

Training of Personnel in Rescue of Persons in Water

API RECOMMENDED PRACTICE T-7
SECOND EDITION, OCTOBER 1995



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Exploration and Production Department

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FOREWORD

This Recommended Practice (RP) was developed under the jurisdiction of the American Petroleum Institute's (API's) former Committee on Offshore Safety and Anti-Pollution Training and Motivation (OSAPTM), and its parent, API Production Department Executive Committee on Training and Development. It has been prepared with the overall advisory guidance of the API, the Offshore Operators Committee (OOC), the Western States Petroleum Association (WSPA), the International Association of Drilling Contractors (IADC), the Helicopter Safety Advisory Conference (HSAC), and the Offshore Marine Service Association (OMSA).

Criteria presented in this Recommended Practice should be used as a guide for rescue training programs by companies engaged in offshore operations. Such programs shall be consistent with applicable authorities and regulations. Training should include techniques for assistance in the rescue of persons in the water at the job site or during transportation to/from the work location, and be consistent with safe practice.

This publication includes usage of the verbs **shall** and **should**, whichever is the more applicable to the function. **Both shall and should** are positive statements and should be treated as such. For the purpose of this publication the following definitions apply:

Shall: Indicates that the function has universal applicability to the specific activity.

Should: Indicates that: (1) the function may have an alternative practice that **is** equivalent and could be applied; or (2) the practice may not be practical or necessary under certain conditions; or (3) the practice may not be applicable to a specific facility or configuration.

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Suggested revisions are invited and should be submitted to the director of the Exploration and Production Department, American Petroleum Institute, 1220 L Street, N.W., Washington, D.C. 20005.

Training of Personnel in Rescue of Persons in Water

0 Introduction

On occasion, personnel may fall overboard or due to emergencies may be forced to abandon their unit and enter the sea. Various devices, procedures, and rescue knowledge may be used to increase their chances for rescue and survival. Many factors impact the ability to survive and be rescued. A rescue of any type may be broken down into the following elements or phases.

0.1 NOTIFICATION

Persons with the means to perform the rescue must be made aware that persons are in distress. This includes "passing the word" to the person in charge when seeing a man overboard, or transmitting a mayday on a radio when a unit is in distress. Vessels in the area, the United States Coast Guard (USCG), nearby facilities, and helicopter personnel should be alerted if assistance is needed. It is always appropriate to contact the USCG in a distress situation. Even if the nearest USCG facility is not nearby, it may have an aircraft or vessel transiting the area.

0.2 COMMUNICATIONS

One of the most important elements in every successful rescue effort is communication between participants:

- a. Between the person in charge of an offshore unit and aircraft or vessel resources.
- b. Between units involved in any search for survivors.
- c. Between the occupants of a survival craft, and rescue vessel or aircraft.

0.3 LOCATE

Locating persons in distress may be difficult. Emergency Positioning Indicator Radio Beacon (EPIRB), reflective tape, international orange lifesaving devices, whistles, ring buoys, smoke canisters, flares, and water lights, as well as other devices, can assist in this effort.

0.4 SURVIVAL

Making the best use of the materials at hand to prevent drowning and minimize the possible effects of exposure is important. Persons in the water or aboard survival devices may be assisted by providing them with additional equip-

ment and materials that will aid in readily locating them and augment their ability to survive until they are rescued.

0.5 RECOVERY

Perhaps the most difficult phase of a rescue is the recovery of persons from the water or survival device. A quick response is necessary and training in the use of available rescue equipment is important. The longer a person is in the water, the less likely he or she is to survive. In the event of a rescue emergency, personnel must have a good knowledge of devices available as well as the ability to properly utilize them in order to keep response time to a minimum.

0.6 POST-RECOVERY FIRST AID

Certain first-aid actions performed within minutes of recovery may greatly enhance an individual's chance of survival. The effects of exposure to the elements should always be considered when recovering a person from the water.

1 Scope

This Recommended Practice applies to personnel who work offshore and represents an industry guide for training personnel in techniques for rescuing persons from the water and from survival devices in the water. It broadly identifies rescue devices, describes their operations, and presents recommendations for training personnel in their use as either a rescuer or a person being rescued. These training recommendations are designed to develop personnel rescue proficiency while minimizing an individual's exposure to injury or loss of life.

The training may be either hands-on or classroom based. Some suggested approaches are included. The Recommended Practice encourages the employer, when deciding the conditions under which training and drills are to be carried out, to fully consider all safety aspects of the training. Training should be as broad as is practical. It should emphasize those devices likely to be available to the employee at his or her assigned location.

These guidelines are general and may or may not be sufficient for all circumstances or operations. The employer should not limit or reduce the company's present program as a result of the publication of these guidelines.

2 References

The following recommended practices are cited herein:

API

T-1 *Orientation Programs for Personnel Going Offshore for the First Time*

T-4 *Training of Offshore Personnel in Nonoperating Emergencies*

3 Records

Employers shall maintain a record at a central location documenting the training each employee has received in accordance with the provisions of this Recommended Practice. Documentation of the training should be made available to those employees whose work location varies.

4 General Information

Employers should ensure their employees have received instructions in accordance with API Recommended Practice T-1 : *Orientation Programs for Personnel Going Offshore for the First Time*; and with API T-4: *Training of Offshore Personnel in Nonoperating Emergencies*.

5 Rescue Devices-Description and Use

5.1 PLATFORM AND MODU

Devices on fixed platforms, Mobile Offshore Drilling Units (MODUs) and vessels that may be used for rescue of persons in the water include but are not limited to:

5.1.1 Ring Life Buoy

Also referred to as throw rings or life rings, these devices generally are constructed of unicellular plastic in the shape of a ring with a grab line. On offshore facilities, they are intended primarily to be thrown to a man overboard to provide buoyancy and stability to aid in keeping persons afloat in the water. The throw must be prompt and accurate for this rescue technique to be successful, particularly if there are unfavorable sea currents or wind conditions.

5.1.2 Safety Litter

This type of device is intended primarily to be used to move and transport an injured person. It can also be used as a rescue device if lowered to the water by means of a crane or hoist. Specifically designed sling systems are available for use with safety litters. Safety litters equipped with a buoyant ring are particularly effective for rescue of injured persons from water.

5.1.3 Personnel Basket

This device normally is used for moving personnel to and from vessels using the platform crane. However, it can be useful as a rescue device if positioned on the water where a man overboard could swim to it, or to lower someone to assist a man overboard.

5.1.4 Type I Personal Flotation Device (PFD)

These devices, designed to be worn like a jacket, support the wearer in the water in an upright or slightly backward position and provide support to the head so that the face of an unconscious or exhausted person is held above the water. They are intended to be worn during an emergency evacuation situation or when working over water. However, they could be a useful rescue device if thrown to someone overboard in a case where a ring life buoy is not available, or if worn by someone going into the water to rescue a man overboard. They are equipped with reflective tape and lights to aid in locating personnel in the water.

5.1.5 Type V Personal Flotation Device (Work Vest)

Work vests are items of safety apparel worn by persons when working near or over the water, except that they shall not be used in lieu of the approved Type I PFD's that are to be worn during drills and emergencies. Work vests could be thrown to a man overboard if ring life buoys are not readily available.

5.1.6 Exposure/Immersion Suits

These suits are normally provided during operations north of 32 degrees north latitude in the Atlantic Ocean and 35 degrees north latitude in the Pacific Ocean. Suits are available with and without buoyancy and are intended primarily as protection from exposure to the elements. Suits with buoyancy could be used by both rescuers and persons being rescued.

5.1.7 Life Floats

Life floats are buoyant devices that require no preparation for use. They are designed to support a specified number of persons in the water. They are designed with a continuous body in the shape of either an ellipse or a rectangle with a circular, elliptical, or rectangular body cross section. They typically are equipped with a platform designed so that persons supported inside are partially immersed, and generally are equipped with paddles.

5.1.8 Inflatable Rafts

Two types of canister-packed, inflatable raft installations are used offshore: davit-launched inflatables and hydrostatically released inflatables. The launching procedure is the major difference; otherwise they are manned and operated

the same. There may be instances when an inflatable raft can be used as a rescue device, as in man overboard situations where launching rescue equipment or calling rescue sources would not be fast enough. However, it must be kept in mind that an inflatable raft has limited maneuverability and must be recovered.

5.2 HELICOPTERS

The helicopter has the capability to travel at high speed to an emergency site and assist people in the water by delivering flotation devices or by rescuing them directly from the water. Some helicopter rescue devices and techniques, and limiting factors that may influence their selection, are listed below :

5.2.1 Hoist (USCG)

5.2.1.1 An electrically or hydraulically operated hoist is available on USCG helicopters. It lowers a hoisting device (sling, harness, seat, or basket) from a hovering helicopter to lift personnel from the surface into the helicopter.

5.2.1.2 The pilot hovers the helicopter in a position that allows the hoist operator to lower the hoisting device and raise the person being rescued to the helicopter and then inside. A rescuer aboard the helicopter may enter the water to assist incapacitated personnel.

5.2.1.3 A person being rescued may be required to put on or enter the hoisting device unassisted while the helicopter hovers overhead. Uninjured personnel in the water should assist any incapacitated personnel into the hoisting device.

5.2.1.4 It is always appropriate to contact the USCG; however, depending on the distance of the nearest available USCG helicopter from the rescue site, response time may be a limiting factor when considering this technique. Hoisting has been accomplished in winds exceeding 50 knots and seas exceeding 30 feet.

5.2.2 Helicopter External Delivery of Life-Float

5.2.2.1 A life-float can be picked up at an offshore platform, carried beneath the helicopter on its external cargo hook, and released near personnel in the water to provide them with extra flotation. Once the life-float has been released, a helicopter that is not equipped to pick up survivors may be used for observation.

5.2.2.2 Minimum crew would consist of one pilot. Platform personnel may be called upon to assist with the initial hookup of the life-float.

5.2.2.3 This is considered a short-distance response since the maximum cruise speed with this external load will be 50-60 miles per hour.

5.2.2.4 Wind and weather conditions are limiting factors when considering this technique.

5.2.3 Inflatable Life Raft, Life Ring, or PFD Drop

5.2.3.1 An inflatable life raft, inflatable life ring, solid life ring, or PFD can be transported internally by the helicopter and dropped to persons in the water. The life raft is dropped from a hover by a person who holds a tether line attached to the inflation lanyard. When the raft lands in the water, the tether line is jerked to inflate the raft. The line is then released or can be used to tow the raft within reach of the survivors prior to release. The inflatable life ring is a softball-sized package that inflates on water contact and would normally be thrown without a tether line to survivors. Some versions incorporate a hoisting ring. The standard **non-inflatable** life ring can be thrown to survivors either with or without a tether line.

5.2.3.2 Minimum crew consists of one pilot and a person who will deploy the life raft or life ring. A coordination briefing is required to minimize the risk of injury to the rescuer or the person being rescued, as well as to ensure that any ropes stay clear of helicopter rotors and landing gear.

5.2.3.3 Persons being rescued need only board the raft or don the life ring.

5.2.3.4 The helicopter range and cruise speed are not affected and a larger radius of response is feasible using this type of rescue equipment.

5.2.3.5 Wind and weather conditions and door configuration are limiting factors when considering this technique. Since the door must be open to drop the raft, hinged **doors** must be removed or held open against the wind in a hover.

5.2.4 Miscellaneous

5.2.4.1 Always consider whether the survivor may be safer where he or she is before deciding to attempt a rescue with improvised equipment.

5.2.4.2 Various items found on the platform can be suspended from the helicopter to provide a means for lifting a person from the water. The platform personnel basket or other nets not incorporating flotation should be considered for use as a helicopter rescue device only as a last resort because of the potential of personnel being entangled in the device.

5.2.4.3 Any rescue in which a person is suspended beneath the helicopter, and not hoisted into it, must necessarily be conducted at the lowest altitude, slowest speed, and shortest distance possible.

5.3 RESCUING VESSELS

A master or individual in charge of a vessel must render assistance to any individual found at sea in danger of being lost, so far as the master or individual in charge can do so without serious danger to the vessel or other individuals on board. Any vessel in the vicinity of an offshore work site

must respond to any call for assistance in an emergency. The vessel will proceed to the site to assist in the recovery of a man overboard from the water. The ability of a vessel to provide any real assistance in an emergency will vary significantly according to the vessel size, type, equipment, crew size, cargo, and weather conditions-any or all of which may be limiting factors in considering vessel rescue techniques.

The alerted vessel standing by the distressed unit may be called upon to remove persons from the water. Ancillary devices may be required to assist persons from the water in order to improve the efficiency of the operation, to augment small crew size, or because of the freeboard of the vessel. Examples of the devices that may be rigged alongside to assist boarding include boarding ladders, life-floats, skiffs, rafts, rescue platform, fish davits with knotted lines, or a safety litter with flotation collars. Boarding also may be assisted by means of a portable rescue platform, scramble nets, or other devices lowered over the side.

5.4 SURVIVAL CRAFT

Survival craft, for purposes of this Recommended Practice, include motorized survival capsules and motorized covered and uncovered lifeboats. While these craft normally are used as escape vessels, they also can be utilized to rescue persons in the water.

5.5 RESCUE BOATS

Rescue boats are designed to provide quick response in the rescue and retrieval of personnel who are in the water. A rescue boat generally is launched from a larger vessel and is manned by members of the crew. A rescue boat may be of rigid or inflatable construction, or a combination of both. The low profile and rounded shape of the sides of an inflatable or rigid inflatable rescue boat make it relatively easy for a person to board or to be assisted aboard. The boat may be equipped with an outboard engine or an inboard engine, or not equipped with an engine at all. In the latter case, the boat may be rowed to reach the person or persons, or it may be towed behind or rigged alongside the larger vessel and used as a boarding aid.

6 Training Guidelines

6.1 GENERAL TRAINING INFORMATION

Training in rescue of personnel in the water should encompass general considerations as well as training specific to rescue devices for the rescuer and the person being rescued. The primary objective is for every affected employee to be familiar with the emergency rescue plans, location of equipment to be used in a rescue, and the best techniques for

its use. The need to respond or deploy resources promptly should be stressed. Sections 6.2 through 6.7 provide guidelines for initial and ongoing training on respective equipment. Initial training should be conducted as soon as is practical. Ongoing training should be conducted on a periodic basis. Additional considerations that should be included in rescue training include:

6.1 .1 Communications

6.1.1.1 All necessary sources of aid should be alerted as soon as possible to a rescue emergency to lessen response time. This includes passing the word in the event of a man overboard.

6.1.1.2 Sources of aid (i.e., vessels and aircraft) en route should be advised of the type of emergency and conditions at the scene with emphasis on those items that affect survival time. Such information should include:

- a. Length of time and number of persons in the water.
- b. Environmental conditions and forecasts including sea and air.
- c. Crude oil, chemicals, fuel, or debris in water.
- d. Conditions on the unit that may limit evacuation methodology.

6.1.1.3 Coordination of available aid should be established and continuous until recovery is complete.

6.1.2 Decision Process

6.1.2.1 Persons coordinating the rescue may need to evaluate the capability of available aid to determine the best rescue procedure.

6.1.2.2 The order of rescue may need to be prioritized according to the physical condition of a person being rescued or other conditions.

6.1.2.3 Persons in the water should be removed safely from the water as soon as possible. Judgment capability of a person being rescued may be affected by:

- a. Injuries.
- b. Exposure to the elements.
- c. Extreme personal discomfort.
- d. Lack of training.
- e. Hysteria.

6.1.2.4 Immediate transfer from a lifeboat, inflatable life raft, or other shelter of relative safety to the rescue vessel may not be in the best interest of afflicted personnel. The transfer may present more risk than standing by until conditions improve.

Are the occupants of the craft in any immediate danger? Where there is more than one person to be rescued, the decision to rescue must be considered according to need and risk:

- a. Is there a "person in charge" of the craft?
- b. Does he/she appear to know what they are doing?
- c. Is there panic on board the craft?
- d. Can the craft continue to navigate in the existing or forecasted weather conditions?
- e. How many persons are injured?
- f. What is the seriousness of their injuries?
- g. How long until daylight/darkness?
- h. Can the craft be taken safely in tow under the existing weather conditions?

6.2 PLATFORM AND MODU

6.2.1 Initial Training

The objective should be to integrate basic rescue training with other safety and orientation training. The training should include but not be limited to the following:

- a. The location of equipment that could be used in the event of a man overboard situation and a description of its function and operation.
- b. How employees should respond if they see a man overboard in the water, and what employees should expect and do if they were to fall overboard.
- c. Ways to assist in one's own rescue.

6.2.2 Ongoing Training

Periodic training shall occur as a normal part of safety programs or emergency drills. The objective should be to refresh personnel competence in rescue techniques and equipment, and to improve and maintain readiness to respond promptly and effectively in the event of a man overboard situation. Also, the training should be conducted in a manner that would provide opportunity for personnel to resolve any concerns or questions on the proper techniques. Training should cover the following topics:

- a. The location of devices that could be used for rescue and their operation.
- b. The best techniques for using rescue devices.
- c. Inspection and maintenance of rescue equipment.
- d. The effects of wind and sea currents on rescue operations.
- e. Procedures to use if someone is overboard and what to expect if one falls overboard.
- f. Ways to assist in one's own rescue.
- g. Throwing ring life buoys or other flotation devices to a person overboard.
- h. Connecting a rope and lifesaving harness to a person in preparation for entering the water to accomplish a rescue.
- i. The use of a crane with a personnel basket or a safety litter for rescue operations.
- j. How to climb a rope ladder.
- k. First aid treatment for persons who have been rescued-shock, hypothermia, etc.

6.2.3 Training Location and Drills

Training should be conducted on the fixed platform or MODU and could include lectures during safety meetings, films, slide presentations, or video tapes. Approximately once per year, if feasible, hands-on rescue drills should be conducted on the **fixed** platform or MODU under the direction of the person in charge. These drills should include but not be limited to:

- a. Throwing ring life buoys or other flotation devices using a floating object as a target.
- b. Climbing rope ladders if the facility is so equipped.
- c. Using a crane to lower a personnel basket and/or safety litter near an object in the water to simulate the rescue of a person overboard.
- d. Deploying a life-float and maneuvering it to the vicinity of the floating target.
- e. Using a survival craft or lifeboat as a rescue vessel to recover a floating object in a simulated rescue.
- f. Directing a field utility vessel or standby vessel to simulate a rescue of a floating object.

6.3 HELICOPTERS

6.3.1 Initial Training

Persons being rescued should have knowledge of helicopter rescue methods available, including how to put on and/or board those devices used in helicopter rescue. Procedures for using those devices should be demonstrated to and/or practiced by personnel working in the offshore environment. It may not be feasible to use a helicopter as part of a large-scale indoctrination or training program. To train personnel in these rescue methods, various media or audio-visual aids may be used.

6.3.2 Ongoing Training

The following may be used to further train offshore workers in helicopter rescue operations:

- a. Audio-visual aids.
- b. Demonstration of and hands-on familiarization with helicopter rescue devices.
- c. Observation of rescue exercises conducted by the Coast Guard or commercial helicopter operators.
- d. Classroom or field exercises in preparing injured personnel for rescue.
- e. Pool exercises simulating helicopter rescue methods.

6.3.3 Helicopter Crew Training

Pilots should be thoroughly briefed on deployment of the various types of rescue equipment available, but in most cases repetitious training is not considered necessary. Complex equipment or procedures may require not only initial training but also recurrent training to maintain proficiency.

Training methods and techniques for helicopter-assisted rescues will be subject to Federal Aviation Administration (FAA) rules and approval. Training programs for flight crews shall be established by the helicopter operator, approved by the FAA, and incorporated into the helicopter operator's training manuals. The "Person in Charge" will be the helicopter pilot.

6.4 RESCUING VESSELS

6.4.1 Persons Being Rescued

Personnel working in the offshore environment should receive initial and ongoing training on vessel rescue methods available, including how to put on and/or board those devices used in vessel rescue, similar to the training described in 6.3.1 and 6.3.2 for helicopter rescue.

6.4.2 Vessel Crew Training

The training vessel crew is subject to maritime law and Coast Guard regulation; however, crewmen of all vessels should be instructed through required reading or otherwise informed in the following:

- a. Donning a personal flotation device.
- b. Boarding survival/rescue craft from the water.
- c. Effects of immersion in water and hypothermia.
- d. Effects of sun, wind, and sea upon ability to survive.
- e. Recovering and caring for survivors.
- f. Location and use of lifesaving equipment on board the vessel.

Crewmen should also receive practical instruction during **onboard** drills or elsewhere in the following:

- a. Assisting persons from the water into survival/rescue craft.
- b. Operation of survival/rescue craft equipment.
- c. Streaming a sea anchor.

6.4.3 Approaching Survival Craft and Attaching Towline

The alerted vessel may also be called upon to stand by or to rig a tether or towline to a life raft, lifeboat, or survival craft. It may be necessary to stand by until the weather abates so that the occupants **can** safely **evacuate** or be towed to a harbor of safe refuge. To avoid tipping the craft, the towline should be connected near the water line. Cautionary note: The towline probably will be attached by the occupants of the craft being towed. The craft should be towed at a SLOW speed.

Instructions on safe approach should include:

- a. Proper approach by the vessel for rescue of a survival capsule, life raft, lifeboat, or persons in the water.
- b. Effect of wind and sea conditions on the rescue vessel.
- c. Effect of wind and sea conditions on the survival craft or persons in the water.

- d. Methods for transporting the towline to the survival craft.
- e. Towline attachment points for survival craft.
- f. Proper towing of survival craft.

6.5 INFLATABLE RAFTS

6.51 Initial Training-Location and Method of Deployment

Training should be given on the specific types, operation, and maintenance of inflatables likely to be found at the location where the new employee will be working, as well as the types of equipment likely to be found on the boats and helicopters that service the area. **This** training should be part of a new employee's orientation.

In their training, the employees should be given instruction on how the inflatable raft may be used in rescuing people from the water. They should also be given instruction on how to deploy an inflatable raft from:

- a. Platforms.
- b. MODUS.
- c. Helicopters.
- d. Boats.

6.52 Ongoing Training-Rescue Methods

Training in how to be rescued from an inflatable raft should include rescue by the four possible methods as follows:

- a. Rescue by vessel.
- b. Rescue by seaplane.
- c. Rescue by helicopter.
- d. Rescue by survival craft.

Caution is advised **concerning the** inflation of a raft **on-board** a rig or platform for training purposes due **to** the possibility of damaging the raft during **inflation** and subsequent repacking into its protective canister. USCG raft approval requirements and the manufacturer's operations procedures and instructions should be used to develop specific training programs involving use of rafts. Note: Repacking a raft on scene will void required USCG approval. The USCG approval process requires servicing by an approved service facility and has no provision domestically for servicing and repacking on scene.

The following items should be included when planning and conducting training for rescue from inflatable rafts:

- a. Stay near other rafts if possible.
- b. Use all means to attract attention.
- c. Signal of rescue units.
- d. Plan activities to effect rescue.
- e. The need for and organization of discipline, and duties of the person in charge.

6.5.2.1 Rescue by Surface Vessel

Training in how to be rescued by a surface vessel should cover, but not be limited to, the following:

- a. Prevent fouling of lines or sea anchor with the approaching vessel.
- b. Receive and attach a towline. Prepare to be towed:
 - Proper line to use.
 - Proper point of attachment to raft.
 - Need for minimum movement of personnel in raft.
 - Need to keep towline under observation.
 - Need to establish basic signaling system with towing vessel.
 - Assignment of duties by person in charge of raft.

6.5.2.2 Rescue by Seaplane

Training in how to be rescued by a seaplane should cover, but not be limited to, the following:

- a. Haul in all lines and sea anchors.
- b. Paddle toward the aircraft when pilot signals.
- c. Watch for propellers.

6.5.2.3 Rescue by Helicopter

Training in how to be rescued by a helicopter should cover, but not be limited to, the following:

- a. Pilot is in charge of operations.
- b. Raft occupants should indicate wind direction.
- c. Lower radio aerials if erected.
- d. Stay low and keep raft balanced in rotor wash downdraft.
- e. Enter the water as lifting device is lowered because raft will be blown about by the downdraft of helicopter.
- f. Rescue with a scoop net or similar device.
- g. Rescue with a pickup strap or underarm harness.
- h. Rescue by a harnessed crew member if rescues are help-less.
- i. Properly attach lifting device.
- j. Keep lift line free and clear.
- k. Detach lifting device from lift line while strapping in the injured.
- l. To prevent capsizing, keep raft balanced when personnel enter the water for rescue or are lifted out of the inflatable raft.

6.6 SURVIVAL CRAFT

6.6.1 Initial Training

All personnel working on offshore facilities that utilize motorized survival craft should receive training in the following areas as soon as is practical after their initial arrival:

- a. The craft to which they are assigned, their duties as part of that crew, and the boarding and launching procedures.
- b. Survival craft discipline; the person in charge and the

chain of command; the use of seatbelts, lifejackets, or immersion suits; prevention of panic.

- c. The capabilities and characteristics of their craft in different sea states and conditions, including roll-over and self-righting ability, stability, and watertight integrity.
- d. Familiarization with the mechanical systems that launch, propel, and protect the craft from fire.

6.6.2 Ongoing Training for Personnel Being Rescued

Training in how to be rescued from survival craft should include the following topics:

- a. Dangers and risks associated with recovery of personnel from the craft, especially during adverse conditions.
- b. Techniques for recovery of personnel from craft by a fixed platform or MODU.
- c. Techniques for recovery of personnel from the craft by a vessel.
- d. Techniques for retrieval of the entire survival craft by a fixed platform or MODU.
- e. Techniques and limitations of survival craft pickup by a vessel equipped with a hoisting apparatus.
- f. Techniques and procedures for attaching a towline and taking the survival craft in tow.
- g. Considerations affecting how the occupants of the survival craft are to be rescued. Some of these considerations are:
 - The key point in a rescue at sea is that it must be properly planned and timed.
 - If there are no serious injuries aboard the survival craft, retrieval or rescue may be delayed until seas are calm, staying nearby the area where the craft was launched into the water.
 - If injuries are involved, their nature and life-threatening potential should be evaluated carefully by the person in charge before a rescue attempt is made.
- h. Techniques for rescue of occupants from the craft during various situations to be considered are:
 - Structural damage of the survival craft.
 - Injury to the occupants.
 - Debris or petroleum products in the water.
 - Fire on the water.
- i. Techniques to safely maneuver the survival craft alongside the rescue vessel.
- j. Techniques to safely transfer people from a survival craft to a larger vessel. The training should be as realistic as practical and should be repeated frequently enough to allow those involved to become familiar with the task.
- k. The stability characteristics of the survival craft that that person may be required to utilize in an emergency. This training should include instructions or information as to the righting characteristics of the craft and what to do if the vessel capsizes.

6.6.3 Ongoing Training for Use of Survival Craft as a Rescue Vessel

This training should include the following topics:

- a. Planning, launching, and coordinating the search and rescue.
- b. Maintaining communications with spotters on other craft or facilities.
- c. Proper approach to a person in the water; dangers of injury from contact with the boat propeller.
- d. The effects that weather conditions and the physical condition of the person in the water will have on rescue techniques.
- e. Techniques for getting persons from the water into the craft, conscious and unconscious.

6.6.4 Ongoing Training for Survival Craft Persons in Charge

The training of persons in charge shall utilize survival craft of the same type as will be utilized in an actual offshore emergency, and should include:

- a. Hands-on experience training in maneuvering the survival craft, and in retrieval of the survival craft by both a fixed platform and a rescue vessel. These drills may occur as a portion of any regularly scheduled launch and recovery drill.
- b. Procedures for towing of survival craft by another vessel.
- c. Hands-on practice of procedures for transferring personnel from a survival craft to a rescue vessel.
- d. Hands-on training in man overboard recovery consisting of:
 - Control operation of craft.
 - Stability exercise.
 - Rescue training, including retrieval of an uninjured and an injured victim.
- e. Training in evaluation of the weather and sea states in making the decision of which type of rescue would be best. Specifically, the following points shall be thoroughly discussed in this training:
 - The possibility that, especially in inclement weather, transferring personnel from the survival craft to a rescue vessel could put them at greater risk.
 - The hazards involved in transferring personnel from the survival craft to a rescue vessel include the necessity to open the survival craft hatch, which may expose the otherwise seaworthy craft to swamping.

- Consideration of factors bearing on decision whether or not: (1) to attempt to be picked up by a fixed platform, MODU, or boat; (2) to hold position until the rough weather subsides; or (3) to head ashore in order to beach the craft.

- The impact that severely injured personnel aboard the survival craft may have on the decision of how to be rescued.

- f. Navigation-at-sea training, which shall specifically include information on the maximum range and operating time of the survival craft to which a person is assigned.

6.7 RESCUE BOATS

6.7.1 Initial Training

Designated crew members of a platform, MODU, or a vessel that has a rescue boat shall be trained in the use of the rescue boat. Specific training guidelines should be defined with regard to the responsibilities of each designated crew member and where the training will be conducted. Minimum training should consist of:

- a. Familiarization of operation and maintenance of the rescue boat.
- b. Launch and recovery of rescue boat.
- c. Rescue techniques to include approach and recovery of (1) uninjured person, and (2) injured person (both conscious and unconscious).
- d. Use of other equipment that may be furnished, such as:
 - Swimmers' harness and lifeline.
 - Protective clothing (hypothermia protection).
 - Rescue net.

All of the above training should be conducted using "hands-on" techniques in the most realistic manner possible.

6.7.2 Ongoing Training

Further rescue training may be conducted as new techniques are devised and when new or improved rescue equipment is developed. Rescue drills are the primary means of ongoing training. Frequency and extent of rescue drills will vary with need and opportunity. Rescue drills at sea are to be conducted only if weather permits. These drills should be conducted *simulating* a victim in the water. Complete wet drills can be conducted when in port.

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