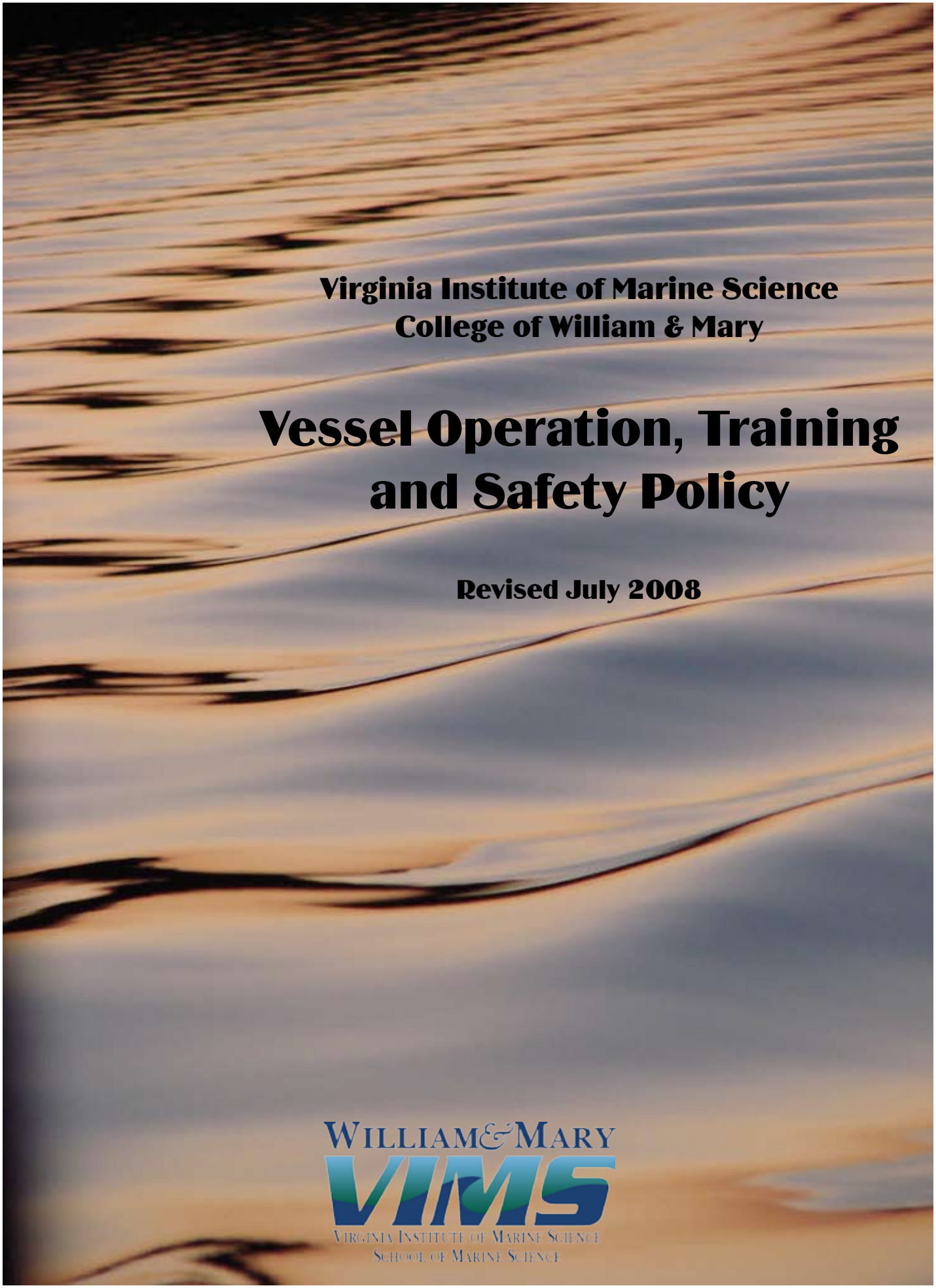

Virginia Institute of Marine Science
College of William & Mary

Vessel Operation, Training and Safety Policy

Revised July 2008

WILLIAM & MARY
VIMS
VIRGINIA INSTITUTE OF MARINE SCIENCE
SCHOOL OF MARINE SCIENCE

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College of William & Mary

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I. INTRODUCTION

A. Purpose

The purpose of this policy is to set forth the operational guidelines adopted by the administration of the Virginia Institute of Marine Science (VIMS) to provide for the safety and training of all personnel involved in vessel field activities associated with the Institute's marine science research, education and advisory service programs.

As a member of the University-National Oceanographic Laboratory System (UNOLS) VIMS will strive to comply with the guidelines for the operation of its vessels and other research activities involving the use of non-Institute owned vessels, as set forth in the UNOLS SMALL RESEARCH VESSEL COMPENDIUM, and the UNOLS RESEARCH VESSEL SAFETY STANDARDS.

B. Scope

This policy applies to all personnel, including faculty, staff, and students who may use or work upon any vessel, regardless of the vessel's ownership, on tasks or projects under the auspices of VIMS. This policy also applies to contractors, volunteers, or visitors who may become directly or indirectly involved in any vessel activity under the Institute's purview.

Governmental agencies or visiting marine science programs utilizing Institute marina and boat ramp facilities at the York River and Wachapreague campuses must adhere to applicable sections of this policy. This will include the wearing of personal flotation devices (PFDs), the submission of float plans, and may encompass other requirements as deemed necessary by the Marine Superintendent or his/her designated representative.

All VIMS personnel participating in or planning scientific activities involving the use of a vessel are required to become familiar with and adhere to the provisions of this policy. Noncompliance may result in disciplinary action. Liability protection may be compromised should injuries or death be attributed to negligence on behalf of individuals delegated the responsibility for the safety of the injured parties. Injuries incurred as a result of noncompliance might not be covered by Workman's Compensation.

A copy of this policy may be obtained from the Vessel Service Center, and is available for review in the VIMS Hargis library, and also online at:

http://www.vims.edu/admin/vessels

C. Responsibilities and Authority

1. Dean/Director

The Dean/Director is ultimately responsible for the safety and health of all personnel assigned to or present at VIMS.

2. Director of Research

The Director of Research is directly responsible to the Dean/Director for assuring that the health and safety of all personnel involved in Institute research activities involving the use of vessels, owned or not owned by the Institute have been addressed. The Research Director's endorsement signature on proposals submitted to funding resources acknowledges this responsibility has been addressed.

3. Director, VIMS Eastern Shore Laboratory, Wachapreague, VA.

The Director of the VIMS Eastern Shore Laboratory (ESL) is responsible for the health and safety of all participants in programs offered at the ESL under the auspices of the Institute. This includes oversight of visiting scientists and educational programs using Eastern Shore facilities as a base of operation.

4. Director of Operations, Support Services & Special Projects

The Director of Operations, Support Services & Special Projects is responsible for administrative oversight of the Vessel Service Center. He/She provides guidance and information to the Marine Superintendent and advises the Dean/Director on any and all matters related to vessel operations.

5. Marine Superintendent

The Marine Superintendent is directly responsible to the Dean/Director's designee, the Director of Operations, Support Services and Special Projects, for establishing, coordinating, directing, and evaluating the effectiveness of the Vessel Operation, Training, and Safety Programs for VIMS.

The Marine Superintendent and his/her designated representative, the Port Captain (Marine Safety/Risk Assessment Manager), are vested with the authority to examine all VIMS research/educational activities involving the use of vessels, regardless of ownership of the vessel, and may initiate action to stop any operation or hazardous practice where there appears to be impending danger of human injury or death, or of serious damage to equipment, material, or facilities.

It is the Marine Superintendent's responsibility to assure that Vessel Operators in Charge of each vessel within the VIMS research fleet are appropriately qualified.

6. Principal Investigators

Principal Investigators are personally responsible for assuring that all boat operations that are part of a program under their direction are conducted in accordance with this policy. This responsibility extends beyond Institute owned vessels and includes vessels owned by other governmental agencies, US documented or state registered boats, including privately owned vessels, and vessels operated in foreign countries to accomplish research under the auspices of the Institute.

7. Dean of Graduate Studies

The Dean of Graduate Studies has the responsibility for assuring that the health and safety of students participating in field activities have been addressed.

8. Master, Non-trailerable Research Vessels

The interrelationship of the Master of a vessel and the Chief Scientist is most unique. The vessel's Master is, in both law and tradition, solely and ultimately responsible for the safety and good conduct of the vessel and all persons embarked, including the scientific party. This line of authority remains in effect when the Institute's research vessels are visiting ports away from the Institute.

The Master of a vessel facilitates the Chief Scientist's mission in carrying out the research objectives of the cruise. In practice, when the Chief Scientist informs the vessel Master of what is desired, unless it is unsafe or illegal, it shall be carried out. In case of serious disagreement, the question can be referred to the Marine Superintendent for Administrative review, but it must be emphasized that if a decision has to be made on the spot, the authority of the Master is absolute. Safety and health precautions must not be subordinated or disregarded because of the urgency of a particular job.

9. Vessel Operator in Charge – Trailerable Vessels

Only persons who have been certified by the Marine Superintendent or his/her designee as VIMS Vessel Operator in Charge may operate small vessels used under VIMS auspices, regardless of the ownership of the vessel. The Vessel Operator in Charge is solely responsible for the safety of the crew and vessel at all times. It is the duty of the Vessel Operator in Charge to refuse to operate the boat if conditions are unsafe. The Vessel Operator in Charge and Chief Scientist may be the same person on a trailerable vessel. When confronted with safety considerations, the role of Chief Scientist must defer to the responsibilities of the Vessel Operator in Charge.

Vessel Operators in Charge are expected to understand and abide by all pertinent US Coast Guard regulations, Commonwealth of Virginia Boating Laws, and VIMS policies concerning boat operation. If scientific field endeavors require vessel operation in states other than Virginia, such as Maryland or North Carolina, it is the vessel operator's responsibility to seek and become familiar with applicable state boating laws. When scientific field endeavors require VIMS certified operator(s) to operate on waters outside the United States, the operator will be responsible for familiarity with International Navigation Rules. Vessel Operators in Charge will be solely responsible for violation of any regulation.

In the event of a vessel accident, the Vessel Operator in Charge is the primary person responsible for the vessel and crew. If the vessel or crew is in imminent danger, the Vessel Operator in Charge should attempt to contact the US Coast Guard immediately as well as emergency medical services. Contact with the VIMS Vessel Service Center should be made at the earliest opportunity once emergent concerns are addressed.

10. Chief Scientist

One member of the scientific party shall be designated Chief Scientist. Rarely, Co-Chief Scientists may be designated, but in such cases one should be clearly identified as spokesperson. This is to avoid placing conflict resolution demands from scientists on the Vessel Operator in Charge. The Chief Scientist is responsible for the coordination and execution of the entire scientific mission, not just his/her own portion of it. By custom, the personal and professional conduct of the scientific party on board a vessel and ashore is the responsibility of the Chief Scientist, under the overall control of the Vessel Operator in Charge.

In matters of safety, the Chief Scientist must always defer to the Vessel Operator in Charge. In many cases, safety matters are common knowledge, and not unique to research vessels. In other cases, there may be safety hazards unique to the research activity of which the vessel's crew may not be aware. In such instances, the Chief Scientist has a special responsibility to provide this safety information to the vessel's Operator in Charge.

11. Each Individual

The operation of a vessel entails certain unavoidable risks. Anyone aboard a vessel should be aware that risks exist and take prudent action to minimize them. Each individual has an inherent responsibility for his/her own personal safety and health as well as the safety and health of those with whom they are working in the marine environment.

II. GENERAL SAFETY REQUIREMENTS

A. Compliance with Safety Regulations

Attention to personal safety shall be paramount in all Institute activities to assure maximum practical protection for personnel and to prevent unnecessary exposure to injury and health hazards. In addition to safety requirements set forth in this Vessel Safety Policy, all Institute personnel are to comply with established safety rules and regulations as set forth in the Institute's OCCUPATIONAL SAFETY AND HEALTH PLAN. All persons will be responsible for warning others when it is believed that they are endangered by known hazards or by their failure to comply with applicable safety and health precautions. Safety and health precautions must not be subordinated or disregarded because of the urgency of a particular job.

B. Use of Drugs and Alcohol

Drugs and alcohol are not permitted on Institute vessels. The College of William & Mary is committed to maintaining a drug and alcohol-free workplace and a safe and healthy work environment for all employees. Consequently, all employees or personnel embarked are prohibited from engaging in the unlawful manufacture, distribution, dispensing, possession, or use of drugs or controlled substances on board vessels or in other College work places. The ability to perform safety sensitive duties can be compromised by legal drugs. Both over-the-counter medications as well as prescription medications are known to impair performance. Persons using prescription medications and who will be involved in performing safety sensitive duties are to adhere to the guidelines set forth in the College of William & Mary's Drug and Alcohol Procedures for VIMS Marine Operations, (Appendix A, page 32).

In the event a "serious marine incident" (as defined in 46 Code of Federal Regulations Parts 4.03, 4.05 and 4.06), occurs on one of the Institute's major research vessels, (*R/V Bay Eagle*, *R/V Pelican*, or *R/V Fish Hawk*), VIMS, the U.S. Coast Guard and other law enforcement officers have the authority to require crewmembers and all embarked personnel, (including scientific personnel), submit to drug and alcohol testing. In order to participate on a voyage aboard the Institute's major research vessels, personnel will have signed a form documenting Acknowledgment and Compliance with the College of William and Mary/VIMS Drug and Alcohol Procedures (Appendix B).

The College of William and Mary's Drug and Alcohol Procedures for VIMS Marine Operations (Appendix B) may be accessed on the Vessels home page, **http://www.vims.edu/admin/vessels**.

In addition to the College's policies concerning the prohibition of drugs and alcohol in the workplace, under current Virginia law all vessel operators (this would include Operators in Charge of VIMS trailerable vessels) are subject to drug and alcohol testing as stated in Commonwealth of Virginia Code 29.1-738.2:"Any person who operates a watercraft or motorboat which is underway upon waters of the Commonwealth shall be deemed thereby, as a condition of such operation, to have consented to have samples of his blood, breath or both blood and breath taken for a chemical test to determine the alcohol, drug, or both alcohol and drug content of his blood, if such person is arrested for operating a watercraft or motorboat which is underway in violation of subsection B of Code of Virginia 29.1-738 and 29.1-738.02……. No person under the influence of drugs or alcohol is to operate a boat under ANY circumstances. Violators of this rule will have their boat operation privileges suspended permanently.

C. Personal Responsibility in Securing Knowledge of Safe Boating Practices

The first priority in all field operations is the safety of personnel. The presence of inherent risks in all vessel activities requires that all individuals working onboard vessels accept personal responsibility in obtaining knowledge in safe boating practices. All marine science personnel engaged in vessel activities, regardless of vessel operator status, should participate in boating safety programs such as those offered by the U.S. Coast Guard Auxiliary and the U.S. Power Squadron.

"America's Boating Course," a joint effort between the U.S. Power Squadron and the Coast Guard Auxiliary, is available through the Hargis Library on a loan basis. This is a self-paced instructional program. When the student has completed the course and is ready for the final examination, a representative of the local Coast Guard Auxiliary will administer the final exam and award a certificate of completion upon successful passing of the course.

D. Use of Personal Flotation Devices (PFDs)

Anytime a person is at risk of accidentally going overboard, a U. S. Coast Guard approved Type I, II, or III personal flotation device (PFD) must be worn. This shall not include manually inflated devices.

Automatic inflated devices are not to be provided for general "pool" use, but individually owned and maintained per the manufacturer's instructions. Automatic inflated devices are to be examined for operational readiness before each use. It is the owner's responsibility to complete this inspection. The Institute assumes no responsibility related to the operation of personal automatic inflation devices. Manufacturer's guidelines for regular maintenance must be adhered to and should be documented. Individuals using "auto inflate" devices should avail themselves of an in-water training practicum to prepare for inflation failures.

Examples of when the wearing of a PFD is required:

1. At all times when a person is on an open deck and the vessel is not at a dock.
2. At all times when a person is loading, unloading, or cleaning a deck on a docked vessel.
3. Whenever a risk of accidentally going overboard exists, a PFD must be worn.

Examples of when wearing a PFD is not required:

1. When a person is inside the cabin of a non-trailerable boat.
2. When a person intentionally enters the water.

Weak swimmers and non-swimmers shall identify themselves to the Vessel Master/Operator and fellow crewmembers. Weak swimmers and non-swimmers must wear personal flotation devices that offer inherent flotation. Use of automatic inflated devices for weak and/or non-swimmers is especially prohibited. PFDs shall be of a **bright** color to enhance location of overboard victims. All PFDs shall be properly secured to prevent the jacket from slipping off the individual when unexpectedly entering the water. When field activities are performed after dusk and before daylight, the PFD must be equipped with reflective tape, a whistle and emergency light source. Institute personnel frequently involved in vessel field activities should be provided a PFD for personal use via funds from their departments or principal investigators. Ownership or assignment of personal safety equipment promotes interest in maintaining the gear in good condition as well as assuring proper fit.

E. Two-Person Rule

The Institute's two-person rule applies to vessel operations. At least two persons are required on board any boat involved in Institute activities except in these circumstances: launching/retrailering the boat or motoring in the VIMS marina. The Marine Superintendent or his/her designated representative may approve single-handed operation when warranted by special circumstances. During such operation, the engine safety lanyard must be appropriately attached to the vessel operator.

When trailerable vessels are operated on the Chesapeake Bay or beyond three miles from shore in coastal waters, two vessel operators endorsed to operate in these waters must be present.

F. First Aid and Cardio-Pulmonary Resuscitation Certification

Vessel Operators in Charge must maintain current certification in First Aid and CPR/AED as a prerequisite to operating Institute vessels. Vessel operators bear the responsibility for the safety of all on-board personnel and therefore are required to render medical assistance in the case of an injury or illness. The vessel operator, governed by one's own conscience, should seek a level of First Aid training that will allow self-confidence in the ability to provide competent medical intervention when necessary. All Institute vessels shall be provisioned with First Aid supplies.

G. Safety Briefing

It is the responsibility of all Vessel Operators in Charge to present a safety briefing to all on board personnel prior to getting underway. This safety briefing shall include fieldwork goals, intended route of travel, location and use of safety, communication and navigational aids and discussion of safe practices while underway, including wearing

of PFDs and person overboard response. Discussion should also be directed toward the use of sunscreens, eye protection, the wearing of appropriate footwear as well as the donning of seasonal appropriate apparel for protection from the elements. A review of basic vessel operating procedures shall be provided if requested by new field personnel. This briefing shall also afford an opportunity for embarked personnel to address personal concerns.

Vessel Operators in Charge must also ensure that all personnel are instructed in safe methods of performing particular tasks prior to initiating sampling. Efforts must be expended to confirm that each person has a clear understanding of his/her specific role and responsibilities during data collection activities and feels comfortable with assigned tasks.

The Institute's major research vessels shall comply with safety drills as required by 46 Code of Federal Regulations, Subpart 28.270 and endorsed by UNOLS. Drills shall be conducted at least once per month and documented in the vessel's drill manual. Pre–cruise safety orientations shall be provided to embarked personnel. Attendance shall be documented.

H. Visitors and Volunteers/Liability Release Forms Required

Liability Release forms (Appendix C) must be completed prior to embarking non-employees on Institute vessels. Liability releases are available in the Vessel Service Center's sign out area, the Institute's web page under "Quick Links" and forms, or downloaded from the Vessels home page: **http://www.vims.edu/admin/vessels**.

When liability waivers must be signed at a remote location, the information should be transmitted to the Vessel Service Center prior to getting underway. Access to this information will be essential should an unforeseen emergency occur during the day's activities. (See Part IV DAILY OPERATIONS – Section C)

I. Risk Management – Environmental and Personnel Considerations

Without pause, Vessel Operators in Charge must be vigilant and proactive in the recognition and assessment of inherent risks ever present in marine field activities. This is an ongoing process; reassessment should be repeated throughout the day's activities. The following is a list of factors to be considered:

Work to be performed
Scientific gear requirements, familiarity with use
Fuel requirements
Navigational requirements
Water depth/bathymetry
Crew health and welfare, limitations of the crew
Hours of operation
Weather, exposure to the elements
Vessel traffic, maritime restrictions
For trailerable vessels – familiarity with tow vehicle and trailer

This limited list is an example to help identify potential areas of risk in order to mitigate or eliminate them. Although this can be a long and arduous checklist, an experienced vessel operator feels comfortable making decisions to manage the risks involved with his/her research activity. A new vessel operator gains this knowledge from participating in field activities under the guidance of an experienced mentor.

J. Work Clothing

Compliance with this policy may not always be easy or necessarily accommodate the clothing that some individuals would prefer. Nevertheless, the safety of life and limb takes precedence over convenience and matters of personal taste.

Personal foul weather gear and flotation apparel worn during field activities shall be of a **bright** color in order to provide an easy target for rescuers should a person fall overboard. Dark colors, such as green, dark blue, brown and black, do not meet this requirement. In any unexpected person overboard incident, the ability to quickly locate the victim, and timeliness in retrieval of the victim, may dictate the difference between death and survival.

Hand protection should be worn whenever field requirements necessitate the handling of materials with potentially sharp surfaces or which may prove abrasive to the handler (e.g., cables). Gloves are especially recommended when field operations require the use of winches on board vessels or on boat trailers.

All personnel on board vessels shall wear hard hats during operations where there is danger of head injury from impact, falling objects, or risk of cable failure. Hard hats shall also be worn by operators of material handling equipment, including forklifts and cranes, during offloading and loading of gear on board vessels. All personnel assisting in these activities shall also wear appropriate protective headgear.

Appropriate footwear must be worn on board vessels and while traversing marina grounds. The season may dictate the type of soles or the degree of comfort required, but going bare footed or the wearing of open toed shoes, sandals, or "flip flops" is specifically forbidden. The wearing of closed toed footwear is especially important for persons wading or working in marsh zones or beaches where there is potential for material on the bottom that might lacerate unprotected feet.

K. SCUBA Diving

All scientific diving conducted from a VIMS vessel, at a minimum, will comply with the standards of the American Academy of Underwater Sciences and VIMS Guide for Diving Safety. All other diving, which is in support of the Institute's scientific mission shall be conducted by outside contractors and in accordance with OSHA guidelines for commercial diving.

OSHA defines scientific diving in 29 CFR 1910.402 as "diving performed solely as a necessary part of a scientific, research, or educational activity by employees whose sole purpose for diving is to perform scientific research tasks..."

Whenever diving is conducted from a VIMS vessel, the diving occurs under VIMS auspices and the VIMS Diving Control Board will approve the dive plan. The diving activity (SCUBA or hooka) must be noted on the vessel's float plan. The designated lead diver will be in charge of all diving operations. A VIMS Vessel Operator in Charge must remain on board at all times during diving operations.

The Diving Control Board must approve any variation to the vessel/diving policy prior to commencing the diving activity.

L. Compressed Gas Cylinders (SCUBA and Medical)

Self-Contained Underwater Breathing Apparatus (SCUBA) cylinders should be secured at all times to prevent damage to either the cylinder or its surroundings.

Emergency medical oxygen cylinders should be stored in their protective cases, and should never be deployed in the presence of petroleum products. Gas cylinders of any type must be kept away from excessive heat (>125 deg. F). All cylinders must be secured to prevent cylinder damage

M. Use of Radioactive Materials (RAM) Aboard VIMS Vessels

The use of RAM aboard VIMS research vessels is authorized where the NRC maintains jurisdiction of licensed material. Persons anticipating the use of RAM on vessels must coordinate with the Radiation Safety Officer. (Radiation Safety Plan) However, the use of RAM aboard vessels presents a number of potential problems not associated with a dedicated laboratory space in a building. A major concern, other than basic protective measures one employs to minimize exposure is that of researchers who are interested in environmental levels of natural and artificial radionuclides. These personnel, who often use research vessels to deploy equipment, are interested in levels of radioactivity at or close to zero values measured by state of the art equipment. Thus, their research is extremely sensitive to levels of radioactive contamination far below those of concern from a public health or regulatory perspective. For this reason, and in the interest of maintaining a minimum number of vessels upon which RAM research has been conducted, the following requirements have been established:

1. If you require a research vessel upon which experiments with radioisotopes will be conducted, note this on your original "Request for Radioisotope Approval and Use" form (Radiation Safety Plan).

2. Determine the approximate size of vessel, on board equipment necessary, and services required to conduct your experiments and note this on the form. Vessel Operations should be consulted to determine if a vessel previously used for RAM research is available that would fulfill your requirements. If a suitable vessel is identified, submit the name, or if no suitable vessel is available so indicate.

3. The quantities of RAM required on vessels must be justified as the minimum amount necessary to perform the research.

4. Proper monitoring of personnel and surfaces is required by researchers. Wipe surveys shall be conducted in and around surfaces exposed to RAM. If the RAM is of sufficient energy to be detectable by hand held survey instruments, scan surveys shall be conducted in addition to wipe surveys. Prompt survey documentation and submittal to the Radiation Safety Officer (RSO) is required. If objects, surfaces, or personnel are found to be contaminated, notify the RSO immediately. Decontamination and resurveys are the responsibility of the researcher at the discretion of the RSO.

5. Researchers are responsible for supplying consumable supplies such as adsorbent workbench paper, protective clothing, waste containers, decontamination supplies, and appropriate tags and labels.

6. Spill control/containment equipment sufficient to contain and clean up the quantity of RAM being used shall be supplied and carried on board by the researcher. Should a spill occur, the researcher shall promptly initiate a cleanup and shall notify the RSO as soon as possible. After the initial cleanup, a detailed survey and documentation is required and the RSO shall be notified of the results.

N. Use of Chemicals on board VIMS Vessels

The use of chemicals on board vessels introduces a wide range of safety concerns that require risk management planning prior to getting underway. Responsible transport, handling, use, and disposal of wastes must be addressed to insure that personal and environmental safety is maintained.

The work environment on board a vessel often lacks the availability of fixed safety equipment including eye wash stations and fume hoods, as well as quick access to emergency medical services. The movement of a vessel, in and of itself, presents a hazard. Responsible risk management by individuals using chemicals on board vessels will include a review of the Institute's Chemical Hygiene Plan. Consideration should be directed toward how each guideline is challenged by the environment found on board vessels and then mitigating these risks by incorporating measures to address these safety concerns. MSDS documents are required at the work station; it is the researcher's responsibility to provide this information.

The Institute's Chemical Hygiene Plan may be found at: **http://www.vims.edu/admin/safety/chemhyg.html**

O. Vessel Capacity

All Institute trailerable vessels are required to have an installed capacity plate that designates the number of persons and/or combined total weight carrying capacity of the vessel. It is the responsibility of the Vessel Operator in Charge to stay within these limits and to have all weight evenly distributed and secured so that the boat will trim properly. Non-trailerable vessels will adhere to passenger carrying guidelines as set forth on the vessel's Certificate of Inspection, when appropriate for the service of the vessel.

P. Vessel Maintenance Standards

With regard to vessel maintenance projects, standards and recommended practices addressed by the American Boating and Yacht Council (ABYC) shall be used as the recognized professional guidelines for all design, construction, installation, and servicing of all vessel systems.

Q. Vessel Modifications and Stability Evaluations

Vessels that have been modified from their original design are to receive stability evaluations. Major vessel modifications should be planned with the oversight of a naval architect to assure that the seaworthiness of the vessel will not be compromised. Stability testing and establishment of stability tables should be accomplished at the time of modification, prior to use, to document the vessel's capabilities and to assure the safety of personnel.

III. TRAILERABLE BOAT OPERATOR TRAINING AND CERTIFICATION

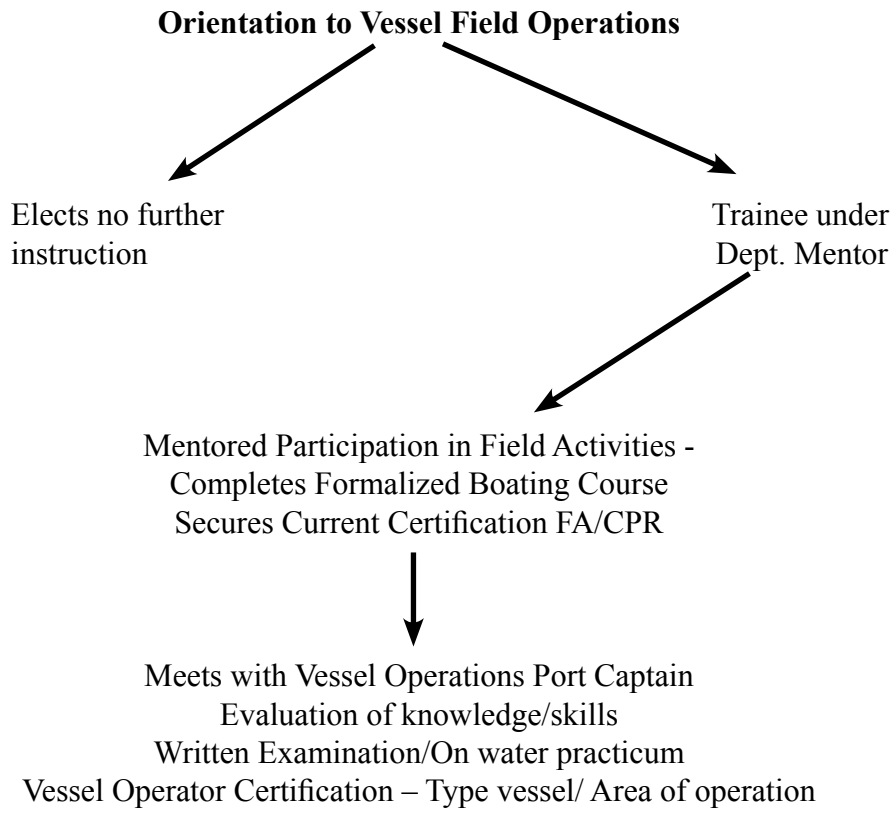
A. Introduction and Overview

One of the mainstays of field research at VIMS is the use of trailerable boats. The VIMS trailerable fleet completes an average of 1,000 field trips each year throughout the Chesapeake Bay region, its tributaries, the Eastern Shore of Virginia and adjoining state waters. Marine science vessel field activities present ever-changing challenges to those who choose to probe, monitor, and collect samples and data from the marine environment. Inherent risks are always present in field activities. Due to the varied nature of marine science field activities, vessel operators require training and experience greater than required by the average recreational boater. Recreational boaters typically do not deploy heavy gear, tow nets or dredges, or modify their vessels in order to accomplish a specific mission or purpose.

The success of the Institute's small boat training program requires that all vessel operators, including tow vehicle operators, be fully trained and competent in these functions. To this end, no faculty member, staff member, or student may operate a VIMS vessel independently without being certified by the Marine Superintendent or his/her designee. Training and certification as an approved operator requires a level of commitment not only from the potential operator but also from other Institute personnel. Thoughtful consideration should be given as to whether an individual will be able to maintain his/her "active" status over an extended period of time before requesting certification. Once certification is granted, an individual must remain current by serving as an 'Operator in Charge' of a vessel a minimum of 6 days per year. Any operator not meeting this criterion will be considered inactive and removed from the Approved Vessel Operator roster. (Appendix D)

The trailerable boat training and certification program for new vessel operators has three components. These include basic orientation, training with a departmental mentor during field activities, and evaluation and certification to serve as an independent vessel operator by the Port Captain.

Diagram – Small Boat Training Program



B. Basic Orientation

Marine Science students and all new employees, volunteers, and visitors who are expected to participate in vessel field activities should be provided a vessel safety orientation prior to participation in such field activity.

Basic Orientation shall include:

1. Personal Safety

   Use of Personal Flotation Devices (PFDs)
   Appropriate apparel for seasonal conditions
   Appropriate footwear
   Identification/location of on board safety equipment
   Person Overboard – roles and actions (including victim)
   Radio/cell phone - distress calls/weather
   Flares/fire extinguisher operation
   Basic aids to navigation/Rules of the road
   Personal health/safety concerns
   Positive representation for VIMS

2. Emergency Vessel Operation – Trailerable Vessels

   Engine Starting Procedure
   Shift control
   Safety lanyard
   Engine Troubleshooting
   Engine gauges
   Telltale, fuel hose connection/replacement
   Vessel Maneuvers
   Anchoring

C. Mentored Vessel Operation Training

1. Designated Mentors

The Marine Superintendent, in consultation with others, will select individuals to serve as the Designated Mentor for departments active in vessel field activities. These individuals will be selected for their experience in vessel field activities, their adherence to Vessel Operations protocols, for having established a reputation for exercising prudent judgment in risk management, and for demonstrating stewardship and interest in educating new field personnel in safe boating practices. The Designated Mentor will determine when an individual should be considered for certification as an independent Vessel Operator in Charge.

PLEASE NOTE: Individuals involved in vessel operator training and also involved in vessel field activities are encouraged to operate the vessel under the supervision of any certified Vessel Operator in Charge to gain experience. However, final endorsement for certification as an independent Vessel Operator in Charge remains with the department's "Designated Mentor."

2. Mentorship

Individuals pursuing small boat operator certification shall be afforded the opportunity to accompany Designated Mentors to gain 'hands on' experience on small boats performing research similar to their departmental or personal research interests. This experience will contribute to the development of boat handling skills as well as familiarity with geographical locations and weather/sea conditions. The Designated Mentor will be afforded the opportunity to observe the trainee's skills, or to evaluate the trainee's potential to develop skills required to enable competent vessel operation. There will be no specific period of time, or number of trips, that a trainee will work under the supervision of a Designated Mentor. The Designated Mentor will observe the trainee's performance for competent boat handling skills, ability to accomplish fieldwork goals, recognition and mitigation of risks inherent in field activities, good judgment, leadership, and acceptance of responsibility for the safety of others.

During mentorship training the trainee will:

a. Accomplish all skills contained in Basic Training Checklist for New Operators (See Appendix E);
b. Complete an approved Boating Safety Course
c. Secure current certification in First Aid and CPR/AED
d. Have attended the Fire Extinguisher and Marine Flare practicum provided by the Institute's Office of Safety and Environmental Programs

D. Evaluation and Certification

When the Designated Mentor feels a trainee is ready to be evaluated for independent operation of trailerable vessels, a referral will be forwarded to the Port Captain.

At the time of the scheduled evaluation the trainee will be required to demonstrate:

1. An understanding of the vessel and its systems.
2. Competent boat handling skills/'on the water' practicum.
3. Inland navigation rules/written exam
4. Recognition of the Aids to Navigation/written exam
5. Understanding of weather and tides/current/wind; and
6. Leadership skill in an emergency scenario

Certification will be vessel type specific; dependent on the trainee's training experience. The vessel types include:

Jon boats 10' to 14'
18 ft. Privateers
18 ft. Parker
21 ft. Privateers
25 ft. Grady White
26 ft. Garveys
Carolina Skiffs
22 ft. *Skimmer*, 25 ft. *Moray*, 23 ft. *Cormorant*

The area of operation will be restricted in relation to the vessel operator's previous boating experience, familiarity with sampling sites, and record of prudent judgment and capabilities. Research needs will be considered when determining areas of operation. Locations of operations may include:

Within sight of VIMS
York River and tributaries
Rivers and near shore line operations within Chesapeake Bay
Chesapeake Bay mainstem
All waters

E. Certification of New Personnel with Previous Boating Experience

Individuals who have sufficient boating experience and who have a clear research need for certification as an operator of Institute trailerable vessels, as determined by the principle investigator and reviewed and affirmed by the appropriate department chair, may be eligible for independent operation of Institute trailerable vessels. These individuals will be required to fulfill the same requirements as noted above for evaluation and certification, including completion of a boating safety course and current certification in First Aid and CPR/AED.

F. Pre-employment Evaluation of Intended Vessel Operators

Principle investigators interviewing potential candidates with vessel operations required as part of their employment responsibilities, are encouraged to request the Port Captain review the candidate's application in relation to boating experience, and to arrange an appointment for an "on the water" practicum while the candidate is still involved in the interview process. The participation of the Port Captain will provide an assessment of the potential employee's vessel operating capabilities, and will provide realistic expectations regarding time and training required for the individual to meet the Institute's requirements for independent vessel operation.

G. Suspension/Recertification/Upgrade

1. Vessel Operators in Charge will have their certification suspended/revoked following an incident involving the unsafe operation of a vessel or operation in a manner that results in property damage or personal injury, pending review by the Marine Superintendent.
2. In the event a certified Vessel Operator in Charge has had his/her motor vehicle driver's license suspended/ revoked, certification to serve as a Vessel Operator in Charge of VIMS vessels will also be suspended/revoked.
3. The Marine Superintendent may suspend/revoke certification for cause.
4. Recertification is required for a Vessel Operator in Charge who does not operate a vessel for at least 6 days during the 12-month period since their last certification.
5. A certified Vessel Operator in Charge may submit a request to receive evaluation to enable operation of additional type vessels requiring enhanced vessel operator capabilities. This additional certification will be provided at the discretion of the Marine Superintendent/Port Captain. Factors to be considered in this decision making process will include, but not be limited to, the individual's proven need for such certification, as well as the individual's level of operating skills and record of safe boating practices.

H. Trailering Certification

Trailering a vessel on a busy highway may be the most dangerous activity an individual performs in order to accomplish marine research and educational goals. When field research sites require transporting a vessel to a remote location, tow operator approval must be obtained from the Port Captain. This authorization is granted after successful completion of an operational practicum.

The majority of Institute personnel seeking certification to tow a vessel have not had previous towing experience. In addition, safety practices and operational routines specific to the use of Institute equipment mandate that all individuals receive an instructional orientation by the Port Captain. The time dedicated to this instruction will be dependent on the individual's capabilities. Due to the inherent dangers associated with trailering, there will be no compromise on the necessity for the individual to demonstrate competency in trailering operations. Performance requirements and evaluation guidelines may be viewed by referring to PRACTICAL EXAMINATION FOR TRAILERING CERTIFICATION (Appendix F).

Trailer certification is separated into two categories: single axle and tandem axle trailers. Separate training and certification is required due to variation in coupling attachments, braking systems, and increased weight carrying capabilities.

Personal vehicles shall not be used to tow Institute owned trailers.

A listing of Current Certified Operators of Tow Vehicles may be found on the Vessels home page:
http://www.vims.edu/admin/vessels

I. Taking Advantage of Training Opportunities

Almost every day, year round, vessel fieldwork activities occur that involve different methods of marine science data collection. Students and others are encouraged to avail themselves of these various techniques. Examples might include a fisheries student who may be interested in observing the technique of collecting a sediment sample using a Smith Macintyre grab or a physical sciences student interested in understanding the technique of setting a small trawl net from an open skiff.

Institute sampling trips are conducted throughout the Chesapeake Bay area. This in itself may provide first-hand observation of the tasks associated with trailering a vessel along with exposure to the varied marine environments. We encourage students and others to secure this opportunity by going to the Vessels home page: **http://www.vims.edu/admin/vessels** and clicking on "All Boats This Month." This will display all scheduled vessel activities. If an activity of interest is found, simply click on the reservation and additional detail will be provided including contact information. One may also select a future month to review by clicking on the month bar located in the upper right hand corner of the calendar and a drop down listing of months will be displayed.

IV. Daily Operations

A. Scheduling a Vessel

1. Gloucester Point Campus

Scheduling of all Institute vessels is initiated by completing the "Vessel Request Forms (Appendix G) found on the Vessels home page: **http://www.vims.edu/admin/vessels**

Confirmation by email of a vessel request will be sent to the requester once the vessel has been scheduled for use.

Vessel users needing immediate access to "present, real-time" vessel availability should contact the Vessel Service Center @ (804) 684-7056 or (804) 684-7777 or visit the Vessel Service Center administrative office.

2. Eastern Shore Laboratory (ESL)

Scheduling vessels for marine science activities on the Eastern Shore should be initiated by contacting the ESL administrative office at (757) 787-5816.

Personnel originating from the Gloucester Point campus and operating from the ESL facilities are required to follow all ESL safety protocols, including closing out float plans at the end of each day and adherence to work time guidelines.

Eastern Shore Lab Work Time Guidelines

# Consecutive Work Days for Vessel Operators & Crew	Max. Daily Hrs.[a,b]	Required Non-underway Days Immediately Following Work Block
1	16	1
2	14	1
3-5	12	1
>5	8	0

[a] Daily Hrs. include: vessel underway/anchored time; vehicle travel time; prep and clean-up time.

[b] If any one day exceeds this limit, then rule defaults to next higher rating.

The Director of the ESL, or his/her designee, has the authority to review all VIMS proposed field operations based at the ESL and to modify or stop any operation where identified risks cannot be mitigated to an acceptable level of responsible and safe operation.

B. Weather Conditions

The use of a vessel is contingent upon reasonable weather conditions for that vessel, the nature of the work, and the experience of the Vessel Operator in Charge. Adverse weather can have negative impacts upon vessel operation. Factors such as fog, lightning, strong tidal currents, and high wind, among others, may interfere with safe boating. Weather conditions can change rapidly in and around the Chesapeake Bay. Even the best forecaster can be surprised at the unpredictability of changing weather patterns. It is imperative that the Vessel Operator in Charge remains alert to sudden weather or wind changes and obtains weather updates on the VHF radio.

When confronted with impending severe weather, priority must be directed toward personnel and vessel safety. Seek safe haven! It is the responsibility of the Vessel Operator in Charge to be prepared with navigational information, such as charts or possession of local knowledge, to allow transit to a safe harbor.

1. Weather Considerations – Trailerable Vessels

This policy sets specific thresholds for adverse weather conditions to limit the potential for negative impacts upon the safety of field activities. Responsibility for monitoring weather conditions prior to departure and during operations always resides with the Vessel Operator in Charge. It is reasonable to expect that weather observations should begin 48 hours prior to the scheduled activity and shall include the following factors: predicted weather, wind speed, and sea conditions. This information may be accessed at numerous resources including:

The National Weather Forecast Website at: **http://www.erh.noaa.gov/er/akq**
Chesapeake Bay Operational Forecast System (CBOFS) at: **http://tidesandcurrents.noaa.gov**
NOAA National Buoy Center web page at: **http://ndbc.noaa.gov/data/Forecasts/FZUS51.KAKQ.html**
and **http://ndbc.noaa.gov/maps/Chesapeake_Bay.shtml** - click on the intended sampling site, and then click on Search and Rescue Data (SAR)

2. Adverse Weather Conditions

When any of the adverse weather conditions listed below exist in the area of planned operations, the trailerable Vessel Operator in Charge shall postpone or cancel operations until favorable conditions prevail.

1. Small craft advisories posted for the waters of intended field operations.
2. Winds greater than 20 knots.
3. Wave heights in excess of 2 feet.
4. Visibility less than 0.25 mile in the area of operations.

For example, trailerable vessels may not depart the VIMS marina when the Waterman's Museum in Yorktown is not visible from Gloucester Point. Factors restricting visibility may include fog, rain, or snow showers.

3. Adverse Weather Sanctions

Expected weather conditions are predicted for broad geographical areas. Small craft warnings may also be issued for wide areas. When a specific field site may not be adversely affected by predicted weather, a Vessel Operator in Charge who believes that planned field activities will be sheltered, or can be altered to enable safe operations, may formally request an Adverse Weather Sanction under the terms of Section IV, B.5 of this policy. When an Adverse Weather Sanction is granted under the authority of the Marine Superintendent, the Vessel Operator in Charge may proceed with the planned field activity so long as the Vessel Operator in Charge believes the mission can be accomplished safely. Once an Adverse Weather Sanction has been granted, it is especially important for a Vessel Operator in Charge to understand the responsibility for the safety of personnel, and the final assumption of risk, predicated on the decision to proceed, remains solely with the Vessel Operator in Charge.

4. Weather Advisory Panel

The Marine Superintendent may determine that, by their performance as Vessel Operators in Charge, certain individuals have consistently demonstrated both the knowledge and sound risk management practice to judge whether it is prudent to proceed with scheduled field activities in the face of adverse weather conditions. The Marine Superintendent may authorize such individuals as his designees to decide whether or not a specific Adverse Weather Sanction is appropriate. These designees shall constitute the Weather Advisory Panel. The Marine Superintendent shall issue written authorizations to such designees on an annual basis. The Marine Superintendent shall accept unconditionally the full responsibility for each Adverse Weather Sanction determined by his formally authorized designees.

The Weather Advisory Panel may assist the Marine Superintendent in judging the potential impacts of adverse weather conditions upon specific field activity. When two members of the Weather Advisory Panel agree that an Adverse Weather Sanction may be granted for a specific field activity, their decision to permit a Vessel Operator in Charge to proceed with that field activity shall carry the full authority of the Marine Superintendent. Contact information for members of the Weather Advisory Panel shall be listed on the Vessels home page:
http://www.vims.edu/admin/vessels

5. Requesting an Adverse Weather Sanction

Vessel Operators in Charge will routinely monitor weather forecasts prior to the day of scheduled field activities. When it appears that adverse weather factors may interfere with field activities, Vessel Operators in Charge are encouraged to initiate contact with the Marine Superintendent or a member of the Weather Advisory Panel on the day prior to the scheduled vessel use. Waiting until the scheduled date to initiate a request for an Adverse Weather Sanction may compromise field plans.

When a Vessel Operator in Charge believes that an Adverse Weather Sanction is appropriate, a formal request shall be required. Brief details pertaining to the site of the fieldwork, vessel type, nature of the sampling, and Vessel Operator in Charge shall be submitted by entering the required information electronically on the Sanction Request form (Appendix H) available on Vessel's home page. **http://www.vims.edu/admin/vessels**

The Vessel Operator in Charge shall next contact either the Marine Superintendent or a member of the Weather Advisory Panel. The Vessel Operator in Charge shall orally provide such additional information as may be required for further consideration. Then, the Vessel Operator in Charge shall stand by while the panel member independently polls other panel members to determine the basis for granting an Adverse Weather Sanction. Each request for an Adverse Weather Sanction shall be judged on a case-by-case basis. Agreement of two members of the Weather Advisory Panel will be required for an Adverse Weather Sanction to be granted for vessel activities departing from Gloucester Point. The Eastern Shore Laboratory's Safety Committee will govern vessel activities departing from Wachapreague.

Once a decision has been rendered it shall be final and shall have the unconditional support of the Marine Superintendent. "Shopping" for an adverse weather sanction will not be condoned. Once a request for a sanction has been denied, the Operator in Charge shall not contact another member of the Weather Advisory Panel to seek the sanction. Once either the Marine Superintendent or two members of the Weather Advisory Panel have rendered a decision, their next responsibility shall be to formally document the decision by closing out the electronic Adverse Weather Sanction form.

Note: Members of the Weather Advisory Panel may not act on their own application to an Adverse Weather Sanction Request; they must contact the Marine Superintendent or another member of the Advisory Panel.

6. Mandatory Procedures for Vessel Operations Conducted Under an Adverse Weather Sanction

The Vessel Operator in Charge who has been granted an Adverse Weather Sanction shall report this authorization on the Daily Float Plan filed prior to departure.

Prior to a vessel departing the Institute under an Adverse Weather Sanction, a response plan must be enacted by the Vessel Service Center. This plan will delegate responsibilities to specific individuals available to monitor the status of the field activity and to render assistance or affect a rescue during subsequent field activities. This individual(s) shall be identified on the Daily Float Plan.

Mandatory communications shall occur as follows:

At minimum, contact between the Vessel Operator in Charge and the Vessel Office shall occur at three specific times during the course of field activities. Initially, when the decision is made by the Vessel Operator in Charge to proceed by water to the location of field activities. Next, a check-in call will be required upon arrival at the sampling site to report whether or not data collection can be safely accomplished, and finally, when the vessel is secured and all personnel are off the water. It shall remain the responsibility of the Vessel Operator in Charge to initiate each of these calls in a timely manner.

C. Liability Release and Waiver of Claims

Institute policy requires that signed Liability Release forms be secured **prior** to vessel travel for visitors or non-state employees. If departing from the Institute's facilities for the day, these signed forms should be left in the Vessels Office. If travel begins from a location remote from VIMS it is imperative the emergency information pertaining to non-VIMS personnel be relayed via telephone to the Vessel's office prior to commencing the vessel voyage. The signed release forms shall be submitted along with the daily vessel log sheet for the day's activities.

D. Float Plans

Float plans are required for all marine research and educational activities conducted under the auspices of the Institute involving the use of vessels, without regard to the ownership of the vessel. This information is imperative in order for the Institute to be aware of the location of Institute personnel in case of an emergency. Three actions will enhance the float plan's overriding purpose, which is to contribute toward the safety of all individuals involved in marine activities. These actions are:

- Submitting baseline information relevant to the day's intended activities.
- Providing updated or modified information to land-based personnel when original information is no longer accurate.
- Closing the float plan upon termination of day's field activities or arrival at the end-of-day destination.

Due to the differences between vessels, various float plans have been developed and are available on the Vessels home page: **http://www.vims.edu/admin/vessels**.(Appendix I)

Float plans for the major research vessels (*R/V Bay Eagle, R/V Pelican, R/V Fish Hawk*) operating in remote locations, maybe submitted online by the vessel's Master. Trailerable vessel float plans are to be completed and submitted manually.

1. Float Plan Format for Trailerable Vessels provide the following information:

A. Vessel Name/Date/Departure Time
B. Location of sampling site(s)
C. Weather considerations
D. Activities included in the day's field effort: trailering, scuba, hookah
E. Names of Personnel on board
F. Expected time of return or arrival at destination at end of day.
G. Name and phone number of the land-based contact for closing float plan if return is after 4:30 p.m.
H. Listing of available electronics for communication/navigation. A VHF radio must be present during all vessel field activities**.** Hand-held VHF radios may be obtained from the Vessels Office prior to departure for field activities.
A cell phone must be present during all vessel field activities. It is recommended communication options be enhanced by project investigators providing "project" cell phones for field personnel. Cell phone numbers must be recorded on the float plan. Vessel Operations provides a limited number of cell phones for projects involved in field operations on an infrequent basis.
I. Reminder to secure signed Liability Release Forms.
J. Pre-departure checklist of vessel equipment, along with checking equipment operation and documenting observed deficiencies.
K. Signatures indicating acceptance of responsibility for the operation of Institute owned vessels and/or trailering operation for the day's field activities. **These signatures may not be delegated.**

2. Submission of the Float Plan

It is the responsibility of each Master and Vessel Operator in Charge to submit a float plan prior to each day's voyage. Vessels departing from Gloucester Point or Wachapreague laboratories shall complete a float plan and leave it in the Vessel's sign-out center prior to departing.

Vessels involved in extended underway field studies, departing from locations other than the Institute's facilities, shall file their float plan each day prior to getting underway. Trailerable vessels originating from Gloucester Point shall call the Vessel Service Center (804) 684-7056. Vessels originating from the Eastern Shore Lab shall call (757) 787-5816. If these offices are not staffed at the time of the morning float plan call, a voice message shall be recorded providing all required information. It is imperative the float plan be submitted each day prior to getting underway. Completion of this procedure will verify to the Vessel Service Center the presence of onboard personnel as well as relay operational information, time of departure and intended route of travel. Vessels departing from

a location remote from the Institute's facilities and who will have guests on board, who are not employed by the Commonwealth of Virginia, must provide identifying information, including name, agency, and emergency contacts (secured on the liability release form), prior to the vessel's underway activity for the day.

3. Updating Float Plan Information

It is not unusual for field activities to encounter circumstances that contribute to delays in maintaining the original intended field schedule. Once it becomes apparent that the estimated time of return will not be possible, the Vessel Service Center or the shore-based responsible person should be contacted. If at all possible, change in time of return should be reported to the Vessel Service Center prior to 4:30 pm in order to document changes to the original float plan.

4. Closing the Float Plan

It is imperative Vessel Operators in Charge, as well as Institute personnel on board non-VIMS vessels, close out their float plan at the end of each day's activities.

The Vessel Operator in Charge shall provide emergency contact numbers to individuals accepting the commitment to remain vigilant until the field crew is reported to be off the water. When two hours have elapsed beyond the estimated time of return**,** individuals who have agreed to serve as "contacts" for the report of safe return of persons involved in field activities should notify the Port Captain or the Marine Superintendent utilizing emergency phone numbers provided previously by the Vessel Operator in Charge. When a field activity originating from the Eastern Shore Lab is overdue, a member of the Eastern Shore Lab Safety Committee should be notified.

Emergency contact numbers are listed on the Vessels home page. **http://www.vims.edu/admin/vessels**

E. Boat Return – End of Voyage Responsibilities

Upon completion of the day's sampling efforts the Vessel Operator in Charge will:

1. Close out float plan.
2. Remove all gear from the boat unless the project will be using the same boat the following day.
3. Wash the boat thoroughly, inside and out, with efforts directed toward removing all remnants of the day's sampling effort, such as sand, mud, fish scales, sea grass, etc. Remove all trash and coil anchor and docking lines.
4. Return the vessel key and communications equipment to the Vessel Office.
5. Complete the vessel usage log (Appendix J). Provide written detail relevant to any event subject to later review, such as negative interactions with individuals, damaging commercial fishing gear, comments on accidents or possible personnel injuries (cuts, strains, sprains).
6. Address each item under Equipment Performance. Comment on items that may have shown evidence of impending operational problems or may affect the engine's future operation, this may include vessel groundings or operation of the engine in soft sediment.
7. In an effort to expedite repairs, report any vessel deficiencies directly to Vessel Service Center personnel.
8. In the event of an incident resulting in damage to a vessel or trailer, the Vessel Operator in Charge shall contact the Port Captain or Marine Superintendent. A "Vessel Service Center Incident Report" (Appendix K), shall be completed by the Vessel Operator in Charge and submitted to the Port Captain or Marine Superintendent.

V. EMERGENCIES AND REQUESTS FOR ASSISTANCE

A. Emergency Communications

Note: A laminated list of emergency call numbers has been placed in waterproof safety equipment containers on board all vessels.

The following situations require immediate notification to the United States Coast Guard (USCG) or Virginia Marine Resources Commission (VMRC):

- A serious injury or a death;
- A vessel is likely to sink; or
- It is necessary to abandon the vessel.

Use the following contact information to reach the USCG or VMRC:

USCG - VHF Channel 16 or call (757) 484-8192 (direct line to the Hampton Roads Search and Rescue Coordinator).

VMRC - VHF Channel 17 (also monitored by USCG) or call (800) 541-4646. This 800 number allows access to VMRC throughout the state, including the Virginia Eastern Shore. VMRC will contact 911 to coordinate emergency medical services if appropriate.

Provide the following information:

- Name of Vessel/Your Position – First!!!!
- Nature of the distress/emergency;
- Number of persons onboard; and
- Description of your vessel.

Once contact has been established, comply with the dispatcher's directions.

The Vessel Operator in Charge may choose to call 911 for medical emergencies. It is essential that the vessel's location be given at the onset of the call to ensure that the closest emergency response dispatcher has been contacted.

Should a VIMS scientific party be asked to render medical assistance to non-VIMS personnel, a call to the Coast Guard or 911 should be placed and then treatment appropriate to an individual's level of first aid training may be provided until emergency medical response personnel arrive on scene.

Experience has shown people are often reluctant to call attention to themselves, even in the face of an emergency. Survival of a marine incident can be optimized when vessel personnel recognize that they may be entering a life-threatening scenario. It is at this point that contact with the USCG is encouraged. Present your concerns before they become a life-threatening event. The Coast Guard will monitor your situation until problems can be resolved, or if necessary, can begin planning for emergency intervention.

Your ability to contact emergency services may be compromised by your location as well as the signal strength of your communication equipment. The USCG recommends the use of VHF Radio communication over cellular phone contacts as other parties within radio range may hear a call for distress and be able to respond. Cellular phone conversation does not provide this public announcement for assistance.

B. Non-emergency Communications

When vessels operating from Gloucester Point require assistance for non-life-threatening injuries or non-life-threatening vessel operational problems secure assistance by contacting the Vessel Service Center Monday through Friday (8am to 4:30 pm) at (804) 684-7056 or (804) 684-7055 or (804) 832-0394 or (757) 898-4364. If these numbers ring busy or go to voice mail – call (804) 684-7600. This is an emergency phone that receives precedence over all incoming calls. If phone contact cannot be established with the Vessels Office, call the VIMS switchboard at (804) 684-7000 for assistance in locating Vessel Service Center personnel.

Non-emergency contacts for assistance for Eastern Shore Operations should be secured by calling (757) 787-5816, (757) 787-5839, or by paging (757) 789-1691.

VIMS Vessel Service Center monitors VHF radio Channel 16 and Channel 07A.
If you desire to contact the Vessel's office by radio the initial contact call should include, "VIMS base, VIMS base, VIMS base, this is Name of Vessel (x3)". Once communication has been established, channel 07A will be used for discussion.

C. Communication Liaison for Boaters in Need of Towing Services

Prudent judgment must be exercised when responding to a request for towing of a non-Institute owned vessel. Except in an extreme emergency situation, VIMS vessel operators are to provide assistance to these requests by providing cell phone or VHF radio calls to others who may provide assistance. The US Coast Guard and SEA TOW monitor Channel 16. If a VIMS vessel operator is uncertain as to how to respond, the Marine Superintendent or Port Captain should be contacted for a determination of further options available to render assistance. Upon the discretion of the Vessel Operator in Charge, a presence may be maintained at the site of the inoperative vessel until assistance arrives.

VI. REPORTING ACCIDENTS

Accidents resulting in damage to property or injury to personnel must be reported to the Marine Superintendent and to the Port Captain as soon as possible. The Vessel Service Center Administration will coordinate an appropriate response. Depending on the seriousness of the incident, the Institute's Dean/Director will be notified and the Institute's Emergency Response Plan will be implemented.

The Port Captain will coordinate necessary reporting requirements to meet state and federal regulations secondary to the location of the incident and the type vessel involved. State and federal authorities must be notified immediately for fatal accidents. Emergency medical assistance may be secured by contacting these same authorities.

USCG - VHF Channel 16, or call (757) 484-8192 (direct line to the Hampton Roads Search and Rescue Coordinator).

Virginia Marine Resources Law Enforcement (VMRC) on VHF Channel 17, or call 800-541-4646. This 800 number allows access to VMRC from locations throughout the state, including Virginia Eastern Shore.

The Institute's Marine Superintendent, Port Captain and the Director, VIMS Safety and Environmental Programs will investigate and document all vessel and trailering incidents resulting in injuries or property damage, and reasonable complaints of unsafe practices. A report will be presented to the Dean/Director and the Director of Operations, Support Services and Special Projects. The Marine Superintendent will determine appropriate disciplinary action specific to the incident.

VII. USE OF NON-VIMS VESSELS

When VIMS personnel are present on a non-VIMS vessel in the interest of VIMS projects, regardless of ownership of the vessel, or consideration of compensation agreements, the safety of Institute personnel must be addressed. To the extent possible, it will be the intent of the Institute to comply with UNOLS policy which mandates that only vessels that are safe and suitable for a project be chartered and that all vessels used in projects meet safety requirements as set forth by the USCG.

The following excerpts provide the basis for the establishment of an Institute protocol directed toward compliance with UNOLS guidelines.

> *"When a UNOLS institution charters a non-UNOLS vessel for marine research that is not operated by that institution… the Principal Investigator, institution contracting office and institution marine office all have a responsibility to ensure that only vessels that are safe and suitable for a project are chartered. Institutions shall establish procedures, utilizing the expertise of marine operations staff, to ensure that all applicable USCG documentation, inspections and licenses to which the vessel is subject are complete and current."* [1]
>
> *"Conduct whatever inquiry may be necessary to establish the competency of captain, crew, or operator to provide for a safe voyage..."* [2]
>
> *"Small boats that will be used by UNOLS institutions will have either a current US Coast Guard safety inspection or be inspected by the Institute's marine staff to ensure that the vessel does meet the required safety regulations."* [3]

In these litigious times, documentation of risk management efforts to ensure the safety of personnel can contribute legal advantage should a lawsuit claiming negligence ensue following an incident causing personal injury or death. In order to ensure that non-Institute owned vessels used for research and educational projects under the auspices of VIMS meet reasonable safety standards, it will be the responsibility of the Principal Investigator or designee to submit

[1] UNOLS Research Vessel Safety Standards, March 2003, Chapter 17, paragraph 1.
[2] UNOLS Research Vessel Safety Standards, March 2003, Chapter 17.1, item 4.
[3] UNOLS Small Research Vessel Compendium, 2004, Chapter 3, Section IV, Safety Requirements.

a "Request for Safety Assessment of Vessel Services to be Provided by Non-VIMS Vessels" (Appendix L), to the Port Captain. This process should take place as early as possible so that any necessary corrections can be made in a timely manner. The owners/operators of the vessels intended for use will be contacted to establish compliance with safety standards deemed appropriate to the location and service of the vessel.

Due to USCG and applicable international standards of inspection required for ships over 300 tons and vessels operated by UNOLS, the USCG or under charter by NSF, these vessels will be exempt from the Institute's Vessel Safety Assessment.

A. Float Plan – Non Institute Owned Vessels

When Institute personnel are involved in marine activities, conducted under the auspices of the Institute, on board non-Institute owned vessels, the submission of an "underway float plan" is requested. In addition to monitoring the safe return of individuals involved in vessel activities, information provided on float plans will aid communication and support efforts in the case of a marine, individual, or family emergency.

Float plans for "NON INSTITUTE OWNED VESSELS" – are available on the Vessels Home page: **http://www.vims.edu/admin/vessels**. This form may be completed and forwarded online. (Appendix M)

REFERENCES

UNOLS Small Research Vessel Compendium, 2004 University-National Oceanographic Laboratory System. UNOLS Office, 8272 Moss Landing Road, Moss Landing, CA 95039
http://www.unols.org/publications/manuals/SBCompendium/index.html

UNOLS Research Vessel Safety Standards, UNOLS Office, 8272 Moss Landing Road, Moss Landing, CA 95039
http://www.unols.org/publications/manuals/saf_stand/contents.htm

Radiation Safety Plan, Office of Safety and Environmental Programs, School of Marine Science, Virginia Institute of Marine Science, College of William & Mary, Gloucester Point, Virginia 23062.
http://www.vims.edu/admin/safety/Radplan.html

Occupational Safety and Health Plan, Office of Safety and Environmental Programs, School of Marine Science, Virginia Institute of Marine Science, College of William & Mary, Gloucester Point, Virginia 23062.
http://www.vims.edu/admin/safety/OSH-PLAN.html

Chemical Hygiene Plan, Office of Safety and Environmental Programs, School of Marine Science, Virginia Institute of Marine Science, Gloucester Point, Virginia 23062
http://www.vims.edu/admin/safety/chemhyg.html

Appendices

APPENDIX A

Drug and Alcohol Procedures for VIMS (Marine Operations):

The College of William and Mary and the Virginia Institute of Marine Science ("College") are firmly committed to ensuring a safe and healthy work environment for all employees, students, customers and the public in general by maintaining a workplace that is free of drug and alcohol abuse.

POLICY

In compliance with the federal Drug-Free Workplace Act, the U.S. Coast Guard ("USCG") regulations, 46 CFR Part 16; 46 CFR Part 4, and the Department of Transportation's (DOT) drug and alcohol testing regulations (49 CFR part 40) the College has established these Drug and Alcohol procedures for individuals serving in safety sensitive positions on certain vessels within the College's research fleet. Under the College's independent authority, the Institute's marine superintendent shall determine which of the Institute's research vessels require that the Operator in Charge must possess appropriate USCG licensure.[41] Drug and alcohol testing is an integral part of our policy and program. Job applicants applying for a position that has been identified as a safety sensitive position are required to comply with these procedures as a condition of employment and by employees as a condition of continued employment. Employees subject to the Commonwealth's Department of Human Resource Management Policy 1.05, Alcohol and Other Drugs are also subject to all conditions of employment with the College.

It is the College's intention to comply fully with the USCG's and DOT's regulations governing drugs and alcohol use and testing. In the event the USCG's or DOT's regulations are amended, the applicable term(s), condition(s), and or requirement(s) of these procedures shall be deemed to have been amended automatically at the time, without the need for redrafting in order to reflect, and be consistent with, the USCG's and DOT's regulations. In such case, the College reserves the right to apply the amended requirements immediately, and without giving prior notice to employees subject to the Regulations, unless such notice is required by the USCG or DOT.

To insure full compliance with USCG and DOT's regulations governing drug and alcohol testing for marine operations, the College will secure consultation and program management assistance from nationally recognized providers of drug and alcohol testing programs.

DEFINITIONS

Crewmember	As defined by 46 CFR 16.105, and includes an individual who is engaged or employed in a safety sensitive position on board a vessel owned in the United States that is required by law or regulation to engage, employ, or be operated by an individual holding a license, certificate of registry, or merchant mariner's document issued under 46 CFR.
Designated Employee Representative	(DER) An employee authorized by the employer to take immediate action(s) to remove employees from safety-sensitive duties, or cause employees to be removed from these covered duties, and to make required decisions in the testing and evaluation processes. The DER also receives test results and other communications for the employer, consistent with the requirements of this part.
Embarked Personnel	Those individuals, including scientific personnel, who are aboard a vessel and are not designated as crewmembers. Embarked personnel are only required to be drug tested in the cases of reasonable cause or post accident.

Marine Casualty or Accident

Any casualty or accident involving any vessel other than public vessels if such casualty or accident occurs upon the navigable waters of the U.S., it's territories or possessions or any casualty or accident wherever such casualty or accident may occur involving any U.S. vessel which is not a public vessel; includes any accidental grounding, or any occurrence involving a vessel which results in damage by or to the vessel, its apparel, gear, or cargo, or injury or loss of life of any person; and includes among other things, collisions, strandings, groundings, founderings, heavy weather damage, fires, explosions, failure of gear and equipment and any other damage which might affect or impair the seaworthiness of the vessel; and includes occurrences of loss of life or injury to any person while diving from a vessel and using underwater breathing apparatus.

Medical Review Officer (MRO)

A licensed physician (medical doctor or doctor of osteopathy), with toxicology and substance abuse expertise who functions independently of the testing laboratory and meets the qualifications established in 49 CFR Part 40, of the US DOT regulations. The MRO is responsible for receiving laboratory results generated by an employer's drug testing program and evaluating medical explanations for certain drug test results.

Operation

Operation means to navigate, steer, direct, manage or sail a vessel, or to control, monitor or maintain the vessel's main or auxiliary equipment or systems. As defined in 46CFR Part 16.105 "operation" includes a long list of activities and include but not limited to: determining the vessel's position, piloting, directing the vessel along a desired trackline, maintaining a lookout; operating deck machinery including winches, windlasses, and lifting equipment; lifesaving equipment and appliances; firefighting systems and equipment; and navigation and communication equipment; and also mooring, anchoring, and line handling; assembling or disassembling of tows.

Safety Sensitive Positions

Positions where an individual engaged or employed on a vessel operated by a USCG licensed operator, is required to perform one or more safety sensitive duties on either a routine or emergency only basis. Any person filling a safety sensitive position is subject to U.S.Coast Guard drug and alcohol testing. Vessel crewmembers are considered to serve in safety sensitive positions.

Scientific Personnel: As defined by 33 CFR 188.10-71, an individual who is aboard a vessel "solely for the purpose of engaging in scientific research, or in instructing or receiving instruction".

Serious Marine Incident

Any marine casualty or accident as defined in 46 CFR 4.03-1 and 46 CFR 4.05-1, which is required to be reported to the Coast Guard which results in any of the following:

- one or more deaths;
- an injury to a crewmember, passenger, or other person which requires professional medical treatment beyond first aid, in the case of a person employed on board a vessel in commercial service, which renders the individual unfit to perform routine vessel duties;
- damage to property in excess of $100,000;
- actual or constructive total loss of any vessel subject to inspection under 46 U.S.C. 3301;

- actual or constructive total loss of any self-propelled vessel, not subject to inspections under 46 U.S.C. 3301, of 100 gross tons or more;
- a discharge of oil of 10,000 gallons or more into navigable waters;
- a discharge of reportable quantity of hazardous substance into navigable waters or the environment, whether or not resulting from a marine accident.

PROHIBITED CONDUCT

Prohibited Conduct Concerning Employee's Use Of Drugs and Alcohol:

- Employees are prohibited from reporting for duty or remaining on duty when using any controlled substances or drugs, except when the use is pursuant to the instructions of a medical doctor who has advised the employee that the substance will not adversely affect the employee's ability to safely perform his/her duties.
- Employees are prohibited from reporting for duty, or remaining on duty, with an alcohol concentration of 0.02 or greater.
- Employees are prohibited from performing safety-sensitive functions within 4 hours after consuming any alcohol. On-call employees who are not at work, but could be called to perform safety-sensitive functions, are subject to this pre-duty prohibition.
- Employees may not "refuse to submit" to any drug or alcohol test required under the USCG's and DOT's drug and alcohol rules
- Employees are prohibited from performing or continuing to perform a safety-sensitive function if they have tested positive for controlled substances or alcohol, or refused to provide a specimen.
- During an employee's workday, an employee is prohibited from engaging in the unlawful or unauthorized manufacture, distribution, dispensation, sale, purchase, solicitation, transfer, possession, use or transport of controlled substances or alcohol. This prohibition does not include the authorized distribution, dispensation, sale, purchase, solicitation, transfer, possession, use or transport of alcoholic beverages in connection with College-sponsored functions or events or service to our customers.
- Employees are prohibited from failing to stay in contact with the College or its medical review officer while awaiting the results of a drug test.

Refusal to Submit To Testing: The following employee conduct will be considered as a refusal to submit to a test:

- Refusing to complete the chain-of-custody form or any other required drug or alcohol testing form(s);
- Refusing to provide a urine sample, or breath or saliva specimen for testing;
- Failing to provide an adequate amount of urine or breath for testing, without a valid medical explanation;
- Failing to promptly notify the College that the employee was involved in a serious marine incident or not being readily available for testing after an incident (except as necessary to obtain assistance or medical care);
- Refusing or failing to report directly to the collection site after being notified of the need to submit to a test;
- Failure to co-operate with the collection process or delaying the collection, testing, or verification process;
- Adulterating or substituting a urine sample or attempting to adulterate or substitute a urine sample; or
- Otherwise engaging in conduct that clearly obstructs the testing process.

Consumption of Food or Food-Products Containing Hemp: The consumption of food and food-products containing hemp (for example, "Seedy Sweeties" and hemp oil) may cause an employee to test positive for marijuana. A test result that is positive as a result of an employee's consumption of food or food-products containing hemp will be reported as a positive test.

Prohibition On Supervisor or Manager Permitting An Employee To Work: No supervisor or manager who has actual knowledge that an employee has engaged in or is engaging in prohibited conduct shall permit the employee to work or continue working under such circumstances. Any employee who has been directed not to work or directed to stop working under such circumstances must immediately comply.

Prohibition Against Working While Using Any Drug Medications Which Can Affect Safety or Performance:

- Except as otherwise provided in this section, the lawful use of any medication (therapeutic drugs) while performing a safety-sensitive function is prohibited to the extent such use may affect the employee's ability to perform his/her job duties safely.

- A employee who will use, or who is using, any medication that contains a controlled substance has an obligation to inquire and determine whether the medication the employee is using, or may use, could affect the employee's ability to perform his/her job duties safely.

- If the employee is or will be using any such drug medication, the employee is required to obtain from the employee's licensed medical practitioner a written statement which provides that the medication will not interfere with the employee's ability to safely and efficiently perform the employee's job duties or provides the work restrictions, if any, which the employee is subject to for the period of time the employee is taking the medication.

- In the event an employee is using or will be using drug medication which will interfere with or adversely affect the employee's ability to do his or her job duties, such information must be reported to the employee's immediate supervisor prior to commencing any safety-sensitive functions, without disclosing the identity of the substance. The employee must also have the medication available for review by the College's MRO in its original container, which must identify the medication dosage and other pertinent information about the medication.

- An employee may continue to work, if the College's MRO and the licensed medical practitioner have determined that the medication will not adversely affect the employee's ability to safely and efficiently perform the employee's safety-sensitive functions, or they have determined that a reasonable accommodation can be made concerning the employee's medication. An employee will not be permitted to perform his or her safety-sensitive functions unless such a determination or reasonable accommodation has been made.

- An employee may consume a legal non-prescription drug provided the drug does not cause the individual to be intoxicated. (33CFR 95.045) If there is any doubt the non-prescription drug may cause intoxication the individual shall contact their immediate supervisor prior to assuming any safety sensitive functions. The employee must also have the medication available for review by the College's MRO in it original container, which identifies the dosage and other pertinent information about the medication.

Required Tests To Address USCG and DOT Regulations

As required by the USCG's and DOT's regulations, the College will conduct drug and alcohol tests under the conditions and circumstances described below.

- Prior to employment or re-employment, promotion, demotion, reallocation, or transfer into a safety sensitive position.
- Random drug and alcohol testing..
- Reasonable cause/suspicion of alcohol or drug use.
- Post Accident or Incident
- Return to Duty
- Follow Up testing

Pre-Employment Drug Testing and Past Test Results Information:

All applicants who have received a conditional offer of employment, and all existing employees whose transfer to a "safety sensitive" position has been conditionally approved, are required to submit to a pre-employment drug test and must receive a negative test result as a condition of employment. Such tests will be conducted prior to the time the applicant is hired or transferred.

In addition to a pre-employment drug test, United States Department of Transportation and USCG's regulations require the College to obtain the following specific information concerning an applicant's past drug and alcohol tests from an applicant's former employer/s during the previous two years:

- Alcohol tests with results of 0.04 or greater;
- Drug tests whose results were verified positive;
- Refusals to be tested (including adulterated or substituted samples);
- Other violations of DOT drug and alcohol testing regulations;
- Information obtained from previous DOT employers of a drug and alcohol rule violation;
- Documentation, if any, of completion of the return-to-duty process following a rule violation.

All such information will be obtained in a confidential manner and the College will maintain a written confidential record with respect to each former employer contacted. If the College learns from the employee's previous employer that the employee had an alcohol test result of 0.04 or greater, a verified positive drug test, or refused to be tested, the employee either will be ineligible to perform a safety sensitive function for the College, or if hired, the employee will be terminated, unless the College obtains evidence that the employee has complied with the referral and rehabilitation requirements set forth in 49 CFR part 40 of the regulations.

Random Drug And Alcohol Testing:

- Each year the College will administer random drug tests. These tests may be conducted at any time, will be unannounced and will be spread reasonably through the year.
- Employees will be selected for testing by using a computer-based random number generator that is matched with the employees' social security numbers, or other comparable identification numbers that will ensure that each employee has an equal chance of being tested each time selections are made.

Each employee who is notified of selection for random drug testing *must proceed to the collection-testing site immediately*. Employees who do not proceed to the test site immediately upon notification of the test shall be considered to have refused to submit to the test. An annual testing rate of 50 percent of marine operations safety sensitive personnel will be performed.

Reasonable Cause Drug and/or Alcohol Testing: Any crewmember or embarked personnel must submit to a reasonable suspicion drug and/or alcohol test whenever a manager or supervisor has reasonable suspicion to believe that the individual has violated the drug or alcohol prohibitions. The determination of a need for reasonable suspicion testing is based on the reasonable, specific observations by at least one trained supervisor.

Examples of behaviors that alone or in combination may create a reasonable suspicion of alcohol or drug use include but are not limited to:

- Unexplained inability to perform normal job functions
- Slurred speech
- Smell of alcohol or drugs on breath
- Unusual lack of physical coordination or loss of equilibrium
- Unexplained inability to think or reason at the employee's normal level, unexplained hyperactivity, depression, or withdrawal
- Bizarre behavior or ideation
- Possession of alcohol or illegal drugs
- Presence of alcohol, alcohol containers, illegal drugs, or drug paraphernalia in an area subject to the employee's control.

Whenever possible, the physical, behavioral, or performance indicators should be based on the observation of the individual by two persons in supervisory positions. The individual's behavior is documented by the supervisor who first observed the behavior and, when possible, by a second supervisor.

An employee who is directed to take a reasonable suspicion drug and/or alcohol test must submit to the test as directed. The supervisor or manager may accompany the employee to the collection/test site, preferably in a state owned vehicle.

Should the crewmember refuse to submit to reasonable cause testing, this refusal should be thoroughly documented and reported to the Coast Guard as appropriate. Any crewmember suspected of being under the influence of a dangerous drug or alcohol should be removed from safety sensitive operations.

Post Accident or Incident Testing: At the time of occurrence of a marine casualty or accident the College shall make a timely, good faith determination as to whether the occurrence currently is, or is likely to become, a serious marine incident. When the College determines that a casualty or incident is, or is likely to become a serious marine incident, crewmembers and embarked personnel directly involved in the incident shall be tested for drugs and alcohol. This determination should be based on the operation being performed at the time of the accident, and what personnel could have or should have had a role in that operation. The identified individuals shall provide urine, blood, saliva, and/or breath specimens as required by the College or law enforcement officers. A law enforcement officer has the authority to further name personnel as being directly involved in the incident and as such, direct them to submit to drug and alcohol testing. The College shall complete Form CG-2692B (Report of Required Chemical Drug and Alcohol Testing Following a Serious Marine Incident).

Post Accident Testing Procedures: Crewmembers and embarked personnel subject to post-accident testing must remain readily available for such testing or else will be deemed to have refused to submit to such testing. However, this "readily available" requirement does not require the delay of necessary medical attention for injured people, or prohibit an individual from leaving the scene of the accident for the period necessary to obtain assistance in responding to the accident or to obtain necessary emergency care. Once emergency concerns have been met Federal law requires: (46CFR Part 4.06-10)

Alcohol Test:

- Must be conducted within 2 hours of the serious marine incident.
- The only acceptable test methods are a breath test, saliva, or blood test. Only qualified medical personnel may collect blood specimens. A urine test for alcohol is not acceptable.
- Crewmembers or embarked personnel directly involved in a serious marine accident are prohibited from consuming alcohol for a period of 8 hours following the accident.

Drug Test:

- Must be conducted as soon as practicable but not more than 32 hours following a serious marine incident.
- Only a DOT 5 – panel test of a mariner's urine specimen is acceptable. A blood test for drugs is not acceptable.

Return to Duty Testing: An employee who tests positive on a Drug or Alcohol test may be terminated by the College, or alternatively, if directed to counseling or rehabilitation, as a condition of continued employment, must submit to unannounced follow-up tests for a minimum of six tests in year one and thereafter as determined by the Substance Abuse Professional

DRUG AND ALCOHOL TESTING PROCEDURES

As required by the United States Department of Transportation and the USCG rules, the College's drug and alcohol testing procedures comply with the Federal Procedures For Transportation Workplace Drug and Alcohol Testing Programs, 49 C.F.R. Part 40, as amended. These procedures ensure the integrity, confidentiality and reliability of the testing processes, safeguard the validity of the test results and ensure that these results are attributed to the correct employee. Further, these procedures minimize the impact upon the privacy and dignity of persons undergoing such tests. The following provides a summary of the federal procedures.

Drug Testing Procedures:

All urine specimens are analyzed for the following drugs:

- Phencyclidine (PCP)
- Amphetamines
- Marijuana
- Cocaine
- Opiates

Chain-of-custody and laboratory: All drug tests conducted shall be performed by laboratories certified by the Department of Health and Human Services ("DHHS"). The College will only use collection sites that adhere to DOT collection and handling procedures as outlined in 49CFR Part 40. The most current Federal Chain of Custody documentation will be required.

Confirmation and review of drug test results: All positive drug test results will be confirmed by gas chromatography and mass spectrometry (GC/MS). All confirmed positive drug test results will be reviewed by a Medical Review Officer (MRO) to determine whether there is any legitimate explanation for the positive test result. This review may include a medical interview, review of the applicant's or employee's medical history, or review of any other relevant biomedical factors and all medical records made available by the tested individuals.

Individuals testing positive will be given the opportunity to discuss with the MRO any legitimate explanation for the positive test result. If, after speaking with the employee, the MRO determines that there is a legitimate medical explanation for the confirmed positive test result, the MRO will report the test

result as "negative" to the Program Administrator or a designated representative. If the MRO determines that there is no legitimate explanation for the confirmed positive test result, the result will be reported as a "verified positive test result" by the MRO.

Right to have split-sample analyzed: All applicants and employees whose primary urine sample is verified positive have the right to request that their split-sample be analyzed in a different DHHS/SAMSHA certified laboratory for the presence of the drug(s) for which a positive result was obtained. The request must be made to the MRO within 72 hours of being notified by the MRO of a verified positive test result. All split specimen tests are performed using "Level of Detection (LOD)" testing procedures as required by the regulations. The purpose of the split specimen test is to determine any presence of the drug without regard to the "cut-off" levels used during routine testing. If the split-sample fails to reconfirm the presence of the drug(s) found in the primary sample, or if the split-sample is unavailable, or inadequate for testing, or untestable, the MRO shall cancel the test and report the cancellation and the reasons for it to the Program Administrator or a designated representative and the tested individual. However, if the split-sample reconfirms the presence of the drug(s) or drug metabolite(s), or adulterant, the MRO will notify the Program Administrator or a designated representative and the tested individual of the test results.

Inability to provide adequate amount of urine sample: Applicants and employees must provide a urine sample of at least 45 milliliters of urine for a drug test. If the tested individual is unable to provide such a quantity of urine, then the tested individual will be urged to drink up to 40 ounces of fluids for a maximum of three (3) hours. If an applicant refuses to co-operate with the collection procedures or refuses to provide a new urine sample, within the three (3) hour time limit, this will constitute a refusal to submit to a test.

Altered or substituted urine samples: Procedures for collecting urine samples allow an individual privacy unless there is a reason to believe that a particular individual has altered or substituted, or attempted to alter or substitute, the sample, as defined in the Federal Procedures For Transportation Workplace Drug Testing Programs, 49 C.F.R. Part 40. In such cases, a second sample shall be obtained as soon as possible under the direct observation of a same gender observer.

Alcohol Testing Procedures:

How test will be performed: Individuals trained in the use of either Saliva Alcohol Screening Devices (ASD) or other non-evidential screening tests ("STT") or evidential breath testing ("EBT") devices will perform alcohol testing. The College shall ensure that persons performing the tests have received appropriate training and are proficient in operation of the testing device utilized. All testing devices must be approved and listed with the National Highway Transportation Safety Administration "Conforming Product List" for Alcohol Testing.

Inability to provide adequate amount of specimen for alcohol testing: If an employee fails to provide or claims that he or she is unable to provide a sufficient amount of breath to permit a valid breath test because of a medical condition, the College will require the employee to be evaluated by a physician selected by the College. If the College selected physician and the program's MRO determine that the employee's alleged medical condition could not preclude the employee from providing an adequate amount of breath, this will constitute a refusal to test and the employee will be terminated.

Return to Duty Procedures

The College is not obligated, and by inclusion of this provision in this procedure does not undertake to any obligation to reinstate or rehire any employee who violates any USCG, DOT or College prohibition or requirement concerning drugs or alcohol. Following a positive drug test, or an alcohol violation an employee must complete the following steps prior to being returned to a safety sensitive position with the College:

- At the employees' expense, must submit to an evaluation by a qualified Substance Abuse Professional (SAP), as defined by 49 CFR Part 40.
- At the employees' expense, attend and complete any and all treatment as required by the SAP.
- At the employees' expense, submit to a return to duty evaluation by the same SAP.
- Provide a negative Return to Duty drug and/or alcohol test as required by the SAP.

Following any return to duty, in addition to the above requirements, the employee must also:

- Comply with any and all "follow-up" care as required by the SAP.

- Submit to any, and all, "follow-up" testing as required by the SAP. Follow-up testing shall be prescribed by the SAP and shall be unannounced tests to the employee. At the time the employee is notified of the request for a "follow-up" test, the employee must immediately proceed to the collection site and provide the specimen/s required. Any delay in proceeding directly to the collection site shall be deemed a "refusal to test."

CONSEQUENCES FOR POLICY VIOLATIONS

The consequences discussed below apply to applicants, employees, or embarked personnel:

Automatic Removal from Safety-Sensitive Functions: USCG and DOT regulations require employees who violate the Commonwealth's policy on Alcohol and Other Drugs in any way to be immediately removed from their safety-sensitive functions. Such employees are prohibited from performing, or being permitted to perform, a safety-sensitive function.

Refusal to Submit: Employees who refuse to submit to testing and who meet the definition of crewmember will be reported to the U.S. Coast Guard in accordance with 46CFR part 16.

In the case of a Serious Marine Incident, embarked personnel employed by the College, who refuse to submit to testing will be documented in the vessel's daily log and reported, in writing, to the U.S. Coast Guard, the Institute's Dean/Director, and the College's Human Resource Department. In addition, the individual will not be allowed back aboard the vessel on subsequent cruises, unless cleared by the College.

In the case of a Serious Marine Incident, embarked personnel not employed by the College, who refuse to submit to testing, will be documented in the vessel's daily log and will be reported to the U.S. Coast Guard, the Institute's Dean/Director, and the individual's employer will also be notified in writing. In addition, the individual will not be allowed back aboard the vessel on subsequent cruises, unless cleared by the College. Applicants who refuse to submit to a test will be ineligible for employment with the College.

Positive Test Results:

Applicants: All applicants who receive a verified confirmed positive drug test result will be ineligible for employment with the College.

Employees:

- **Temporary suspension:** Any employee who is required to submit to a reasonable suspicion drug or alcohol test will be temporarily suspended.
- **Positive alcohol test results of 0.02 or greater but less than 0.04:** An employee who receives an alcohol test result of 0.02 or greater, but less than 0.04, **for the first time**, will be placed on LWOP for a minimum of 24 hours. A second result in this range will result in immediate suspension from work and possible further discipline.

- **Confirmed positive drug test and alcohol test results of 0.04 or greater:** If an employee receives a confirmed positive drug test or an alcohol test result of 0.04 or greater, **for the first time**, the employee will be charged with a Group III violation of the State's Standards of conduct, which alone may warrant termination. Any crewmember holding a USCG license or document and who tests positive for dangerous drugs will be reported to the USCG Officer in Charge, Marine Inspections, Portsmouth, VA.

Embarked Personnel:

- Embarked personnel who receive a positive drug test result will not be allowed aboard the College's research vessels for future cruises, unless cleared by the Institute's Dean/Director and/or College.

Other Policy Violations:
Employees who commit violations other than consequences addressed under Refusal to Submit for Testing, or conditions stipulated under Positive Test Results, will be charged with a Group III violation of the State's Standards of Conduct, which alone may warrant termination. Applicants who violate these procedures will be ineligible for employment with the College.

Potential Forfeiture of Workers' Compensation and/or Unemployment Compensation Benefits:
Violations of USCG's or DOT regulations and/or the requirements of these procedures constitute gross and willful misconduct. In addition to the discipline and other consequences imposed by USCG and the College, such gross and willful misconduct may also result in the denial of unemployment compensation under the applicable state law. In addition, employees who are injured as a result of a violation of USCG's or DOT regulations and/or the College's safety rules (including but not limited to the conduct prohibited under these procedures) may also forfeit workers' compensation benefits under the applicable state law.

NOTIFICATION OF TEST RESULTS

Applicants will be notified of the results of a pre-employment drug test, if the applicant requests his/her test results within 60 days of being notified of the disposition of the employment application. Employees will be advised of drug test results that are verified positive and the drug or drug(s) for which a positive result was verified. Employees will be notified of the results of their alcohol tests immediately after the administration of the screening test and, if necessary, the confirmatory test.

EXPENSES AND COMPENSATION FOR TESTS

The College will pay for drug and alcohol tests and related expenses as follows**:**

- The College will pay for all drug and alcohol tests required to be taken by employees or applicants including confirmation tests.

- Any requested confirmation test by other than the College's contracted testing laboratory must be by a certified laboratory approved by the MRO and paid for by the employee or applicant requesting it. The College will reimburse the individual if the original testing result is unable to be confirmed.

- All time spent by employees providing a specimen, including travel time to and from the collection site, will be considered as on-duty time. The employee will receive his or her regular compensation.

RECORDKEEPING, ACCESS TO RECORDS AND CONFIDENTIALITY OF TEST RESULTS

The College will maintain records related to its drug and alcohol testing program as required by the USCG and DOT regulations. These records will be maintained in a secure location with controlled access and will not be released to any person except as required by law or expressly authorized by the employee.

The laboratory may disclose drug test results only to the MRO. The MRO, STT and BAT may disclose test results only to the individual tested, designated College representatives, a treatment program, federal or state authorities, or a court of law or administrative tribunal to the extent required by law.

SELF-IDENTIFICATION OF SUBSTANCE ABUSE PROBLEM

Consistent with and subject to the College's policies concerning medical and personal leaves and vacations, an employee who voluntarily self-identifies himself or herself as having a drug or alcohol problem and requests assistance for such a problem will be referred to an employee assistance professional for an evaluation and, if recommended, an appropriate counseling, treatment or rehabilitation program. The cost of the counseling, treatment or rehabilitation is the employee's responsibility.

This request must be made before the employee is directed or otherwise required to submit to a drug or alcohol test.

CONTACT FOR QUESTIONS REGARDING POLICY

College contact: Questions regarding these procedures as enforced by the College:

Director of Human Resources - (757) 221-3115

Attachment I

SUMMARY OF THE
COMMONWEALTH OF VIRGINIA'S POLICY ON ALCOHOL AND OTHER DRUGS

The Commonwealth of Virginia's Policy 1.05 on Alcohol and Other Drugs states that the following acts by employees are prohibited:

I. the unlawful or unauthorized manufacture, distribution, dispensation, possession, or use of alcohol and other drugs on the workplace;

II. the impairment on the workplace from the use of alcohol or other drugs, (except the use of drugs for legitimate medical purposes);

III. action which results in the criminal conviction for:
a violation of any criminal drug law, based upon conduct occurring either on or off the workplace, or a violation of any alcoholic beverage control law, or law which governs driving while intoxicated, based upon conduct occurring on the workplace;

IV. the failure to report to their supervisors that they have been convicted of any offense, as defined in III above, within five calendar days of the conviction.

Included under this policy are all employees in Executive Branch agencies, including the Governor's Office, Office of the Lieutenant Governor, and the Office of the Attorney General.

The workplace consists of any state owned or leased property or any site where state employees are performing official duties.

Any employee who commits any prohibited act under this policy shall be subject to the full range of disciplinary actions, including discharge, and may by required to participate satisfactorily in an appropriate rehabilitation program.

A copy of the entire Commonwealth of Virginia's Policy on Alcohol and Other Drugs may be obtained from your agency human resource office.

.....

CERTIFICATE OF RECEIPT

Your signature below indicates your receipt of this policy summary of Policy 1.05, Alcohol and Other Drugs. Your signature is intended only to acknowledge receipt, it does not imply agreement or disagreement with the policy itself. If you refuse to sign this certificate of receipt, your supervisor will be asked to initial this form indicating that a copy has been given to you.

Employee's Name _____

Signature _____ Date _____

APPENDIX B

Virginia Institute of Marine Science
Drug and Alcohol Policy For Marine Operations
Embarked Personnel Acknowledgement Form

Welcome Aboard.

The Virginia Institute of Marine Science and the College of William & Mary are firmly committed to ensuring a safe and healthy work environment for all employees, students, customers and the public by maintaining a workplace that is free of drug and alcohol abuse.

We would like to advise you, a user of our vessels, of the policies and regulations that govern our Vessel Operations, as well as to inform you as to how these guidelines may affect you.

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In compliance with the Federal Drug-Free Workplace Act, the Commonwealth of Virginia's Policy on Alcohol and other Drugs, (Policy No. 1.05), and the College of William & Mary's Drug and Alcohol Procedures for VIMS Marine Operations, the following prohibitions affect all personnel, including visitors, and will be strictly enforced:

1. Alcoholic beverages, including beer and wine, are prohibited on board at all times.

2. Possession or use of illegal drugs (narcotics, marijuana, stimulants or other similar controlled substances) is prohibited on board at all times.

In the event of a "Serious Marine Incident," Federal regulations require VIMS/College of William & Mary to request individuals directly involved in the incident submit to alcohol and drug testing. Failure to submit to this test, if requested, will require VIMS to report the individuals name and address to the U.S. Coast Guard and to the home institution of the individual.

For your information, a brief overview of guidelines pertaining to a "Serious Marine Incident" is on the other side of this page. In addition, per your request, we will provide a copy of the drug and alcohol policies governing VIMS Vessel Operations for your review.

We are committed to do everything possible to assure the safety of all embarked personnel and the vessel.

Please indicate you have read this document and will comply with the same by signing below.

(Print Name)	(Signature)	(Date)

If other than VIMS (Employer)	(Address)	(Office Phone)

(Person to be notified in case of emergency)	(Relationship)	(Phone)

Thank you for your cooperation in this matter.

Code of Federal Regulation guidelines re: Serious Marine Incident (46 CFR 4.03 – 4.06)

1. At the occurrence of a marine casualty, the marine employer "shall make a timely, good faith determination as to whether the occurrence currently is or is likely to become, a serious marine incident."

"Serious Marine Incident" (SMI) includes, though not all inclusive:

- One or more deaths;
- Any injury to a crewmember, passenger, or other person which requires professional medical treatment beyond first aid;
- Damage to property, as defined in 46 CFR 4.05-1 (f) in excess of $100,000

2. Once the marine employer makes that determination, the marine employer "shall take all practicable steps to have each individual engaged or employed on board the vessel who is directly involved in the incident chemically tested for evidence of drug and alcohol use.

Term "individual directly involved in a SMI –" is an individual whose order, action or failure to act is determined to be, or cannot be ruled out as, a causative factor in the events leading to or causing a serious marine incident."

3. Testing requirements - Alcohol tests are to be conducted not later than 2 hours (unless there are casualty directly related safety concerns) and drug test specimens collected not later than 32 hours after a serious marine incident.

APPENDIX C

Liability Release and Waiver of Claims For On-the-Water Activities

Boating and other activities on and near the water are dangerous and involve hazards and risks such as

- Risks related to the water, such as drowning, injury from marine life such as jellyfish stings and shark bites, or injury from plant life or man-made objects in the waters
- Risks arising from unaccustomed physical activity or the use of boating equipment
- Risks arising from being in the dynamic environment of a vessel on the water
- Risks related to the weather and other forces of nature

I am aware that my participation in the activity described below will expose me to these and other risks and dangers and could result in injury, illness, damage to property, or even my death. I also understand that any injury or damages that may result could arise from the actions, inactions, or negligence of others, such as employees of the Virginia Institute of Marine Science (VIMS) of the College of William & Mary (the College).

In consideration of being allowed to participate in this activity, I hereby and forever release the Commonwealth of Virginia, VIMS, the College, its Board of Visitors, and their respective employees, agents, and students from all liability and responsibility for any claims, losses, or demands relating to injury, death, or damages to myself or my property which may result from or arise in the course of such activity, including claims, losses, or demands caused or alleged to be caused in whole or in part by the negligence of VIMS or any of the above entities, except to the extent that such injury, death, or damages is caused solely by any of their gross negligence or willful misconduct.

I also agree to indemnify and hold harmless VIMS, the Commonwealth of Virginia, the College, its Board of Visitors, and any of their respective employees, agents, or students for any injury or damages to any other person caused by my negligence or intentional acts or inactions during this activity.

Despite the risks and dangers and having read and understood this form and the releases, waivers, and indemnifications contained herein, I voluntarily agree to participate in the following activity: (insert description of the activity/voyage)

_____

on _____, a vessel owned and/or operated by VIMS.

By my signature below, I agree to the releases, waivers, and indemnifications contained in this form. If any person participating in this activity or boarding this vessel is a minor, a parent or legal guardian must sign on that person's behalf.

Signature: _____Printed Name: _____ Date: _____

Emergency Contact Information:

Agency Contact: _____ Telephone: _____

Family Contact: _____ Relationship: _____ Telephone: _____

APPENDIX D

Overview of VIMS Vessel Training Policy

1. No faculty member, staff scientist or student may operate a VIMS vessel without being certified by the Marine Superintendent or his designee.

2. Any faculty, staff member or student who will be responsible for fieldwork may be eligible for certification in small boat handling. Certification will be available only to those individuals with a clear research need as determined by the principle investigator and reviewed and affirmed by the appropriate department chair. Recommendations shall be submitted directly to the Marine Superintendent on the forms designed for this purpose. (Appendix D) Such forms are available from the Marine Superintendent.

3. Prospective candidates should be screened and trained by qualified operators, designated by the Marine Superintendent, during the course of field activities, prior to submitting a certification request. It is essential that an individual's potential to develop those skills required to enable competent vessel operation be determined before raising any expectations for a candidate.

4. Participation in formal boating safety instruction, such as the introductory courses offered by the USCG Auxiliary, shall be a prerequisite for candidates recommended for certification as boat operators. However, it may not be assumed that, upon completion of a classroom program, a person is entitled to certification as a small boat operator.

5. The names of qualified small boat operators shall be posted in the Vessel Office. This listing shall indicate which vessels each individual is qualified to operate. It shall remain within the purview of the Marine Superintendent to authorize or deny any mission, based solely on the degree of confidence that he/she may have with regard to the proposed operator of a vessel.

6. Annual certification will be automatic for those individuals who have operated a vessel for six days during the twelve-month period since the previous certification. Any operator not meeting this criterion will be considered inactive. Any request for recertification will then require review and approval by the department chair. The Marine Superintendent may waive the retraining requirement when, by virtue of his knowledge of the skill level of the applicant, he deems no retraining is needed.

7. Operation of a vessel in an unsafe manner or a manner that results in significant damage to real property or injury to people shall be grounds for immediate suspension of certification pending review of the circumstances of the accident and provision of additional training if appropriate.

*Approved 1994 by VIMS Departmental Heads

VIMS VESSEL SERVICE CENTER

Request to Marine Superintendent
For Boat Operator Status

From: _____email_____ phone ext. _____
(Department Chair)

Re: _____email_____ phone ext. _____
(Candidate's Name)

The following justification is submitted for including this candidate on the listing of qualified operators for the Institute's small vessels:

_____

_____

_____

_____

_____

The operating experience of this candidate in VIMS vessels is summarized as follows: _____

_____

_____

_____

_____

The candidate is a: _____ student, _____ lab/field tech., _____Other (specify)

The vessel groups this candidate will need to operate are as follows:

_____Jon boats (10- 14 ft.) _____Sm. Privateers (18 ft.) _____Lg. Privateers (21 ft.)
_____Carolina Skiffs (21 ft.)_____Garveys (26 ft.) _____Other, Specify

How many days per year do you estimate this person will be required to "operate" a vessel in order to meet fieldwork goals? _____.

Will the candidate need to trailer boats? _____Yes _____ No

_____
Department Chair (Date)

Additional comments: _____

_____

VIRGINIA INSTITUTE OF MARINE SCIENCE - VESSEL OPERATIONS

Request For Vessel Operator Approval

Vessel Operator Experience Questionnaire

Name _____ Email_____ Phone ext. _____

Dept._____ Supervisor/P.I. _____

ANTICIPATED LOCATION OF FIELD WORK:

Bay_____ Rivers_____ Marshes_____ Creeks_____

ANTICIPATED NUMBER OF DAYS IN THE FIELD/YEAR _____

What type of vessel (including gear requirements - e.g. winch, fathometer) do you feel will be necessary to accomplish your fieldwork goals?

We need your input in gathering information which will allow us to assess your underway boating activity and training experience.. This information will familiarize us with your capabilities and alert us as to how we may support you in accomplishing your fieldwork goals. Please complete the following:

1. Have you participated in marine science projects where a trailerable vessel was used to collect samples? _____ If yes, please describe including:

Type vessel, including type propulsion:

Scientific Field Gear Used:

Your role:

Type Waters: Inland: Bay_____ (identify)_____
Rivers ____ (identify)_____
Lakes ____ (identify) _____
Coastal ____(define location) _____
_____

2. How many days did you operate a vessel during the past year? _____

3. How would you describe your previous vessel operating experience in relation to the type vessel you feel will be required during field operations at VIMS?

considerable moderate limited

4. Have you participated in any formal boating education courses? _____
If yes, please list –

Please submit copy of course completion document(s) along with this questionnaire.

5. Are you familiar with:

Reading a nautical chart?_____

Rules of the Road?_____

Aids to Navigation?_____

Legal Requirements re: vessel equipment?_____

How to use a VHF Radio?_____

How to use a Cellular phone?_____

How to use a GPS?_____

6. In reviewing your field experiences onboard small vessels (trailerable) - what has been the most precarious situation you have encountered?

Etiology?

Outcome?

Learning experience?

7. When approaching an inlet, a dock, a person overboard, another vessel or anchored gear - what factors do you consider in an attempt to maintain control of your vessel and prevent injury to your personnel, equipment, or facilities?

8. If you have been operating a vessel (recreational) outside of your marine science fieldwork, please give us information regarding this activity including type vessel, frequency, and waters navigated.

9. Have you ever been involved in a marine related accident that resulted in injury to personnel or damages to equipment? _____ If yes, please describe.

10. Our expectation is that a candidate for certification as an Operator in Charge will possess self confidence and leadership skills to enable accepting full responsibility for the various elements involved in a day of marine science field work – including first and foremost the safety of onboard personnel, safe operation of the vessel, navigational information, monitoring of the weather, as well as making decisions relevant to the overall success of the field activities.

How do you feel you will measure up to this expectation? Explain your confidence or concerns in meeting this requirement.

Please provide the names and phone numbers of two experienced vessel operators who are familiar with your boat handling skills:

1._____
(Name) (Dept/Agency) (Phone)

2. _____
(Name) (Dept/Agency) (Phone)

APPENDIX E

Virginia Institute of Marine Science – Vessel Operations

Basic Training Checklist For New Vessel Operators

NAME_____**DEPT**_____**DATE**_____

_____Review of Completed Vessel Operator Experience Questionnaire
_____Completion and Review of Boating Safety Questionnaire

Review of Pre underway Administrative Responsibilities
- _____Completion of Float Plan
- _____Completion of Vessel Logsheet
- _____Liability Release Form
- _____Signout and Operation of Communication and Navigation Eqmt.

Review of Vessel and Engine
- _____Location Safety Equipment
- _____Flare, First Aid, Tools
- _____Electrical System
  - _____Battery Switch
  - _____Navigation Lights
  - _____Horn Button
  - _____Fathometer
  - _____12 VDC Outlet
- _____Engine Nomenclature
  - _____Tilt Control Locations
  - _____Telltale Location/Cleanout Procedure
  - _____Shift Control Positions/Throttle Advance
- _____Engine Starting Procedures
  - _____Engine Position
  - _____Fuel Primer Bulb
  - _____Safety Lanyard
  - _____Water @Telltale
  - _____Engine Warm up RPM <1000 rpm
  - _____Check Tachometer Warning Indicators
    - _____Arrow over steady green – ALL OK
    - _____Arrow over flashing yellow – CHECK OIL LEVEL
    - _____Arrow over flashing red – SHUT DOWN ENGINE, Contact Port Engineer, call 7056,7055,7059,7000

Vessel Underway Maneuvers: "Hands on Maneuvers"

_____Accelerate/Decelerate/Stopping
_____Turns-Gradual/Tight-Speed/Control & Comfort
_____Backing-Observation of Stern Movement

Man Overboard Exercise

_____Discussion of Operator's Responsibility re: Control of Scene and Personnel
_____Approach to victim while compensating for wind/current conditions
_____Retrieving the victim

Docking Maneuvers

_____Discussion-making the most of wind/current forces
_____Approaching and departing from dock-varied wind/current conditions
_____Vessel Handling Exercise in Confined Space

Anchoring

_____Demonstration and discussion of wind/current/scope required

Aids to Navigation, Navigation Rules /State Laws

_____Demonstrates ability to navigate vessel using nautical chart
_____Able to give explanation of lateral and non-lateral Aids to Navigation
_____Vessel operation complies with Rules of the Road and State Laws.

Discussion of Vessel Operator Responsibilities

_____Importance of notification to onboard personnel re: intent
_____Responsible for all decisions relating safety of personnel and vessel
_____Weather Check
_____Tidal Concerns
_____Possession of navigation aides
_____Use of PFD's
_____Completion of Administrative Paperwork
_____Importance of Timely Notification of gear Shortcomings to Vessel Personnel
_____Return of vessel back to original state of cleanliness
_____Professional Role as representative of VIMS

Approved to Operate a Vessel Under the supervision of: _____
Type Vessel _____

Approved for independent operation of:
Garvey_____ Lg. Priv._____ Carolina Skiff_____ Sm. Priv._____
Jon Boat _____. Other (Specify)_____

On the following waters:

VIMS Waterfront_____ York River _____
(From ----------To)
Other water including: _____

By _____ on _____
Vessel Operations Date

APPENDIX F

College of William & Mary
Virginia Institute of Marine Science

Practical Examination For Trailering Certification

Name_____

Date of Road Examination _____

Type Trailer_____

Travel Route_____

Preunderway Activities:

Examines boat on trailer

_____Engine in up position with lift lever engaged
_____Boat strap on
_____Tire inflation observed
_____Verifies bow safety chain and cable/winch wire are engaged
_____Verifies charged battery with engine lift
_____Field gear properly secured and distributed

Tow Vehicle – Trailer Hookup

_____Efficiently aligns vehicle receiver with trailer
_____Properly connects couple to ball
_____Stows away jack
_____Attaches safety chains in X pattern
_____Connects light cables/verifies working status
_____Verifies couple connection prior to road trip
_____Adjusts tow vehicle mirrors

Boat Ramp Activities

_____Enters ramp area with caution
_____Demonstrates courtesy by placement of tow unit
_____Checks ramp for slope, depth, drop off, and surface
_____Allows time for cool down of bearing protectors
_____Removes vessel tie down strap
_____Disconnects trailer lights

Prepares Vessel for Launch

_____Verifies primary/secondary tie downs are attached
_____Disconnects light plug from tow vehicle
_____Removes tie down strap
_____Verifies need for boat plug
_____Prepares lines for launch
_____Stows gear on board vessel from tow vehicle
_____Verifies presence of boat key
_____Engine lift lever disengaged
_____Launch completed in competent manner
_____Back trailer efficiently down boat ramp
_____Demonstrates good judgment in placing trailer in water
_____Directs removal of primary/secondary attachments when vessel is in optimum position for no risk launch.
_____Correctly directs activities of field crew in removal of vessel from trailer
_____Demonstrates accountability in launching of vessel

Vessel Retrieval

_____Backs tow vehicle to appropriate water depth for ramp conditions
_____Verifies winch cable/safety tie down is attached to vessel prior to pull out from ramp.
_____Reconnects electrical plug, verifies operation of lights
_____Puts on tie down strap
_____Secures all gear in vessel
_____Verifies engine is in secured up position
_____Checks mirrors, tests brakes, recheck coupler
_____Correctly directed field crew in the retrieval of vessel

General Highway Practicum

_____Checks traffic before pulling out/allows safe distance
_____Slows down prior to full stop
_____Compensates for inside tracking on corners
_____Maintains speed within posted limits
_____Demonstrates safe passing practices
    _____Checks traffic prior to pulling into passing lane
    _____Utilizes turn signals during passing/turning activities
    _____Pulls out safely with good speed and purpose
    _____Allows safe distance before returning to lane
    _____Maintains safe distance from vehicle in front tow unit
    _____Slows down to allow controlled turns
    _____Uses mirrors to completes periodic eye scan of boat/trailer unit underway on highway
    _____Observes traffic behind/alongside tow unit
    _____Demonstrates anticipatory planning when approaching intersections, congested areas or unfamiliar roads.

Operator rated as:

_____ Demonstrates capability to pull single axle trailer

_____ Demonstrates capability to pull tandem axle trailer

_____ Need remedial instruction/practice in the following areas:

_____ Employee's overall performance does not meet expectations of certifier to warrant authorization to assume responsibility of a tow vehicle operator. The following areas of concern resulting in this non endorsement include:

Today's road practicum and resultant certification has been discussed with me.
I am:

_____in agreement with my certification

_____not in agreement with the examiner's evaluation for the following reason(s):

_____ _____

Employee Port Captain (date)

As the operator of VIMS tow vehicle, I accept full responsibility for all actions and decisions concerning the use of the Institute's equipment during trailering operations.

_____

Employee (date)

APPENDIX G

Trailerable Vessel Request

NOTE!!!! Submission of this form is not confirmation of your request.
We will contact you verbally or by email when your request has been scheduled.
Fields marked in red are required

* Boat Calendars *	Garveys	Large Privateers	Small Privateers	Jon Boats	Others
All boats this month All boats today	Heron Osprey	Egret Gannet Plover (prev. Pelican) Teal	Sandpiper Seagull Widgeon	Grebe Mallard Marsh Hen Phalarope Rail Ruff Willet	Bittern Jaeger Loon Moray Petrel Scoter Shearwater Skimmer Skua Cormorant 4-HP Motor

Vessel request submitted by:

Phone extension:

Email Address:

Date(s) of vessel use:

Backup date(s) of vessel use:

Type of vessel (choose one):

- ☐ No boat needed
- ☐ Garvey
- ☐ Skimmer
- ☐ Small Privateer
- ☐ Large Privateer
- ☐ Small Jonboat
- ☐ Large Jonboat
- ☐ Carolina Skiff
- ☐ Other

Vessel should be (choose one):

- ☐ N/A
- ☐ on trailer
- ☐ in water

Departure time:

Anticipated return date / time:

Number of personnel:

Name of operator in charge:

SPECIFIC location of field work:

Field activity goals will be to (describe):

Vessel Service Center field support equipment.
Check as many items as you want:

- ☐ **Davit winch**
- ☐ **Hand winch**
- ☐ **Handheld GPS**
- ☐ **Handheld VHF**
- ☐ **Cellular phone**
- ☐ **2hp motor**
- ☐ **4hp motor**
- ☐ **6hp motor**

Describe intended use in field activity goals.
List other requested equipment.

INDEX NUMBER:

Submit this Request | Reset the Form

OFFICE OF VESSEL OPERATIONS

Request For Large Research Vessel Services

*** Boat Calendars ***

R/V Bay Eagle
Elis Olsson
R/V Fish Hawk
Pelican

The Vessel Operations Center's ability to provide accurate cost estimates and voyage scheduling is enhanced when sampling requirements are presented in a clear and all-inclusive format. For this reason, we ask that you consider your expectations in a detailed sense. The following questions are intended to prompt responses concerning the fine points of your request.

Submitted by:

Email:

Principle Investigator:

Department:

The intent of this vessel request is to:

- ☐ secure a cost estimate for a research proposal
- ☐ secure vessel costs for planned fieldwork
- ☐ schedule a vessel with **these account numbers** to be charged:
  - rental
  - personnel
  - fuel

Project title and brief outline of scientific goals/objectives

PROPOSED SCHEDULE OF VESSEL ACTIVITY

How many sampling trips will your project require?

Not counting load, transit or offload days, what do you feel will be the minimum number of vessel days required **per trip** for your project?

Optimum inclusive dates for field work:

Acceptable alternative dates:

Define the location of your sampling site(s).

DETAILS RE: PROPOSED FIELD COLLECTIONS

Is there a need to consider conditions such as: lunar phase, tide, current, or a weather event? If yes, please explain.

- ☐ Yes
- ☐ No

☐ Yes
☐ No

Will your work involve scientific diving?

What scientific gear will need to be placed on the vessel in order to secure your project goals? Please list:

☐ Yes
☐ No

Will you require special assistance (use of crane or fork lift), to load and offload your scientific gear?

☐ Yes
☐ No

Will you be using any hazardous or radioactive materials?
If yes, give details.

How many persons will be in your scientific party?

☐ Yes
☐ No

Will your work require specific vessel capabilities such as positioning verification, special anchoring techniques to provide stable data collection, or other conditions?
If yes, please explain.

How many stations will you be sampling?

How much time will you require on each site to complete sampling?

Provide a brief outline of your on station collection procedure:

ON BOARD EQUIPMENT REQUIREMENTS

☐ Yes
☐ No

Will any specific data logging requirements be a part of your cruise plan?

☐ vessel track
☐ sea water temp.
☐ wind speed and direction

Other

Yes
No

Will you require a hydraulic or electrical powered winch during your field collections?
If yes, what scientific gear will it deploy?

Yes
No

Will you require a hand winch?
If yes, what gear do you plan to deploy with it?

Yes
No

Will you have special electrical power requirements to support your scientific equipment? If yes, please list equipment adjacent to power requirement:

220 AC -

110 AC -

24 VDC -

12VDC -

Yes
No

Are there other vessel provisions/capabilities required which you feel necessary to accomplish your goals? If yes, please list.

Are you requesting a specific research vessel?

- R/V Bay Eagle
- R/V Fish Hawk
- Elis Olsson
- Pelican
- n/a

Submit Reset

APPENDIX H

Adverse Weather Sanction Request

Date: _____ Time of Request: _____

Requested by: _____ Vessel Operator:_____

Phone # _____ Email:_____

Date of field work: _____ Proposed Departure time:_____

Sampling Location (Be specific): _____

Type Vessel: _____

Proposed field activity: _____

Predicted: Wind Speed_____ Direction_____ Wave Heights_____

Tidal Times: High _____ Low _____

Adverse Weather Concerns: _____

_____

Basis for Sanction Request: _____

_____

Reviewed by: _____

Phone #_____ email_____

Discussion Points:

1. _____

_____

2. _____

_____

3. _____

_____

Decision/Outcome: Granted _____ Denied _____

Panel Members contacted:

1. _____ 2. _____

APPENDIX I
Vessel Float Plans

Trailerable Vessel Float Plan

Date of Cruise_____**Vessel**_____**Departure Time**_____

Banner Index # to be charged:_____

Location Of Sampling Site(s). Include well-known reference points. _____

_____

Today's forecast for sampling site: Winds:_____ Seas:_____

Weather factors: Required Adverse Weather Sanction?
(Circle one) NO YES If Yes- Approved by_____ and _____

If yes, indicate Vessel Staff assigned to respond - _____, _____

If trailering, what is the location of the ramp where you will be launching? _____

Will you pull out at this same ramp? _____ If not, where? _____

Will today's trip involve: SCUBA HOOKAH ? (Circle one) NO

Names of all personnel on board:

_____ _____ _____

_____ _____ _____

Estimated Time of Arrival at dock at end of day_____ ***Remember to update your Float Plan if return time changes.***

If your return will be after 4:30 p.m., whom will you contact to close your float plan?
Name: _____ phone number_____

Communications: Radio #_____ Cell phone #s_____ _____ GPS # _____

Visitors and non-state employees will need to sign a liability release prior to departure and filed along with this plan.

PREDEPARTURE CHECKLISTS

VESSEL

_____Ignition Key
_____Adequate Number of PFDs
_____Adequate Fuel/Oil (1/3 rule)
_____Fire Extinguisher (2 on Garveys)
_____Tool/Flare/First Aid Supplies
_____Anchor/Adequate Line
_____Horn Works
_____Oar, Boat Hook, Drain Plugs
_____Portable Fuel Tanks Secured
_____Boat Clean/Lines Coiled
_____Nightwork – Check navigation lights

TRAILER

_____Boat Strap secured
_____Trailer jack stowed
_____Safety chains crossed
_____Verify coupler attachment
_____Brake Cable attached (Tandem trailer)
_____Primary/Secondary tiedowns secured
_____Lights/Turn signals/Brakes
_____Field gear secured
_____Deck winch positioned/secured
_____Confirm battery power/
Engine Up and Locked

_____ _____
Vessel Operator-In-Charge Tow Vehicle Operator

Specify observed deficiencies_____

APPENDIX J

College of William & Mary
Virginia Institute of Marine Science

RESEARCH VESSEL USAGE LOG

Vessel Name & No. _____ **Date** _____

Area of Operation _____

Purpose of Trip _____

Time	Events / Comments

– EQUIPMENT PERFORMANCE –

Please Check ☑ Each Category to Confirm Performance Was Satisfactory

☐ Propulsion ☐ Trailer ☐ Electrical ☐ Controls ☐ Safety Gear ☐ Deck Gear

☐ Cell Phone ☐ VHF ☐ GPS

Please Specify Exceptions: _____

_____

Total Time Underway _____ Hrs. _____ Mins.

Total Time Moored _____ Hrs. _____ Mins.

Total Time of Use _____ Hrs. _____ Mins.

Vessel Rental Rate _____ Per _____

Trailer Rental Rate _____ Per _____

Account Nos.	Rental Chg.	Fuel Used	Fuel Rate	Fuel Chg.	Other Chgs.*	**Total Chgs.**

*Please Specify: _____ **Total Charges** _____

Personnel on Board

Scientific Crew Members

Vessel Service Center Crew

_____ _____

If Vessel Was Trailered - Tow Vehicle Operator **Vessel Operator**

APPENDIX K

College of William & Mary
Virginia Institute of Marine Science
Vessel Service Center

Incident Report

Vessel Incident Trailering Incident

Date of Incident: _____
Operator in charge: _____
Field personnel present: _____
_____

Describe the incident as it occurred:

Diagram the incident per above description:

Explain what factors may have contributed to the incident happening.

Does this incident warrant interventive action to prevent reoccurrence?
If so, please describe.

APPENDIX L

Use of Non-VIMS Vessel and Form

COLLEGE OF WILLIAM AND MARY
SCHOOL OF MARINE SCIENCE
VIRGINIA INSTITUTE OF MARINE SCIENCE

Office of the Dean and Director
(804) 684-7103
(804) 684-7009 (Fax)

DATE: June 29, 2005
TO: VIMS Community
FROM: John T. Wells, Dean and Director
SUBJECT: Use of Non-VIMS Vessels for Research

VIMS' Vessel Operations has for many years been an exceptional resource for research. Not only has the department supported a wide variety of projects, it has consistently protected our researchers by ensuring that vessels used in field activities are safe and that all personnel have been trained in vessel handling and safety procedures. As our programs have grown in scope and variety, researchers increasingly find it necessary to use non-VIMS vessels to accomplish research goals. The Institute's mandate to maintain a safe workplace does not end if a researcher uses a non-VIMS vessel; it is the responsibility of the VIMS Vessel Operations to conduct a risk assessment of any vessel used by the Institute's faculty, staff, and students to verify that the vessel meets safety standards consistent with guidelines established by the USCG and the UNOLS fleet.

Effective immediately researchers planning to use a non-VIMS vessel will need to complete and submit the attached form to Vessels, which will be available soon at: http://www.vims.edu/admin/vessels/. Upon receipt of the form, Vessels personnel will:

- In the local area and continental US **confirm** that the vessel identified for use by VIMS personnel has a current USCG safety **certification** including appropriate documentation, inspection, and licenses. Further, when practicable, VIMS will conduct inquiries to ensure the vessel captain and crew have the skill and expertise to safely complete the project's at-sea requirements.
- For projects conducted **overseas**, to the maximum extent possible, will perform an **assessment** of the vessel to be used. Since certifications and licenses may differ from those in the US, Vessels personnel will use their best judgment in their evaluations. Whenever possible scientific personnel will provide photographs or other information to assist in the assessment.
- **Train** VIMS researchers to perform on-site reviews of vessels selected. The training should include a checklist of safety features that should be available on the vessel as well as training for emergency evacuations and procedures. VIMS researchers will be responsible for completing the safety checklist prior to embarking.

If you plan to use a non-VIMS vessel as part of current or proposed research and education activities, is your responsibility to assist vessel personnel as they conduct a risk assessment of the proposed field activities and implement a plan to ensure the safety of participating faculty, staff, and students. Further, this procedure will confirm that the Institute is in compliance with the UNOLS mandate that "only vessels that are safe and suitable for a project be chartered" and that all non-VIMS vessels meet the standards of safety that we have come to expect.

Safety of personnel on vessels is the responsibility of the entire VIMS community. By working together we can protect researchers and the Institute.

Request for Safety Assessment of Vessel Services to be provided by non-VIMS Vessels

Date Submitted _____

Principal Investigator_____ Phone Ext._____ Email_____

Project Title _____

Funding Source _____

Contract/Grant Administrator _____

Proposed Field Dates _____

Brief narrative of scope of work _____

_____

Geographical Location of Field Work _____

Vessel Name_____ Vessel Owner/Operator _____

Contact Information (telephone and/or email address) _____

Please provide the names of VIMS personnel participating in this voyage.

_____

_____

_____

In order to ensure that non-Institute owned vessels used for research and educational projects under the auspices of VIMS/SMS meet reasonable safety standards, the owners/operators of the vessels you intend to use will be contacted to establish compliance. Should you have any questions, contact Sharon Miller, ext. 7055, or email smiller@vims.edu.

APPENDIX M

Virginia Institute of Marine Science

Float Plan – Non Institute Owned Vessels

DATE(S) OF VOYAGE _____

NAMES/VIMS PERSONNEL

_____ _____

_____ _____

_____ _____

NON-VIMS VESSEL NAME_____

VESSEL OWNER/OPERATOR _____

VESSEL CONTACT NUMBER (Cell Phone/Satellite Phone) _____

Vessel Departing From _____ Departure Time ¬¬¬¬¬_____

Vessel Returning To _____ Anticipated Return Time _____

Sampling Site(s) – Purpose of trip:

Shore based contact:

_____ _____
Name Telephone #

*Remember to close out your float plan!!!!!!!!!!

*Update your float plan with your shore-based contact if delay or modifications are made to the original float plan.

*For “day” trips, if two hours have elapsed beyond the anticipated time of return, request your land-based contact to notify the Port Captain or Marine Superintendent.

Provide the following Emergency Contact numbers to your shore-based contact:

Sharon Miller (Port Captain)
Day - (804) 684-7055; Cell - (804) 832-0394; Evening - (804) 725-0369
George Pongonis (Marine Superintendent) Cell - (757) 898-4364