

APPENDIX C

Safety Inspection Check List for Shipboard Laboratory Vans

The attached checklist is intended for use by UNOLS Marine Superintendents and the Masters of vessels in the UNOLS fleet who need to determine if portable laboratory vans brought for use on their ships by Principle Investigators or other scientific personnel are reasonably safe. The placement and use of vans on research vessels is a complex issue involving many regulatory issues as well as common sense and an understanding of the shipboard environment. It is to be particularly noted that the United States Coast Guard and the American Bureau of Shipping regulate portable vans in various ways depending on the vans intended use and the registered tonnage of the vessel (i.e., a van acceptable for use on an “uninspected” vessel, such as the UNOLS “Intermediate” class vessels, may not be suited for a larger inspected vessel such as the UNOLS “Global” class.

Those responsible for inspecting vans as well as scientists planning to use vans should familiarize themselves with the “UNOLS Portable Scientific Vans Manual” (www.unols.org/committees/rvoc/vanspec.html). At the time this is written the manual is still a work in progress but it is an excellent source and is, henceforth, referred to as “the referenced manual.”

In some cases a portable van must meet specific requirements for use; if it does not it may not be used on a vessel. Table 1 in the referenced manual provides an outline of requirements for vans. As an example, a chemical storage, machinery or accommodation van, going on an inspected vessel must have a current USCG Inspection Certificate to be used on the vessel. In many cases, decisions about scientist supplied vans will be less clear and more subject to judgment.

The attached check list is intended as a guide. It is not intended to cover accommodation, chemical storage, power/machinery or explosives storage vans which all have specific requirements (see Table 1 in the referenced manual). It need not be used for vans brought on for storage use only. It is intended for laboratory vans of various types that will have scientific personnel working in them during the time the ship is at sea. The goal of the check list is to reasonably determine if the van is safe for the personnel that will be using the van and that it will not pose an unreasonable hazard to the vessel and embarked personnel.

Safety Inspection Check List for Shipboard Laboratory Vans

Ship: _____ Date: _____ Inspected by: _____

Van Description: _____ Van Purpose: _____

PI or Owner: _____ Cruise(s): _____

A. EXTERIOR

Yes	No	
		Does the van appear structurally adequate for the intended use and location (wind, spray, vessel motion, "green water on deck")? See Table 1 in the referenced document for the UNOLS bulkhead stiffening requirements?
		Does the van appear to provide some level of fire boundary between the working space inside the van and the exterior? Will it be located a safe distance from the ship's structure? See Table 1 in the referenced document for the UNOLS Fire Boundary Requirements.
		Is the van constructed of steel, aluminum or other substantial material suitable for marine use?
		Are there suitable attachment points for securing to vessel?
		Is the exterior condition acceptable: holes, obvious structural damage, etc.?
		Are doors equipped with latches to prevent self-releasing from vessel motion?
		Are doors that will be left open during van use equipped with holdbacks?
		Do doors open outward (escape direction)?
		Are external doors and hatches "weather tight?" Are overhead escape hatches "watertight?"
		Is there a label stating the lightweight and gross (tare) weight?
		When applicable, is there a label stating power requirements?
		Are the hook up receptacles (power, water, etc) in good condition?

B. INTERIOR

Yes	No	
		Are there two means of egress that can be opened from both the interior and exterior of the van? (Container doors do not qualify.) (Does not apply to storage vans.)
		If overhead escape hatch, does it open? Test it.
		If fitted with an overhead escape hatch, does it have a unobstructed ladder, footholds, steps or other method for accessing the hatch? Is there a safe method to get down from the top of the van?
		Does the electrical system meet good commercial standards (conduit, GFCI protection, commercial lighting enclosures, grounding)?
		Is the electrical system must be equipped with adequate and accessible circuit breaker protection?
		Are any internal doors free of locking devices and unblocked (Exterior doors may be fitted with locking devices for security and shipping as long as they remain unlocked while in use)?
		Is there adequate ventilation for the intended purpose?
		Are there suitable fire extinguishers?
		Is there a first aid kit, eye wash, and emergency shower if applicable?
		Is there emergency lighting for egress in the event of a power failure?
		Is there provision for internal communication (intercom, general announcing system, general alarm)?