

NATIONAL SCIENCE FOUNDATION SHIP INSPECTION PROGRAM



2014 RVOC MEETING

Purpose

The major purposes of the NSF Ship Inspection Program are:

- To assure that the capabilities of the research vessel and technical support meet accepted scientific community standards and expectations;
- 2. To assure the seaworthiness and safety of research vessels supported by NSF meet or exceed the standards set forth by the *UNOLS Research Vessel Safety Standards (RVSS)*, and applicable requirements of the International Maritime Organization, American Bureau of Shipping (ABS), the Code of Federal Regulations (CFR), and the U.S. Coast Guard;
- 3. To ensure NSF-owned ships as capital assets, are being adequately maintained;
- 4. To ensure NSF-funded science is scheduled on properly outfitted and maintained vessels.



Recently Completed





RVSS Appendix A & B Compliance:

Appendix A

There are still vessels that are not in full compliance with Appendix A as of the inspection.

Common findings include

- Levelwind sheaves and rollers
- Recording maximum tension for each cast

Appendix B

Vessel crews are making progress toward compliance with Appendix B, but we have yet to see a complete package for a single overboarding scenario during an inspection.

Most vessel operators are making progress on the system and component MCDs.

15 July 2014??



Naval Architects & Salvage Engineers

Marine Safety Alert: Lifting Gear



June 20, 2012 Washington, DC

Alert 02-12

OVERLOADED LIFTING GEAR ON FISHING VESSELS

Recently, several catastrophic failures of masts, booms, and lift cables have occurred on purse seine fishing vessels that have resulted in loss of life and severe injuries. Over the years many casualties have occurred onboard all types of fishing vessels attempting to haul in catches that exceeded the capacity of their winches. hoists, and associated equipment. These types of casualties are not unusual. This alert serves to remind all purse seine fishing vessel owners/operators and other fishing segments to ensure safe use of the haul equipment particularly matching the size and the capacity of the nets to the rated size and capacity of the winch/haul/hoist equipment, taking into account safety factors for various species, and other concerns such as the variable platform that a rolling fishing vessel and variable





Owners / operators, and vessel Insurers must ensure that vessel winch, haul and hoist systems are not modified by crew members to increase the lifting capacity beyond the rated design which in some cases can be done very easily. Such boosting of hydraulic systems must be prohibited and certain components should be protected with special seals. The machinery should be properly maintained and records kept in a historical log. It is imperative that owners / operators ensure every load bearing structure and its associated components are maintained in original condition, that they will be operated as designed using all appropriate safety margins for anticipated working

conditions. All such equipment will experience fatigue over time and as result must be inspected and monitored routinely. Bearings, limit switches, brakes, safety devices, sheaves, cables and other components, should be routinely inspected by certified organizations.

Overloaded Lifting Gear:

Several catastrophic failures of masts, booms, and lift cables have occurred on vessels that have resulted in loss of life and severe injuries.

The Coast Guard strongly recommends:

- * Know the design limits of load bearing structures and winches, hoist, and haul components;
- * Ensure they are inspected and tested on a regular basis;
- * Evaluate and revise operational procedures as needed.

Appendix A & B!



Naval Architects & Salvage Engineers

RVSS Appendix A & B Compliance:



- Know the design limits of load bearing structures and winches, hoist, and haul components;
- Ensure they are inspected and tested on a regular basis;
- Evaluate and revise operational procedures as needed.

Common Findings: Maintaining Accuracy

	Select Applicable Column FS			
Requirement or Attribute	FS of 5.0 or FS from 2.5 to 4.99		FS from 2.0 to 2.49	FS from 1.5 to 1.99
Tension Monitoring				
Tension measuring system maintained with 4% accuracy		Applies		
Tension measuring system maintained with 3% accuracy			Applies	Applies

One common weak area is the concept of "maintaining" accuracy within 4% or 3% depending on the factor of safety selected. There is a need for a standard protocol that may be shared within the fleet.

Common Findings: Log Maximum Load for Each Cast

	Select Applicable Column FS			
Requirement or Attribute	FS of 5.0 or higher	FS from 2.5 to 4.99	FS from 2.0 to 2.49	FS from 1.5 to 1.99
Logbooks: UNOLS wire identifier: Cable Inventory/History and Running Use				
Maximimum load for each cast by calculation or monitoring.	Applies	Applies	Applies	Applies

One of the requirements in Appendix A is to log the maximum tension per cast. For the crews that record the tensions electronically into a data file (as most do), this is an extra step to post process the data and meet this criteria.

Best Practices: Appendix A

Drop#	Drop Date & Time	Maximu m Tension Per Cast (Lbs)	Maximum Payout of Each Deployme nt (Meters)
0	5/5/12 13:45	2987	0
1	5/8/12 2:34	1859	1000
2	5/9/12 2:06	1568	2000
3	5/9/12 22:06	2368	4572
4	5/10/12 2:08	1364	1100
5	5/11/12 2:41	2050	4353
6	5/11/2012 5:14	1502.9	1811.5
7	5/11/2012 19:41	2312.3	4617
8	5/12/2012 3:07	2016.9	4200.3
9	5/12/2012 23:00	1604.7	2000
10	5/13/2012 13:15	2859.1	4614.8

RV ATLANTIC EXPLORER:

Logs both the payout per cast and payout at maximum load

Common Findings: Sheave and Fairlead Roller Diameter

Older Levelwinds limit FS to 5.0

	Select Applicable Column FS			
Requirement or Attribute		FS from 2.5		
'	higher	to 4.99	to 2.49	to 1.99
Sheaves and Fairlead Rollers				
Sheaves & Rollers: As large as practical	Applies			
Sheaves & Rollers: D/d ratio meet 40:1 or		Applies Applies App		Applies
400d1 whichever is greater		Дриос	тррпоо	тррпос
Sheaves: Groves as close to d as possible	Applies			
and no more than 1.5d		Applies		
Sheaves: Groves per Ref A 1.1				
(Groove size relative to nominal diameter				
of wire rope:			Applies	Applies
3/16" to 1/4" 3% to 6%;				
over 1/4" 2.5% to 5%)				

Common Findings: SWL Documentation

WLL or SWL identified on a block is not the same as max permissible tension. These blocks don't indicate if the WLL is for the tension member or for the shackle/block.





Best Practice: Sheaves

Clear indication of SWL expressed in terms of MPT.





Best Practices: Sheave Wrap Angle





RV SAVANNAH: Instrument blocks that measure the wrap angle in order to measure the tension in the cable.

RVSS Appendix B Compliance:



RV SIKULIAQ: Testing in the towing position

Develop a test plan/procedure

Include a line diagram

Test the system (all components) as it is intended to be used

Common Findings: Science Safety

More than just a preunderway safety brief is needed!

- Formally designate a Safety Officer
- Begin providing safety information prior to getting underway
- Provide general safety training information
 - RVOC Safety Training Manual & video
- Provide ship specific safety items
 - Use ship photos, PowerPoint or videos
- Include shipboard policies
 - Sexual harassment, drug & alcohol, environmental, etc.
- Reinforce in the Cruise Planning Manual, ship's web site, in labs and in staterooms

Common Findings: Lithium Batteries

- Develop policy and procedures on how to handle lithium batteries.
- The procedures should cover
 - usage
 - storage
 - disposal
 - how to respond to emergencies
- Incorporate into the cruise planning process.
- Note: Lithium batteries should not be treated the same as lithium ion batteries. Typical portable extinguishers can be used to extinguish a lithium ion fire.

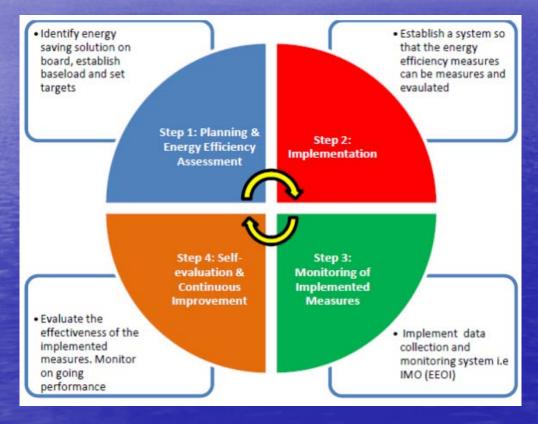
Common Findings: Fuel Efficiency

Need for a *methodical* approach to help use fuel as cost effectively as possible. Requires the ability to take dynamic action based on real-time performance data and known benchmarks. Shipboard Energy Efficiency Management Plan (IMO requirement >400GT) comprised of strategic and tactical actions.

- Examples of <u>strategic</u> actions that can be adopted:
 - Repowering
 - Advanced hull coatings
 - Optimized propeller and rudder design
 - Addition of stern wedges
 - Use of shaft generators
- Examples of tactical actions that can be adopted:
 - Speed management / real time fuel flow monitoring
 - Trim/draft optimization
 - Maintenance: Tune engine compression, u/w hull cleaning, etc...
 - Energy conservation
 - Provide crew and staff guidance and awareness training



Common Findings: Shipboard Energy Efficiency Management Plan





Common Findings: Shipyard Documentation

- Lack of post-shipyard documentation/reports
 - Summary of what was accomplished
 - Records of clearances, NDT, etc.
- Incomplete NDT surveys
 - "portable" equipment that hasn't moved in years (under winch foundations, A-Frame foundations, cranes
 - bilges, machinery foundations
 - internal structure webs, flanges
- Need to maintain/update shell expansion plans
 - Document readings and plate renewal

Common Findings: ADA

- In order to be more ADA capable vessels could make improvements in the following areas:
 - Incorporate more ADA awareness and requirements into the pre-cruise planning process.
 - Improve access to science berthing from the main deck.
 - Improve markings to access the main deck from the science berthing area.
 - Improve lighting, handrails, and retro-reflective tape in stairwells and egress routes.
 - Install visual alarms to augment audible alarms.
 - Remove obstacles in the passageways.

Common Findings: Human Factors



Designation: F1166 - 07 (Reapproved 2013)

An American National Standard

Standard Practice for Human Engineering Design for Marine Systems, Equipment, and Facilities^{1,2}

Content

11.5.2 The content of labels shall be determined by using the following guidelines:

- Describe Function. Control and display labels shall indicate the function of the device rather than the technical name for the device. For example:
 - VOLTAGE rather than VOLTMETER
 - POWER ADJUST rather than POWER ADJUSTER SWITCH.
- Describe Control Movement. Control labels shall indicate the result of a control movement by either words or appropriate symbols (e.g. RAISE, START, +, ↑, →).
- Include Units of Measure. These units (e.g., psig, volts, kPa, mm) shall appear on the face of displays, not on the labels.
- Label Components Consistently. Label terminology shall be consistent for the same controls and displays on different equipment or systems.

Each control and control setting should be labeled. The label should describe the control function and the result of the control movement in words and/or symbols.

All deck equipment controls should be labeled consistently and be clearly visible by the operator with adequate lighting and a conspicuous format.

Best Practices: Human Factors



Best Practice: Hydraulic Hoses

- Tag provides the serial number of the item for cross reference in a Hose Log and installation date.
- The following information should be provided on the tag and/or log:
 - Hose serial number
 - Hydrostatic Test Pressure and Test Date
 - Installation or Replacement
 Date



Best Practices: Realistic Drills





Best Practices: MOB

POINT SUR Life-size MOB



BARNES Pre-rigged Davit



Best Practices: Wet Lab Gas Detector



RV FALKOR: Installed gas sensor system that measures the level of multiple gases in the Wet Lab where the fume hood is located.

Oldham MX43

http://www.oldhamgas.com/en/g
as-detector-controller-mx-43



Best Practices: Sea Water Ice Machine



RV SAVANNAH:

Ice machine on aft deck makes ice from fresh or sea water

Best PR Gimmick:







April 30, 2013 Washington, DC

03-13b

Surge Protective Devices Onboard Vessels (correction with additional information)

We've all seen them and used them. Surge protective devices (SPDs), more commonly known as surge protectors or power strips help protect our expensive electronic devices from being damaged from excessive currents and allow us to simultaneously deliver power to multiple devices. This safety alert addresses the use of certain electrical protection devices onboard vessels and the inherent risks they may cause. Most commercially available SPDs are designed for use ashore and will interrupt only the hot conductor when a surge occurs. What does that mean for the ship owner/operator? It means that while these devices may provide protection in our homes and offices, these same devices may be a fire risk onboard vessels.

A marine casualty investigation of two separate stateroom fires onboard a U.S. Flag Container ship revealed that the sources of the fires were attributed to the use of SPDs plugged into a lighting circuit. It was discovered that a ground had developed on another circuit that was connected to the same distribution panel providing power to the staterooms. This ground created an imbalance of voltage between the two power conductors supplying the SPDs which caused excessive currents, overheating, and subsequently, a fire. In this instance, even if the SPDs automatically tripped as designed, only one power conductor would have been secured while the other would continue to



provide power, possibly shorting to the device's ground wire and the structure of the vessel.

Surge "Protective" Devices:

Most surge protects are designed for use ashore and will interrupt only the hot conductor.

A Delta wired circuit has two hot leads one at +/-60 VAC, the other at +/-60 VAC, simultaneously to provide the 120 VAC potential. Here lies the problem with inexpensive and older SPDs that only disconnect one "hot" terminal lead. The other "hot" terminal remains hot if the circuit breaker supplying the receptacle and SPD does not trip.

It should be noted that related issues (mismatches between Delta or WYE systems) have been reported with 120 VAC Uninterrupted Power Supplies purchased ashore and used onboard vessels. Such devices should be selected to match the power supply configuration.





October 4, 2012 Washington, DC

160.053/116/0

Alert 3-12

PROBLEM WITH MUSTANG INFLATABLE PFDS

The Coast Guard has become aware of certain Mustang Survival Inflatable PFDs with Hammar MA1 hydrostatic (HIT) inflation systems which may not inflate and require a new re-arm kit to properly inflate by manual or automatic activation. This safety alert identifies which products are affected. Certain inflatable PDFs may be subject to delayed or non-inflations. To determine if you are impacted please follow the instructions below.

USCG Approval	Mustang Product
N/A	MA7214 HIT inflatable re-arm kit
N/A	MA7218 HIT inflatable re-arm kit for LIFT
160.076/8611/0	MD0450 Inflatable Vest PFD with LIFT
160.076/5204/0	MD0451 Inflatable Vest PFD with LIFT (no harness)
160.076/5201/0	MD3183 Deluxe Inflatable PFD with HIT
160.076/8608/0	MD3184 Deluxe Inflatable PFD with HIT (with harness)
160 076/5300/0	MD3188 Inflatable Work Vest/PED with HIT

MD3188 Inflatable Work Vest/PFD with HIT

If you have a re-arm kit MA7214 or MA7218 you need only to check the lot number on the CO₂ cylinder label. If your CO₂ cylinder is marked with lot numbers 404121 or 404122 please contact Mustang Survival's customer service group at the number below.

If you have a PFD listed above refer to the sewn-in approval label to determine if it was "Made in Canada" and the "MFG DATE" is April or May 2012. If so, you will need to check the lot numbers of the CO2 cylinder. The CO2 cylinder lot number is visible through the yellow bladder fabric. Manually unpack your PFD by opening the zippers and unfolding your PFD. Find the CO2 cylinder that is attached to the round inflator within the yellow bladder. Press the yellow bladder fabric against the cylinder to read the label to view the lot number through the fabric. If your CO2 cylinder is marked with lot numbers 404121 or 404122, please contact Mustang Survival's customer service group for instructions and to arrange for a reolacement inflator assembly.

RECREATIONAL: INFLATABLE TYPE II PFD UNINSPECTED COMMERCIAL: INFLATABLE TYPE V PFD ADULT - UNIVERSAL USER WEIGHT: More than 80 lbs. (36 kg) CHEST SIZE: 30-52 IN (76-132 CM)

CHEST SUZ: 30-22 IN (76-132 CM)
USCQ approved for use on recreational boats by persons at least 16 years of age. Also approved for Uninspected.
Commercial Vessels (see label LIN296)
An owner's manual must be provided with this PFD. Not approved for use on personal valuerard, for white valer personal valuerard, for white valuer valuers of the value of value of the value of

To avoid death by drowning, read all the WARNINGS AND CAUTION'S coasted on label LN1287 & 1290 before using this PFD. TEST THIS DEVICE AT THE BEGINNING OF EACH SEASON AND SERVICE ANNUALLY. SEE "CAPE AND STORAGE INSTRUCTIONS" LABEL LN1919 FOR SERVICE RECORD TABLE AND REFER TO INSTRUCTIONS IN OWNERS MANUAL.

MODEL: MD3183 MFG. DATE: Apr2012 USCG APPROVAL NO.:160.076/5201/0

TYPE II RECREATIONAL MUSTANG SURVIVAL
TYPE V COMMERCIAL Toll Fines 1-300-526-650INFLATABLE PFD www.mustangus-invisi con
TITO Issue No. custeerv@mustangus-invisi con
DT NO.; SG Made in Canad
LINTERSO

Mustang Survival Inflatable PFD's:

Certain Mustang Survival Inflatable PFDs with Hammar MA1hydrostatic (HIT) inflation systems may not inflate and require a new re-arm kit to properly inflate by manual or automatic activation.







Lot number on cylinder label





UNITED STATES COAST GUARD

U.S. Department of Homeland Security

MARINE SAFETY ALERT

Inspections and Compliance Directorate

August 30, 2013 Washington, DC Alert 08-13

CONFINED SPACE ENTRY DANGERS Understanding Hazards

This Safety Alert serves as a reminder to Coast Guard personnel and the maritime community of the potential dangers of confined space entries. During two recent inspections, Coast Guard Inspectors' gas meters alarmed, preventing a potential loss of life or serious injury.¹

In the first case, an inspector was on board a tank vessel to conduct a Port State Control Examination. In anticipation of the examination, the crew opened the hatch to the Freefall Lifeboat to let it air out. As the Inspector entered the lifeboat his gas meter alarmed and he quickly exited. Upon investigation, it was confirmed with ship's equipment that Carbon Monoxide had collected in the lifeboat. Wind conditions had been blowing exhaust from the main stack into the lifeboat. Although not a confined space by OSHA or Coast Guard standards, the risks were the same.



In the second instance, while inspecting the #1 deep ballast tank on a deep draft container ship, an

experienced marine inspector was going to climb through a box-like structure formed by floors and longitudinals in the #1 bay, just aft of the collision bulkhead. The "box" had only two lightening holes. Prior to entering the first lightening hole the inspector put his 4-gas meter through. It immediately alarmed for low O2. The inspector exited the ballast tank. While the ballast tank had been ventilated and was safe, the inspector failed to recognize that the "box" formed a confined space within a confined space and had not been cleared by the shipyard competent person.

Confined Space Entry Dangers:

The Coast Guard **strongly reminds** all shipboard personnel and those associated with inspections, surveys or audits of vessels worldwide, that hazardous atmospheres are frequently present onboard vessels and pose a great risk to personal safety. Besides the use of a personal gas meter for immediate protection, all organizations should have policies and procedures in place that address accessing these and make available the areas appropriate safety equipment for personnel.



UNITED STATES COAST GUARD

MARINE SAFETY ALERT

Inspections and Compliance Directorate

April 8, 2014 Washington, DC Alert 03-14

FAILURE OF HAND PORTABLE FIRE EXTINGUISHER

This Safety Alert serves as a reminder to vessel owners/operators and fire safety equipment servicing companies to use caution when replacing components on hand portable fire extinguishers. While examining the activities surrounding a fire onboard a vessel, Coast Guard investigators from Sector Hampton Roads learned of the failure of a hand portable 15 pound (lb) Carbon Dioxide (CO₂) extinguisher. During a fire-fighting event, a crewmember attempted to use a 15 lb CO₂ extinguisher, but the extinguisher failed to properly discharge and only seeped from the neck of the extinguisher. The fire was extinguished by another crewmember using a dry-chemical fire extinguisher.

The investigators had the extinguisher examined at a fire-fighting equipment service center. They determined that the hose and discharge horn had been replaced at an earlier time. The end of the hose screws on to a diffuser on the side of the discharge valve/handle assembly of the extinguisher. The diffuser is a ported protrusion on the male end of a ninety degree fitting. On the side of the protrusion are orifices through which the CO_2 flows. The examination revealed that the spherical end of the protrusion, which contains no orifices, bottomed out against the orifice in the connection fitting that leads to the hose and horn assembly. The flow of CO_2 was thus completely blocked.

It was further noted that the male threads of the diffuser were tapered US national pipe threads, while the female threads of the hose connection were straight. This difference likely allowed the hose connection to be tightened further than intended on the diffuser threads, permitting the spherical end of the diffuser to bottom out against the orifice in the tube. This may have also resulted in the reported leakage from the neck of the extinguisher due to back pressure.



Failure of Hand Portable Fire Extinguishers:

Investigators determined that the hose and discharge horn had been replaced at an earlier time. The end of the hose screws on to a diffuser on the side of the discharge valve/handle assembly of the extinguisher. The diffuser is a ported protrusion on the male end of a ninety degree fitting. On the side of the protrusion are orifices through which the CO2 flows. The examination revealed that the spherical end of the protrusion, which contains no orifices, bottomed out against the orifice in the connection fitting that leads to the hose and horn assembly. The flow of CO2 was thus completely blocked.



Naval Architects & Salvage Engineers



UNITED STATES COAST GUARD

MARINE SAFETY ALERT

Inspections and Compliance Directorate

December 31, 2013 Washington, DC

Entanglement Accidents

A recent marine casualty involving a severe injury to a crewmember aboard an inspected passenger vessel reminds us that these hazards happen in any segment of the maritime industry. Moving, rotating, and reciprocating machinery may include (but are not limited to) rotating or spinning shafts, fan blades, fan or serpentine belts, gearing, hydraulic ram assemblies, couplings, arms, linkages, windlasses, drums, blocks, booms, and sheaves, etc.. In this instance, a crewmember's hair became entangled with a rotating propeller shaft as the crewmember was on watch and conducting rounds. The crew member sustained life-threatening injuries and is



Alert 11-13

permanently disfigured. Although the investigation of this casualty is not complete, initial observations serve to remind all vessel owner / operators, and crew members of the hazards onboard vessels of all types.

The Coast Guard **strongly recommends** that vessel owner /operators evaluate their vessels for the presence of moving, rotating, reciprocating or articulating machinery hazards, and implement documented common-sense policies, procedures, and safety measures:

- √ Never wear loose fitting clothing, jewelry or personal gear in the vicinity of such equipment.
- ✓ Keep long hair tied back to avoid entanglement;
- ✓ Install and maintain guards and protective equipment to prevent personnel contact;
- ✓ Post appropriate hazard signs;





- ✓ Never energize machinery unless certain that all personnel are well clear;
- Follow proper lock-out tag-out procedures when working near or on such equipment, and
 ensure it has been verified that local or remote motor controls have been tagged-out or
 disabled and completely de-energized;
- Develop procedural safeguards that eliminate, as far as practicable, personnel's need to be in proximity to hazardous machinery when in operation;
- Regularly conduct onboard safety training to emphasize safety procedures and the hazards of machinery, include deck and engine department, cargo equipment, and tools;
- Always be vigilant for new risks and dangers presented to your crews and passengers.

This alert is for informational purposes only and does not relieve any domestic or international safety, operational, or material requirement. Developed by the Fifth Coast Guard District, Portsmouth, VA. Questions may be addressed to LCDR Ken Morton, (757) 398-6284, or may be forwarded to DOS-Drevention-DPI-PFB-Staff@usog.mil.

Entanglement Accidents:

According to U. S. Bureau of Labor statistics, in 2012 commercial fishing was the second most dangerous occupation in the country, with over 117 fatalities per 100,000 workers. This alert serves to remind commercial fishing vessel owners, operators, and crew members of the dangers associated with working around moving deck machinery, rigging, and equipment.



Marine Safety Information Bulletin



Marine Safety Information Bulletin

Commandant U.S. Coast Guard Inspections and Compliance Directorate 2703 Martin Luther King Ave. S.E. Stop 7581Washington, DC 20593-7581 MSIB Number: 01-14 Date: January 14, 2014 Contact: Patrick Mannion Phone: (202) 372-1033 E-Mail: Patrick.J.Mannion@uscg.mil

Recreational and Medicinal Marijuana Use Policies for Maritime Transportation Workers

The U.S. Coast Guard is providing this notice to ensure that mariners, marine employers, Medical Reviewing Officers and the public are knowledgeable of the continuing prohibition of marijuana use by those serving in safety-sensitive positions in the maritime transportation industry.

It is important to note that marijuana remains a drug listed in Schedule I of the Controlled Substances Act. It remains unacceptable for any safety-sensitive employee serving in the maritime industry and subject to drug testing under the Department of Transportation's drug testing regulations to use marijuana. The Department of Transportation's Drug and Alcohol Testing Regulation – 49 CFR Part 40 – does not authorize the use of Schedule I drugs, including marijuana, for any reason.

As such, Medical Review Officers <u>will not</u> verify a drug test as negative based upon learning that the employee used "recreational marijuana" or "medicinal marijuana". <u>Furthermore, mariners/employees</u> that hold a Merchant Mariner Credential and fail a drug test due to recreational or medicinal marijuana usage, will be subject to administrative action against their credential in accordance with federal regulations.

Recreational and Medicinal Marijuana Use Policies for Maritime Transportation Workers:

The Department of Transportation's Drug and Alcohol Testing Regulation – 49 CFR Part 40 – does not authorize the use of Schedule I drugs, including marijuana, for any reason.

Congratulations! Best Grub, Cleanest Bilge & Fastest MOB Recovery Winners



Congratulations! Best Grub, Cleanest Bilge & Fastest MOB Recovery Winners







Questions?



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