools than TSCA section 6 action to control risk to the extent necessary (72 Fed. Reg. 50958)
- Petitioners did not address the extent to which actions taken under voluntary programs may already be addressing the risk, and whether those voluntary programs may provide more appropriate tools than TSCA section 6 action to control risk to the extent necessary (72 Fed. Reg. 50958)
- "EPA has a number of high priority chemical assessment and risk management projects and actions already underway that are requiring a substantial amount of OPPT resources. EPA views many of these projects as being more broadly applicable, and as having greater potential to result in the understanding and reduction of possible chemical risks, than the actions suggested by the petitioners." (72 Fed. Reg. 72890)
- Regulation of the substance in question under other statutes was adequate to compensate for the associated risk (60 Fed. Reg. 39170 - CWA, CAA, RCRA); (62 Fed. Reg. 18351 - OSHA);

Many of these reasons would similarly apply to the Sierra Club petition.

Inherent in a Section 6(a) proceeding, and by inference in the evaluation of a Section 21 petition, is the finding of unreasonable risk of injury to health or the environment. CPA does not believe that such a finding is appropriate in this setting for a number of reasons.

First, EPA, at least informally through its discontinuation of the TSCA investigation in the mid 1990's, has already concluded once that rulemaking under Section 6(a) is not warranted. This is consistent with a similar conclusion by the Consumer Product Safety Commission in 1986.

Second, the standards under which the CARB rule was promulgated are legally inconsistent with TSCA's direction that a rule incorporate "... the least burdensome requirement." The applicable California statute, Health & Safety Code §39666, requires the ATCM to be designed "...to reduce emissions to the lowest level achievable through the application of BACT, or a more effective control method."⁹ Thus, CARB is directed to take the most stringent measures feasible, while TSCA directs the least burdensome approach. Again, CPA does not object to a broad implementation of the CARB standards, but they are not legally supportable under Section 6.

Third, the health effects of formaldehyde have been debated for more than thirty years. Many new developments in terms of risk assessment have been broadly recognized since the 1980's and early 1990's. For instance, EPA has recognized and incorporated the CIIT biologically-based formaldehyde risk assessment in a number of its Clean Air Act rulemakings. That assessment reveals indicated risk of cancer at the exposures to which home residents are exposed to be truly insignificant—hundreds of times lower than risk levels assumed in the

⁹ The California BACT standard is somewhat different from the BACT in EPA's statutes.

1980's and 1990's. We also note that the IRIS assessment for formaldehyde is currently under review, with expected results in 2009 or 2010. It would be inappropriate to make an unreasonable risk judgment regarding formaldehyde when EPA is in the midst of re-evaluating the health effects of the compound.

Fourth, regulation of manufactured housing is within the primary jurisdiction of HUD.

The Sierra Club petition requests that a TSCA Section 6(a) rule be implemented for use of composite wood products used in manufactured homes. This use is specifically exempted by Section 93120.2(b)(2) of the CARB rule:

The emission standards in section 93120.2(a) do not apply to hardwood plywood and particleboard materials manufactured, sold, supplied for installation, or installed in manufactured homes subject to the United States Department of Housing and Urban Development regulations (24 Code of Federal Regulations, section 3280.308).

Earlier versions of the ATCM had specifically included manufactured housing usages within the regulation's scope. It was noted in comments to CARB that 42 U.S.C. § 5403(d) specifically preempts differing state regulation of that area. CARB relented.

Similar legal principles impede the assertion of jurisdiction by EPA over manufactured housing safety regulations. This jurisdiction is specifically granted to HUD by the National Manufactured Housing and Safety Standards Act, 42 U.S.C. 5401 *et seq.* Where, as here, one department or agency has been specifically granted authority to regulate a field and has exercised that power, another agency or department should not assert its rights in the same field under a general grant of authority such as TSCA Section 6(a). Although OMB has been the initial arbiter of such agency turf disputes, the courts have not hesitated to resolve these issues.

As noted below, there are other avenues to ensure that CARB emission limits are reflected in HUD standards.

V. There are Available Alternatives to Implement the CARB Requirements

CPA submits that there are a variety of approaches that could be used to effectively implement the CARB rule on a national basis other than a Section 6(a) rule with its mandatory (and we believe inappropriate) finding of unreasonable risk of injury. Although many of these ideas would take extensive discussions with the parties involved, approval by Boards of the impacted industries and various procedural steps, they could be feasible.

CPA and its members are not opposed to the implementation of the CARB rule on a nation-wide basis. However, there are some fundamental principles of fairness that temper this willingness. First and foremost, the mechanisms must be even-handed and must impact all like-situated parties the same. Imported products as well as domestic must be subject to the requirements, as is the case with the CARB ATCM.

Second, the enforcement of any requirements must be comprehensive and meaningful. Because the regulated products in this rule are often used in the innards of furniture and cabinets where they are covered with laminates, veneers and finishes that change the emission profile of the panel, it will be very difficult and expensive to detect non-complying products. Given the likely cost differential between Phase 2 compliant and non-complying panels, there will be a temptation for the unscrupulous to shirk compliance. We have seen numerous industries around the world beset with this form of unfair competition.

CPA has over the years established its commitment to working with state and federal regulators to achieve fair and appropriate regulation. It takes its product stewardship responsibilities seriously. It would continue this tradition working with EPA to find and implement appropriate alternatives to a Section 6(a) rule. The following are some possible approaches which alone or in tandem pose promise:

A. Significant New Use Rule

CPA believes that there may be a creative, if somewhat unconventional, approach through significant new use rule ("SNUR") provisions in TSCA Section 5(a)(2). EPA could undertake a rulemaking which would establish that all uses of composite wood products not meeting the CARB emission levels were significant new uses subject to the reporting and other regulatory requirements of a SNUR. Although the definitional issues of "newness" for what were previously available products may seem unusual, we believe there is precedent for this approach. During the previous EPA TSCA investigation, some EPA staffers suggested that a SNUR might be a possible approach.

Such a SNUR rule would require manufacturers (including importers under the TSCA definitions) to inform EPA 90 days before projected use and submit a variety of information. We believe that this requirement would effectively preclude the use of non-complying composite panels.

The factors listed for Agency consideration in promulgating a SNUR are broad:

- (A) The projected volume of manufacturing and processing of a chemical substance;

- (B) The extent to which a use changes the type or form of exposure of human beings or the environment to a chemical substance;
- (C) The extent to which a use increases the magnitude and duration of exposure of human beings or the environment to a chemical substance; and
- (D) The reasonably anticipated manner and methods of manufacturing, processing, distribution in commerce, and disposal of a chemical substance.

We believe that sufficient information could be submitted to justify this approach.

One SNUR rule, Mercury Switches in Motor Vehicles, 72 Fed. Reg. 56903 et seq., (October 5, 2007), addressed a situation in which mercury switches previously used widely in various automotive applications had been largely, but not totally, discontinued. In order to ensure that the new generation of non-mercury switches continued and the prior use of mercury was not widely reintroduced, EPA issued a SNUR. One could analogize this regulation to the situation with composite wood products after the effective date of the CARB rule. Non-complying products would be the equivalent of the mercury switches, requiring notification to EPA. Both have been used extensively in commerce previously and hence are not "new uses" in the traditional sense. However, the switches were found to be new uses in the context of the changing use pattern. The same could be said for non-complying composite panels.¹⁰ We submit that this concept would effectively address the situation and merits further consideration.

¹⁰ We are mindful that other SNUR proceedings have also addressed the "newness" in other fashions and questioned the SNUR approach with ongoing uses. See, for instance, Burkholderia Cepacia Complex, 68 Fed. Reg. 36315 (June 13, 2003).

B. Manufactured Housing Regulations

The Department of Housing and Urban Development is considering a revision of its manufactured housing regulations regarding formaldehyde. Although we understand that the proposal may only cover the addition of medium density fiberboard to the regulation, the amendment would be an avenue to impose mandatory acceptance of the CARB rule for manufactured housing. This, in our view, is the proper venue for addressing formaldehyde in those homes.

C. Recreational Vehicles

Much of the current debate surrounding formaldehyde is driven by the reports of high formaldehyde levels in recreational vehicles procured by FEMA for Hurricane Katrina victims. The Sierra Club petition draws extensively on this situation in the petition. Although we are not privy to the specific details regarding construction of those units, it is our understanding that many of them contained lauan plywood and other products not meeting prevalent industry standards and that the units were sealed for extended periods of time in extraordinarily high heat and humidity.

The Recreational Vehicle Industry Association has adopted, as a condition of membership, the requirement that its members only use composite wood products that comply with the HUD standards. The mechanism therefore exists in that industry to ratchet down the levels to those of the CARB standard.

D. Market Pressure

We have already seen substantial interest among large purchasers of composite wood products in implementation of the CARB rule beyond the California borders. These requests have come from national chains that intend to adopt CARB levels and certification requirements in all of their buying decisions. More can be done through outreach and contact with their trade associations and other national distributors and retailers.

The complexity and cost of duplicate inventories will also strongly influence this unified approach.

E. Industry Standards

CPA has for many years developed and maintained industry standards for formaldehyde emissions, setting levels lower than those that would otherwise be imposed by regulatory bodies. New standards under development for particleboard and MDF will incorporate the new CARB Phase 1 levels.

A combination of efforts could be used to promote the national recognition of the CARB formaldehyde standards. However, we must be cautious that the steps taken do not simply disadvantage those in this country who choose to comply, while others reap the benefit of selling less costly, higher emitting products.

VI. Requested Information

EPA posed a number of questions regarding the current and future market for CARB compliant materials and low-emitting alternative products. Unfortunately, good data is not

available—the responses below are based on estimations by association staff and are provided more for scoping purposes than for accuracy. Information below is with respect to particleboard and medium density fiberboard.

1. Present domestic composite wood market (exclusive of California) complying with Phase 1 and Phase 2 CARB emission limits.

The industry has been working diligently to meet the Phase 1 levels as quickly as possible.¹¹ Many customers have picked up the standards and are requesting compliant material early, so that panels and finished goods are in the stream of commerce well before the January 1, 2009 effective date. Some producers were in compliance with Phase 1 when the rule was promulgated. Others will have to make adjustments in raw materials, resin systems, equipment and process operations in order to meet the levels. As described above, panel manufacturers need to consistently produce boards with significantly lower emissions than the limits in the CARB rule to ensure that variability in the process does not result in some tested boards being over the limits.

Many of our members have told us that they will not differentiate products going to California from those sold elsewhere in the country. There are many explanations for this. First, the idea of double inventories with the attendant paperwork and expense is not feasible. Second, the panel manufacturers are not always certain where their products will end up. The chance of unwitting non-compliance is real. Third, many significant customers are demanding the same product for all areas of the country. For these reasons, in submissions to CARB, we consistently assumed that a vast majority of particleboard and MDF production after the effective dates

would meet the CARB standards. We conservatively estimate that 80% or more of our members' production will be CARB compliant. We can not estimate what importers and foreign manufacturers will do.

Current compliance with Phase 2 levels is very low—probably less than 1%. Again, this is an estimate since there is no actual data. These are specialty, value-added products typically carrying a significant premium above the market price for industrial grade particleboard and MDF. They are made from a variety of different types of resins including MDI (an isocyanate based adhesive), phenol formaldehyde, melamine fortified or other types.

2. Future Domestic Composite Wood Market.

Inasmuch as producers are now working to achieve Phase 1 compliance and certification, the answer above regarding Phase 1 also responds to this inquiry.

Compliance with Phase 2 levels will require extensive investment by most producers with incident higher operating costs. Consequently, it is unlikely that significant quantities of Phase 2 product will be demanded by composite consumers until just shortly before the effective date for Phase 2 in January of 2011. Market forces or technology changes could alter this prediction, however. As Phase 2 approaches, we expect the same forces that press for uniformity of products now will also be in effect then, leading to a major shift to the lower emitting products across the country. Generally, CPA expects the CARB rule to become a de facto national standard, with almost all domestic production eventually in line with both Phase 1 and Phase 2 levels. Industry is already in the process of harmonizing its ANSI standards with the rule.

¹¹ A distinction needs to be drawn between meeting CARB emission levels and meeting all aspects of the CARB rule. Third party certification of the producers is a requirement of the rule, yet no third party certifier has yet been approved. CPA has an application pending.

Neither domestic composite consumers nor domestic composite suppliers wish to maintain dual inventories. Thus, regionalism is unlikely to have a significant impact. However, as the costs of compliance with Phase 2 will likely be higher, there will be more incentive to differentiate by region or customers. Nonetheless, we expect market forces to drive most of the producers to nation-wide compliance.

3. Formaldehyde Emitting Substitutes.

First, we'd like to clarify a common misconception. Virtually all panel products, like the natural wood from which they are made, emit some measure of formaldehyde. Formaldehyde emissions have been documented from solid lumber, with some species emitting more than others. The CARB ATCM recognizes "no added formaldehyde" ("NAF") and "ultra low emission formaldehyde" ("ULEF") products and provides different treatment for both. Emissions from both NAF and ULEF are extremely low. For this reason, CARB allows an exemption from 3rd Party certification for these composites.

Achieving emissions at the ULEF and NAF levels referenced in the CARB ATCM standard usually comes at a significant price premium, however. These products are available from CPA members today, but the industrial particleboard and MDF markets typically use them only in specialty applications because of their additional cost. It is estimated that current particleboard and MDF products complying with the ULEF and NAF standards comprise less than 2% of the market. We cannot predict how the market will react to these products as the Phase 2 emission limitations draw near; however, broad changeover is not currently anticipated.

4. Composite Wood Products Used in Manufactured Housing.

(i) We estimate that less than 3% of the particleboard and MDF sold by domestic manufacturers is currently going into manufactured housing.

(ii) The CARB emission limits in Phase 1 of the standard are not significantly different from the current HUD standard for particleboard manufactured home decking -- 0.18 ppm vs. 0.20 ppm.¹² There is no emission limit for MDF referenced in the HUD standard, though CPA has commented in favor of one in the past and we understand that HUD is considering amending its rule to include MDF.

(iii) CPA estimates that the manufactured home market for particleboard and MDF products is less than 300 million square feet, ¾" basis annually.

(iv) See (i) above.

(v) CPA's database is not this specific.

We would be pleased to discuss these matters in more detail.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'T. Julia', with a stylized flourish extending to the right.

Thomas A. Julia
President

¹² The original limit for particleboard in the HUD rule was 0.30 ppm. In 2005 HUD updated references to the ANSI Standard for Particleboard [ANSI A208.1-1999] in the regulation which included a 0.20 ppm limit for MHD. However, they did not change the 0.30 ppm limit for particleboard in the text of the regulation [FR 72024 11/05/2005].