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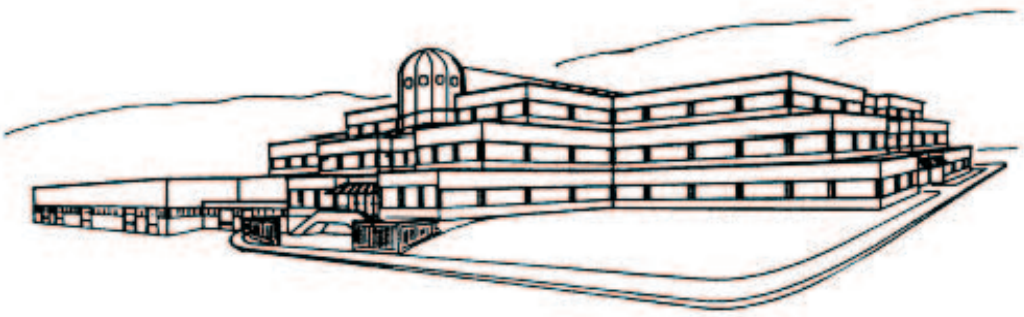

MARINE INSTITUTE

School of Maritime Studies

Offshore Safety and Survival Centre

Basic Survival Training (Recurrent)

The Fisheries and Marine Institute
of
Memorial University of Newfoundland

School of Maritime Studies

Offshore Safety and Survival Centre

Basic Survival Training (Recurrent)

March 1995
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P.O. Box 4920, St. John's, Newfoundland and Labrador
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BASIC SURVIVAL TRAINING (RECURRENT)

TYPE AND PURPOSE: This course is designed to provide participants with recurrent training to ensure continued proficiency in the use of safety, survival, and rescue equipment and to provide current information with respect to advancements in equipment technology and procedures, as required by CNOPB and CAPP regulations.

CALENDAR ENTRY: Hazards and Emergencies; Evacuation; Survival Strategies; Rescue; and Helicopter Transportation

CERTIFICATE AWARDED: Certificate of Achievement

PREREQUISITES: Valid Basic Survival Training (BST) certificate or equivalent.
Marine Institute approved Medical Clearance.

RENEWAL: Three (3) years

SCHEDULE:

Duration:	16.0 hours (2 Days)
Theory:	6.5 hours
Practical:	9.5 hours

COURSE AIMS: To provide participants with updated knowledge, skill, and proficiency respecting:

1) The hazards associated with the marine environment, offshore petroleum installations, and helicopters.
2) The alarms and emergency response procedures on board offshore petroleum installations and helicopters.
3) The survival and rescue equipment and procedures on board offshore petroleum installations and helicopters.

EVALUATION: To achieve Pass status participants must:

¬ Have 100% attendance.

¬ Demonstrate competency to complete exercises as identified in the practical evaluation checklists.

MAJOR TOPICS:

1.0 Hazards and Emergencies
2.0 Evacuation
3.0 Survival
3.0 Rescue
5.0 Helicopter Transportation

COURSE OUTLINE:

1.0 Hazards and Emergencies

- 1.1 Hazards
- 1.2 Emergency Situations
- 1.3 Emergency Response

2.0 Evacuation

- 2.1 Circumstances
- 2.2 Methods
- 2.3 Procedures

3.0 Survival

4.0 Rescue

- 4.1 Equipment4
- .2 Procedures

5.0 Helicopter Transportation

- 5.1 Procedures
- 5.2 Equipment
- 5.3 Emergencies
- 5.4 Compressed Air Helicopter Underwater Emergency Breathing Apparatus (HUEBA)
- 5.5 Helicopter Underwater Escape Training (HUET)

LEARNING OBJECTIVES:

THE EXPECTED LEARNING OUTCOME IS THAT THE STUDENTS WILL BE ABLE TO:

1.0 Hazards and Emergencies

1.1 Hazards

- Identify potential hazards on offshore petroleum installations.
- Discuss potential hazards on offshore petroleum installations.
- Identify potential hazards to personnel onboard offshore petroleum installations.
- Discuss potential hazards to personnel onboard offshore petroleum installations.

1.2 Emergency Situations

- Discuss potential emergency situations that could occur on offshore petroleum installations.
- Discuss statistics regarding incidents and emergencies that have occurred in the oil and gas industry.
- Discuss statistics of incidents and emergencies in the oil and gas industry.

1.3 Emergency Response

- Discuss purpose and contents of station bill.
- Discuss common alarm signals used to identify onboard emergencies.
- Discuss personal duties in an emergency onboard an offshore petroleum installation.

2.0 Evacuation

2.1 Circumstances

- Analyze circumstances that could lead to an offshore petroleum installation being evacuated.
- Discuss emergency situations that could lead to evacuation on an offshore petroleum installation.

2.2 Methods

- Determine the methods and associated equipment for evacuating offshore petroleum installations.
- Evaluate the hazard levels for different evacuation methods used onboard offshore petroleum installations.
- Prioritize the evacuation methods used onboard offshore petroleum installations for specified circumstances.

2.3 Procedures

- Demonstrate the precautions and procedures for evacuating when using equipment located onboard offshore petroleum installations.
- Participate, as a crewmember, in the evacuation of an offshore petroleum installation by any available means.
- Perform post-evacuation procedures for the various evacuation methods.
- Discuss innovative evacuation procedures.

3.0 Survival

- Identify aspects of a survival plan.
- Discuss components of a survival plan.
- Appraise the importance of leadership and team effort in survival scenarios.
- Apply leadership and team effort concepts in survival scenarios.
- Perform essential tasks during simulated survival scenarios.

- Outline priorities given to essential tasks during simulated survival scenarios.
- Participate in survival scenarios utilizing the various survival crafts to attain maximum protection.
- Discuss recent advancements in survival practices.

4.0 Rescue

4.1 Equipment

- List the rescue equipment utilized during rescue efforts.
- Describe the rescue equipment applications utilized during rescue efforts.
- Discuss innovations in rescue equipment.

4.2 Procedures

- Prepare various survival craft and their crew for rescue.
- Operate various survival craft during rescue operations.
- Utilize signalling devices.
- Explain the importance of establishing communications with the rescuers during a rescue operation.
- Use the various pieces of rescue equipment found on board the various survival craft.
- Participate in various simulated rescue operations.
- Practice self rescue during simulated rescue operations.
- Demonstrate self rescue by any means.

5.0 Helicopter Transportation

5.1 Procedures

- Identify the danger zones for passengers approaching a helicopter.
- Explain the recommended precautions to be taken when approaching a helicopter.
- Discuss actions during a helicopter in-flight emergency.
- List the passenger actions to be performed at each stage of a helicopter in-flight emergency.
- Discuss innovations in helicopter transportation.

5.2 Equipment

- Demonstrate the correct pre and post checks for the flight suit.
- Discuss pre-flight inspection procedures for HUEBA.
- Demonstrate pre-flight checks on HUEBA.
- Perform the correct donning and doffing procedures for the flight suit.
- Demonstrate donning a transit type survival suit with HUEBA equipment.
- List the safety equipment on helicopters for passenger use.
- Determine the purpose and proper use of helicopter safety equipment.
- Operate the various helicopter safety equipment.
- Identify emergency response equipment on helicopters
- Determine the probable storage location of the emergency response equipment found onboard helicopters.
- Analyze the purpose of the emergency response equipment found on board helicopters.
- Operate the emergency response equipment found onboard helicopters.

5.3 Emergencies

- Analyze helicopter in-flight emergencies.
- Categorize helicopter in-flight emergencies.
- Discuss possible results of helicopter in-flight emergencies.
- Differentiate between the two stages of helicopter in-flight emergencies.

5.4 Compressed Air Helicopter Underwater Emergency Breathing System (HUEBA)

- Discuss the need for HUEBA.
- Identify time required to egress a capsized helicopter.
- Examine factors affecting individual breath-hold time.
- Discuss egress time versus breath-hold time.
- Examine Boyles Law and the relationship between pressure and volume.
- Discuss the direct effects of pressure on the human body.
- Describe the mechanism of lung over-pressurization.
- Identify the cause, treatment and prevention of; arterial gas embolism, mediastinal emphysema, subcutaneous emphysema, pneumothorax.
- Describe the purpose of HUEBA.
- Identify the two major types of HUEBA.
- Identify the main components of HUEBA.
- Describe the function of the main components of HUEBA.
- Identify the limitations of HUEBA.
- Describe the operating principles of HUEBA.
- Describe procedure for deploying HUEBA.
- Describe HUEBA clearing procedures.
- Identify importance of breathing normally and never holding your breath.
- Identify HUEBA malfunctions including; free flow and flooded.
- Describe actions to take in the event of a malfunction.
- Practice carrying out breathing actions using HUEBA equipment at atmospheric pressure in dry conditions.
- Demonstrate deployment and operation of HUEBA equipment in a shallow water environment (less than 1 meter).
- Demonstrate breathing actions in a shallow water environment (less than 1 meter) including; breathe underwater using HUEBA, deploy and clear HUEBA while underwater, breathe while inverted underwater using HUEBA, deploy and clear HUEBA while inverted underwater.

5.5 Helicopter Underwater Escape Training (HUET)

- Participate in an introductory safety briefing.
- Respond to alarm phase of a simulated emergency.
- Open emergency exits at an appropriate time
- Use emergency exits at an appropriate time.
- Participate, as a passenger, in simulated in-flight emergencies.
- Exit the HUET on the surface of the water.
- Exit the HUET when capsized.
- Launch a helicopter life raft.
- Use the helicopter life raft in a simulated survival situation.

SUMMARY OF PRACTICAL LEARNING OBJECTIVES:

2.0 Evacuation

2.1 Demonstrate the precautions and procedures for evacuating when using equipment located onboard offshore petroleum installations.

2.2 Participate, as a crewmember, in the evacuation of an offshore petroleum installation by any available means.

2.3 Perform post-evacuation procedures for the various evacuation methods.

3.0 Survival

3.1 Apply leadership and team effort concepts in open water survival scenarios.

3.2 Perform essential tasks during simulated survival scenarios.

3.3 Participate in survival scenarios utilizing the various survival crafts to attain maximum protection.

4.0 Rescue

4.1 Prepare various survival craft and their crew for rescue.

4.2 Operate various survival craft during rescue operations.

4.3 Utilize signalling devices.

4.4 Explain the importance of establishing communications with the rescuers during a rescue operation.

4.5 Use the various pieces of rescue equipment found on board the various survival craft.

4.6 Participate in various simulated rescue operations.

4.7 Practice self rescue during simulated rescue operations.

4.8 Demonstrate self rescue by any means.

5.0 Helicopter Transportation

5.1 Demonstrate the correct pre and post checks for the flight suit.

5.2 Demonstrate pre-flight checks on HUEBA.

5.3 Perform the correct donning and doffing procedures for the flight suit.

5.4 Demonstrate donning a transit type survival suit with HUEBA equipment.

5.5 Operate the various helicopter safety equipment.

5.6 Operate the emergency response equipment found onboard helicopters.

5.7 Practice carrying out breathing actions using HUEBA equipment at atmospheric pressure in dry conditions.

5.8 Demonstrate deployment and operation of HUEBA equipment in a shallow water environment (less than 1 meter).

5.9 Demonstrate breathing actions in a shallow water environment (less than 1 meter) including; breathe underwater using HUEBA, deploy and clear HUEBA while underwater, breathe while inverted underwater using HUEBA, deploy and clear HUEBA while inverted underwater.

5.10 Participate in an introductory safety briefing.

5.11 Respond to alarm phase of a simulated emergency.

5.12 Open emergency exits at an appropriate time.

5.13 Use emergency exits at an appropriate time.

5.14 Participate, as a passenger, in simulated in-flight emergencies.

5.15 Exit the HUET on the surface of the water.

5.16 Exit the HUET when capsized.

5.17 Launch a helicopter life raft.

5.18 Use the helicopter life raft in a simulated survival situation.