

## Wooden Shipping Crates Regulations

**On Jun 3, 2010, at 12:36 PM**

**Originator: Powell, Christopher M. - Old Dominion University**

Hello All,

I've got a request from one of our faculty for me to build a wooden shipping crate for a fume hood. I've built numerous crates in the past but only for domestic use. This one would be shipped internationally, to Lisbon first then back into WHOI (Geotraces project), but they would like to continue to use the crate worldwide in the future. I'm vaguely aware there are restrictions on certain types of wood being shipped into and out of certain countries, could someone point me in the right direction on where I can find these rules/regulations? Also any experiences/horror stories/advice are most welcome!

Thanks  
Chris

Christopher Powell  
Facilities & Equipment Manager  
Dept of Ocean, Earth and Atmospheric Sciences  
Old Dominion University  
757.314.2335  
[cmpowell@odu.edu](mailto:cmpowell@odu.edu)

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### **Response: Tom Wilson (SUNY)**

Hi Chris,

At this point I think it is ALL unprocessed/untreated wood into or out of essentially all countries. My two page paper on this subject from INMARTEC 2006 covers the regulations, how to build (and label) a crate that is exempt due to its construction, how to get a crate heat-treated and labeled/certified for international shipping, and what to say on your shipping paperwork:

[http://www.unols.org/meetings/2006/200610inm/SessionVa/Oceanographers\\_Guide\\_To\\_ISPM\\_15\\_wilson.PDF](http://www.unols.org/meetings/2006/200610inm/SessionVa/Oceanographers_Guide_To_ISPM_15_wilson.PDF)

The only thing I would add to this paper is that you might try to build a classic plywood and stringer crate, substituting plastic lumber for the components that are traditionally made from sawn lumber. Such a construction would be "inherently compliant" with ISPM15 due to the lack of unprocessed wood components.

There are a couple of types of plastic lumber at the local Home Depot: a lighter white "foamy" stuff sold as a substitute for wood in fascia, siding, and trim; and a heavier material made from recycled plastic and sold in several colors for decking. I would actually try the foamy stuff first as I believe it takes glue and nails, the recycled decking has to be screwed and I doubt any glue adheres to it. If you try this I'd be interested in knowing how it works.

Regards,  
Tom Wilson

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### **Response: Stuart Halewood (UCSB)**

Hi Chris,

There are various pdf's on this site that may help you:

<http://www.woodencrates.org/regulations/>

Also companies such as Wetlabs Inc and Seabird ship to various places and a while ago they changed their box materials. You could ask them what they are using now.

Cheers,

Stuart

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Stuart Halewood  
Associate Development Engineer  
Institute for Computational Earth System Science  
6835 Ellison Hall  
University of California  
Santa Barbara, CA 93106-3060

Phone: 805/893-2544  
Fax: 805/893-2578  
email: [halewood@icess.ic.ucsb.edu](mailto:halewood@icess.ic.ucsb.edu)

Captain Nemo:

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### **Response: Dale Hubbard (OSU)**

Hi Chris,

Here's a good place to start: <http://www.ispm15.com/faq.htm>

My understanding is that plywood is OK, and that *new* kiln-dried lumber (stamped w/ IPCC mark show on the website above) is OK.

cheers,

Dale Hubbard  
OSU

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### **Response: Christopher Griner (Woods Hole Oceanographic Institution)**

Chris,

I work in the Shipboard Scientific Services Group (SSSG) at WHOI. If a "man made" wood is used such as plywood, you should be good. Anything else including skids, supports like 2x4's, pallets, etc. must be Heat Treated and Stamped showing this. Plastic pallets have become very prevalent (as long as you get them back!) I am providing a link from our website concerning Wood Packing Material (WPM). It maybe worth checking with your organizations Shipping Department and Carpentry Shop.

<http://www.whoi.edu/page.do?pid=17975>

Regards,

Chris

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Christopher Griner  
Shipboard Scientific Services Group  
Woods Hole Oceanographic Institution

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### **Response: Dale Chayes (LDEO)**

If you are going to re-use the shipping container more than a few times, it is worth looking at the cost of shipping the shipping container (it's weight) over a plausible lifetime.

In general, wood crates:

- a) are cheap to build,
- b) often don't last very long, and
- c) are expensive to ship because of their weight.

In general, synthetic shipping crates (transit cases) are:

- a) expensive to buy,
- b) last longer than wood crates, and
- c) are cheaper to ship (lighter)

As Chris just brought up, the wooden crate vs. transit case trade-off is now modulated by the IPSM15 rules which tends to require commercial treatment of old-style crates or construction of new ones.

It's also worth including the labor cost of building your own shipping crates when figuring out the life cycle cost. You may choose to deduct the therapeutic value of doing the hands-on labor in your calculation. But above all, be honest with your self ;-)

Over the last decade we have shifted to using mostly poly transit cases (Pelican, Hardigg, etc), Action Packers, and Igloo coolers (among the cheapest and least "interesting" looking, but a bit harder to secure well.)

-Dale

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## **Response: Tom Wilson (SUNY)**

A couple of follow-ups to my post yesterday:

1) I second Dale's recommendation to use stock containers when possible, still there are situations when an item's characteristics recommend a custom case.

2) With regard to using plastic lumber as substitute for sawn wood in a plywood and stringer case, I did a test with some scraps this morning and contrary to my previous opinion epoxy adhesive bonds to plastic decking boards just fine. I'm still going to recommend the white plastic fascia board for stringer material because it should take nailing. If my student assistant has any slack time this summer I'll have him build a plastic lumber and plywood crate for salinity bottles and report on the results.

3) Passing along a trick I learned from Ed Schiemer of Chesapeake Bay Institute: with appropriate inside padding standard luggage makes surprisingly good transit cases. People often store luggage in the basement, then throw it out when the lining molds. I grab these when I see them by the road, rip out the lining, and keep them around. You can't beat the price and the light tare weight.

When I ship old suitcases by common carrier I typically put two bands of strapping tape completely around the suitcase and over the latches. You can't do this if you are sending something as airline checked baggage because TSA has to have access. Just like all our

bags full of show and tell goodies for RVTEC you KNOW the x-ray will result in a hand check.

For equipment shipped as checked baggage I use these locking luggage straps. They have a TSA keylock to allow security inspection while deterring pilfering and serving as a backup closure:

<http://www.christinecolumbus.com/products.asp?pID=1129>

In the carefree days before 9/11 I shipped entire cruises as the science party's personal excess baggage mostly in old suitcases. On one trip to Barbados five of us had 32 checked bags but the excess bag charge was significantly less than what we had been quoted for air freight. We prepared a temporary export declaration for everything, had US Customs stamp it, and had "no problem" with Bajan customs at the airport. This still worked for a smaller number of bags I sent out on an international cruise last year, but of course Your Mileage May Vary.

Tom