Approved competency framework for Skipper Restricted Limits (SRL)

Function: Navigate the vessel at the management level

Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
Plan & conduct a vessel passage		1: Practical 1A: On board 2: Knowledge	
Chart work, use of navigation instruments and publications	1. The principles of Mercator projection	2	Explains as applied to the development of navigational charts
	2. Measuring distance	1	Measures distance between two points on a navigational chart using the Mercator principles
	3. Plotting and expressing position	1	Plots position and expresses by latitude and longitude
	4. Plotting a safe course	1	Plots course between two defined points and expresses in terms of true and magnetic bearings
	5. Use of plotting instruments	1	Demonstrates correct use including: dividers, plotter and parallel rule
	6. Navigational chart symbols, notes and corrections	2	Identifies chart symbols and describes their meanings in accordance with Chart BA 5011 including: rocks and other hazards, chart datum, depth contours, sea bed type and submerged features, coastline features, light characteristics, magnetic variation data, chart.
	7. Position plotted and expressed using chart work techniques and expected time of arrival is determined	1	Expresses position using latitude, longitude, bearing, distance from a location or chartered feature, transits and soundings
	8. Information contained within	2	Explains information in relation to safe navigation, including: Notices to New Zealand Mariners, New Zealand Safety Notices, NZ Nautical Almanac, NZ 202 and BA 5011.

	maritime publications, including information accessible via the Land Information New Zealand (LINZ) website		
	9. Techniques demonstrated to fix position	2	Fixes position utilising the following techniques, or a combination of techniques: • DR positions • Visual bearing by Magnetic Compass • Transits • Radar Ranges • GPS Latitude/Longitude readout Explains course and ground track, and logged speed and speed over ground
Magnetic compass	1. The Earth's magnetic field.	2	Explains magnetic variation and magnetic anomalies
	2. Construction, care, and maintenance	2	Describes in accordance with manufacturers' specifications
	3. Compass bearings, including: true to magnetic, magnetic to true	1	Converts bearings in accordance with the stated current or predicted value of variation at a given time and location
	4. Magnetic influences within a vessel are identified	2	Describes influences that may affect a compass, including an awareness of heeling error
	5. Deviation and its	2	• Explains effects of deviation and methods for applying, eliminating or

	effect on a magnetic compass		minimising and describes when a compass needs to be adjusted, and who carries this out • Describes the use of the Compass Declaration and Table of Deviations.
Tides	1. Causes of tidal phenomena	2	Describes the causes and cycle of tides
	2. Abbreviations and terms associated with tides	2	Demonstrates understanding of meanings, including: spring tides, neap tides, height, range, duration, MHWS, MLWS, MHWN, MLWN and chart datum
	3. The use of tide tables to find tidal information	1	• Demonstrates use of tide table including: times and heights of high and low water at standard ports and times of high and low water at secondary ports • Describes the effect of barometric pressure on tide heights
	4. Use of tidal diamonds	1	Demonstrates determination of the predicted direction and rate of tidal current at the charted location of tidal diamonds
	5. Predict sea conditions	2	Predicts conditions for a combination of varying tidal flows, wind direction, strength and fetch, related to the limitations of the vessel and crew
Meteorology and navigational marks	1. Pressure systems	2	Identifies and explains systems and associated weather conditions from a mean sea level analysis chart including: anticyclones, depressions, cold fronts, warm fronts and occluded fronts
	2. Estimate wind speed and direction	1	Estimates wind for New Zealand waters from interpretation of a mean sea level analysis chart
	3. Meteorological conditions leading to the formation of fog and other forms of restricted visibility	2	Describes effects including advection & radiation fog, rain and snow
	4. Geographic influences on surface winds	2	Explains effects and interprets terms, including: funnelling, katabatic winds and land and sea breezes
	5. Weather forecast sources and terminology	2	States sources of New Zealand national and local marine weather forecasts and interprets terminology, including: backing, veering, gusts, knots, sea, swell, anticyclone, high pressure, depression, low pressure, cyclone, tropical depression,

			cold front, warm front and occluded fronts
	6. Use and interpretation of an aneroid barometer	2	Demonstrates use and interpretation of readings including: recording regular readings, direction and rate of change of surface pressure
	1. Knowledge of IALA region A buoyage system	2	Explains the international system of buoyage and applies in accordance with the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA) System 'A' Maritime Buoyage System
	2. The conventional direction of buoyage in NZ	2	Explains in accordance with New Zealand's System of Buoys and Beacons
Maintenance of a safe navigational watch	1. Safe watchkeeping practices under different conditions	2	Conditions include: • Restricted visibility • Good visibility • At anchor • Heavy weather • Hours of darkness
	2. Effect of human factors on safe watchkeeping practices	2	Explains the effects of fatigue, stress, distraction, over-reliance and complacency and describes mitigation, management practises
	3. Collision prevention	1A	Operates vessel in accordance with the Collision Prevention rules
	4. Watchkeeping	1A	Demonstrates watchkeeping practices including: single operator practice, single point error, risk management principles, situational awareness and communication
	5. Monitor vessel's position and course	1A	Fixes position by a variety of methods and takes action to return vessel to planned ground track as necessary

Function: Electronic Navigation at the management level

Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
Knowledge of electronic navigational systems		1: Practical 1A: On board 2: Knowledge	
Electronic Aids and Navigation Systems	1. Principles of operation, controls and terminology of GPS / Chart Plotters	2	• Explains: equipment set-up, satellite geometry, accuracy & errors, initialisation, controls, screens and terminology and need to use paper charts • Explains purpose, limitations and precautions when using the global positioning system (GPS), including; speed over ground, course over ground and waypoints
	2. Electronic charts	2	• Describes differences between an approved ECDIS and a non-approved chart plotter • Explains: scale & detail, over-zooming, vector versus raster, updating, layers, interrogation & data boxes, screen selection & orientation, emphasising the limitations of electronic charts
	3. GPS/Chart plotter functions and tools	1A	Demonstrates use of MOB, Mark, and safety margin alarms
	4. Route planning	1	Plans passage using approved paper charts and transfers to an electronic navigation system. Hazard identification, waypoint placement, position monitoring, bearing to way point & cross track error, waypoint realisation & abeam passage

	5. Principles of operation, components, controls and displays of vessel marine radar	2	Magnetron and solid state, basic components, common controls, functions and their use Describes over-lays, north-up, head-up, off centre, true motion, stabilised & un-stabilised and the set-up procedure
	6. Target discrimination, collision avoidance, use and limitations of radar navigation	2	Bearing, range and effect of change. Effect of poor weather and sea conditions, radar reflectors. Use of RACONs & SARTs, EBL, VRM & parallel index, plotting. Knowledge of requirements of Maritime Rule Part 22.19
	7. Radar is used to position vessel and avoid collision	1A	Uses radar with Maritime Rule Part 22
	8. Echo sounder	2	Describes principles of operation and use as a navigational aid
	9. Automated Identification System	2	Describes principles of operation and use in collision avoidance

Function: Manage Vessel Operations

Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
Management of vessel operations		1: Practical 1A: On board 2: Knowledge	
Maintain vessel stability	1. Factors affecting the stability of the vessel	2	Describes factors correctly including: G, B, M, GZ, capsize lever, righting lever, loll, list, heel, lifting and lowering weights, the effect of list and trim, and the effect of "free surface" and how to minimise or eliminate
	2. Interprets stability data	1A	Interprets vessel data to maintain stability across the range of load and weather conditions for which the vessels is designed

	3. Maintain adequate vessel stability for prevailing conditions.	1A	Maintains vessel stability across a range of load and weather conditions
	4. Recognise and correct a loss in stability.	2	• Describes likely causes and signs of a loss of stability including roll period • Describes actions to be taken to correct any loss of stability
Manoeuvre the vessel	1.Effects of elements and vessel characteristics	1A	Explains and demonstrates the effects of the rudder, propeller, pivot point, tide and windage on a vessel
	2. Vessel handling techniques	1A	Describes and demonstrates techniques including: stopping and turning in confined spaces utilising transverse thrust / prop-walk, use of back-up engine controls, coming alongside and springing off, correct use of mooring lines including bow line, stern line, bow spring and stern spring as applicable to the vessel
	3. Types and purpose of anchors and ground tackle	I	• Identifies anchor types and compatibility with seabed • Describes anchors carried
	4. Anchoring techniques	2	Describes and demonstrates techniques in relation to different types of anchor, anchorage seabed, and the use of chain and warp combinations in accordance with industry practice in a variety of situations and conditions
	5. Anchorage selection	2	Selects suitable anchoring positions in accordance with: shelter afforded, absence of hazards, depth, effect of tides and weather conditions
	6. Vessel handling in heavy weather	2	• Describes preparation for heavy weather • Discusses techniques for helming, use of speed, engines, drogues, sea anchors, following seas, head-seas and beam seas including preparation for heavy weather and actions in heavy weather
	7. Bar crossing	2	Describes techniques in accordance with MNZ guidelines and best industry practice, including life jacket use
	8. Use of small boats including dinghies and tenders	2	Describes safe use, including: launching, retrieving and handling, safety equipment and use of life jackets

Ropes and rope-work and safe practices working on deck	1. Laid and braided rope	2	Identifies materials, properties, and marine applications of commonly used laid and braided rope in accordance with industry practice
	2. General care	2	Describes general care of lines to ensure longevity and minimise the likelihood of failure is described in accordance with best industry practice
	3. Knots, bends and hitches	1	Ties common knots, bends and hitches for marine applications including: single sheet bend, double sheet bend, round turn and two half hitches, bowline, clove hitch, figure of eight knot and reef knot
	4. Safe techniques for securing to cleats, bollards, coiling and use of heaving lines	1	Demonstrates coiling rope and securing to a cleat or bollard and use of a heaving line
	5. Safe deck practices are described	2	Describes safe practices and correct techniques when using: • Winches • Anchor windlasses • Lifting gear • Surge drums • Fishing equipment

Function: Manage Vessel Safety and Compliance

Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
Management of the vessel, legal compliance and emergencies		1: Practical 1A: On board 2: Knowledge	
Maritime Transport Act and Maritime Rules	1. Duties of the master of a vessel	2	Explains responsibilities and authority for safety and compliance in accordance with sections 19 & 65 of the Maritime Transport Act
	2. Collision Prevention Rules	2	Explains and applies Rules in accordance with Part 22 of the Maritime Rules

	3. Navigation Safety Rules and Regional By Laws	2	Explains and applies Rules in accordance with Part 91 of the Maritime Rules
	4. Pollution Prevention Regulations & Local By Laws	2	Explains and applies Rules in relation to discharge and disposal of oil, sewage, and garbage in accordance with the Maritime Transport Act, Marine Protection Rules and the Resource Management Act
Lifesaving and safety equipment	1. Lifesaving appliances required to be carried	2	Explains in accordance with Maritime Rules for a restricted limit vessel
	2. The purpose and maintenance of personal flotation devices	2	Explains in accordance with Maritime Rule 42a and 42b and NZS 5823, including man overboard equipment, floatation devices and inflatable life rafts as required for own vessel.
Fire on-board, fire prevention techniques, and fire extinguishers	1. Purpose, limitations, use and servicing / maintenance requirements for different types of fire extinguishers	1A	Explains in accordance with Maritime Rules and New Zealand Standards 4503, including dry powder, carbon dioxide, aqueous film forming foam, and water extinguishers
	2. Fire fighting appliances	1	Explains in accordance with Maritime Rules for a restricted limit vessel
	3.Fire prevention	1A	• Identifies and describes the common locations of equipment, maintenance of equipment and causes and prevention of fire on-board vessels, including locations such as: machinery space, galley, wheelhouse, accommodation; and causes: electrical, fuel and refuelling, LPG, smoking hazards • Explains extinguishing a fire using a fire extinguisher and/or fire blanket
Enclosed spaces	1. Dangers of enclosed and confined spaces	2	• Understands the dangers of entering enclosed and confined spaces • Describes procedures for entry, rescue and safe working

International distress signals	1. Limitations and effectiveness of international distress signals	2	• Describes in accordance with industry practice • Explains obligations to assist in distress • Lists all international distress signals • Describes use of: Pyrotechnics/ EPIRB/ VHF • Understands actions to be taken if distress signal sighted/ heard
	2. The activation process of manual and float-free EPIRBs	2	• Describes in accordance with manufacturer's specifications
	3. Activation process of distress pyrotechnics	2	Explains in accordance with manufacturers' instructions, including red parachute flares, red hand-held flares, buoyant and hand-held orange smoke signals
	4. The meaning and format of radio telephone signals including: distress, urgency & safety calls	2	Describes in accordance with the current MNZ Radio Handbook for Coastal Vessels
	5. Cellular phones in distress situations at sea	2	Describes uses and limitations
Emergencies, accidents and Incidents	1. Reporting	2	Understands and describes Maritime New Zealand requirements for accident and incident reporting process
	2. Collision	2	Explains actions to take in the event of an accident or incident and the responsibilities of the master of a vessel involved in a collision, in terms of safety considerations regarding own vessel and crew and other vessel and its crew
	3. Fire	2	• Understands and explains preventative fire measures including fire drills, fire detectors and fire patrols • Explains actions to be taken in event of fire aboard the vessel, including fire fighting systems and equipment and operation and crew duties
	4. Grounding	2	Explains actions to be taken in the event of grounding of a vessel in accordance with best seamanship and industry practises

	5. Man Overboard	1A	• Demonstrates actions in the event of, a "Man Overboard" incident in terms of techniques and equipment to aid the location, approach and recovery of a person in a simulated situation including: life rings, vessel handling and approach • Describes prevention actions
	6. Engine and steering failure	1A	Demonstrates actions to be taken in the event of propulsion engine failures in vessels
	7. Controlling water ingress	1A	Describes causes of, and methods of, controlling ingress of water in a vessel
	8. Towing	2	Describes equipment, techniques, safety issues and legal responsibilities associated with towing another vessel, and being towed, including: the advantages and dangers of spring and/or stretch in the tow line, setting up and adjusting the tow for prevailing sea conditions and trimming the towed vessel
	9. Abandon-ship	1A	Understands and explains the procedure for abandoning ship
	10. Medical emergencies, care and equipment	2	Describes the equipment to be carried on-board vessels and the procedures in the following medical emergencies
	11. Hypothermia and seasickness.	2	Explains the cause, prevention, signs and treatment of hypothermia and seasickness
	12. Radio medical advice	2	Explains the procedure for obtaining radio medical advice in accordance with the current Maritime New Zealand Radio Handbook for Coastal Vessels
Safety Drills	Conduct safety drills	1A	Conducts safety drills in accordance with the vessels safety system: MOB, fire, collision and abandon ship
Search and rescue (SAR)	1. New Zealand search and rescue system	2	Explains SAR organisation roles including Maritime New Zealand/Rescue Coordination Centre New Zealand, Police and Coastguard
	2. SAR / EPIRB registration and reporting	2	Explains the importance of correct recording of all details which may be used in a SAR, including EPIRB registration, MMSI number, call sign, trip report and emergency contact details
Hazard management	Conduct hazard identification	1A	Conducts hazard identification is conducted and a vessel hazard register

Function: Manage Legal Compliance on a Restricted Limits Vessel

Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
Legal requirements for operation of a commercial vessel		1: Practical 1A: On board 2: Knowledge	
	1. Vessel operation and applicable legislation	2	Identifies the operations of a commercial vessel as conforming to all applicable legislation including operational limits, qualifications, crewing and watch keeping, minimum personnel, all applicable maritime rules, guidance notices and safety bulletins
Maritime Operator Safety System	1. Maritime Operator Safety System (MOSS)	2	Understands and describes the requirements of MOSS, consistent with Maritime Rules Parts 19 and 44
	2. Maritime Transport Operator Plan (MTOP)	2	Understands and describes the requirements for issue of a MTOP, consistent with rule requirements, including requirements for a Fit and Proper Person
	3. Maritime Transport operator Certificate (MTOC)	2	Understands and describes the requirement for issues of an MTOC, consistent with maritime rules
Integrated compliance	Integrate compliance within vessel operation	1A	Integrates vessel safety management system into the operation and management of the vessel Demonstrates on-going continuous improvement by evolving safety system and documentation and review

Function: Manage Operation of Vessel Machinery and Systems

Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
Operation of vessel's propulsion and auxiliary machinery, and systems		1: Practical 1A: On board 2: Knowledge	
Operation and care of diesel engines	1. Common systems and components	2	Demonstrates knowledge of 4 & 2 stroke cycle, principal engine components, location and functions
	2. Fuel Systems	1A	Identifies key components and describes their purpose, including diesel supply from fuel tank to injectors, filters, pumps and bleed points, identifying faulty injectors by touch. Common rail and jerk systems including refuelling the vessel
	3. Lubrication System	1A	Identifies key components and describes their purpose, including: layout of a typical lubrication system, types of oil & checking oil, reasons and cures for abnormal oil pressure
	4. Air System	1A	Identifies key components and describes their purpose, including: filters, turbo charger, blowers, exhaust system and exhaust colour diagnosis
	5. Cooling System	1A	• Identifies key components where applicable and describes their purpose, including typical raw water cooling systems, components and functions, impeller replacement, system blockages and rectification, anodes, anti-siphoning valves, typical fresh water cooling systems, components and functions • Understands and explains impeller replacement, heat exchangers, the importance of correct coolant, thermostat checking and replacement and keel-cooling systems
	6. Electrical System	1A	Identifies key components and describes their purpose, including batteries, starting systems, glow plugs, alternators, charging systems, drive-belt adjustments, fuses and circuit breakers

	7. Propellers & Stern Glands	1A	Identifies and describes key components, including propeller shaft, stern glands and flexible couplings
	8. Gearboxes	1	Identifies key components and describes their purpose, including monitoring of oil levels, operations of different types of controls, and emergency operation of gearbox
	9. Engine and thrust bearing mountings	1	Identifies key components and describes their purpose
	10. Control systems	1	Identifies key components and describes their purpose
Operation of care of outboard engines	1. Background knowledge	2	Describes knowledge and, where applicable, identifies, including difference between 2 and 4 stroke engines, locations of electrics, spark plugs, engine controls, air filter, carburettor, gearbox, filler plugs, anodes, water intake and outlet
	2. Fuel system	1A	Understands and demonstrates integral/portable/built in fuel tanks, 2 stroke fuel mixture, venting, effects of stale fuel, filters, carburetor (jets, floats)
	3. Lubrication system	1A	Understands and demonstrates 2 stroke lubrication, 4 stroke lubrication, types of oil, checking and topping up oil in engines and gearboxes
	4. Cooling system	1A	Understands and demonstrates water flow path, impeller, overheating, salt build-up, flushing, cooling tell-tale
	5. Electrical system	1A	Understands and demonstrates battery installation, safety and maintenance, ignition systems and spark plugs, electrolysis, sacrificial anodes, salt water corrosion, trim tabs, starter motor, emergency starting, 'kill switch' and 'kill-cord', stop button
	6. Gearbox and propeller	1	Understands and demonstrates changing gear, changing a propeller, shear pin replacement, cavitation & ventilation, definition of pitch
	7. Control systems	1	Understands and demonstrates remote, and emergency steering, cable, wire and hydraulic systems, throttle and gear cables, trim and tilt, shallow water use, recoil starter

Operational procedures	1. Machinery operating procedures	2	Describes normal operational procedures for engine as described in the safety management system
	2. Safe working practices	1A	Operates vessel's propelling machinery is operated whilst maintaining safe working practices and situational awareness
Operate and monitor a vessel's propulsion engines and auxiliary equipment	1. Load/check spares, fuel, lubricants and fresh water for intended voyage	1A	• Prepares vessel in accordance with the vessel's safety management plan including knowledge of fuel and lubricant piping systems, valves, pumps and safety arrangements • Loads fuel and lubricants in accordance with the vessel's safety management plan • Checks spare and ensures they are sufficient to cover emergencies and are in accordance with the vessel operating practices • Fill fresh water tanks in accordance with the vessel operating practices • Complete documentation in accordance with the vessel's safety management plan
	2. Pre-start checks of engines and auxiliary equipment	1A	• Complete pre-start checks in accordance with the vessel's safety management plan including, where applicable, propulsion engine/s, including: fuel, oil and cooling water header tank levels, valves, V-belts and hoses • Understands and demonstrates, where appropriate, auxiliary equipment including: generators, batteries, bilge pumps, strainers, bilge water levels and alarms, refrigeration, hydraulic system, fire-fighting system, electrical system (fuses/circuit breakers and switchboards)
	3. Start and monitor engines and auxiliary equipment	1A	Starts engines and auxiliary equipment with gauges and instrument readings monitored during warm-up in accordance with the manufacturer's operating instructions
	4. Test alarms and safety arrangements	1A.	Tests alarms in accordance with the manufacturer's operating instructions
	5. Emergency starting	2.	Describes procedures in accordance with the vessel's safety management plan
	6. Shut-down of engines and auxiliary equipment	1A.	Follows procedures in accordance with the vessel's safety management plan

Monitor the operation of the vessel's engines, drive train, and auxiliary equipment	1. Operate vessel's engines and equipment	1A	Operates machinery to maintain maximum performance, observing safety precautions, in accordance with the manufacturer's operating instructions
	2. Changes in operational performance	2	Monitors any changes and adjusts in accordance with the vessel's safety management plan, and identifies likely causes including: heavy weather, reduced visibility, fishing, towing, breakdowns, low fuel, propeller and hull damage

Function: Manage Maintenance of Vessel Machinery and Systems

Competence	Knowledge, understanding and proficiency	Methods for demonstrating competence	Criteria for evaluating competence
Maintain propulsion and auxiliary machinery and systems		1: Practical 1A : On board 2: Knowledge	
Planned maintenance	1. Preventative maintenance and inspection of equipment	2.	Makes checks and records in accordance with the vessel's Maintenance Plan, the manufacturers' recommended guidelines and accepted best industry practice'
	2. Planned maintenance	1.	Carries out planned maintenance and inspection: • Oil change • Fuel filters • Bleeding air from fuel • Battery checks and top-up • Electrical switchboards, wiring, fuses and circuit breakers inspected • Replacement of drive belts
Maintenance and repairs on a vessel's mechanical and electrical systems	Select and prepare stores and spare parts	1A	Selects stores and spares for scheduled maintenance to mechanical and electrical systems in accordance with manufacturer's instructions

Scheduled maintenance	1. Scheduled maintenance tasks are performed	1A	• Tasks to include where possible: electrical systems: alternators or generators, batteries; navigation lights; switch boards, fuses and fuse links, circuit breakers, power points, switches and lights. • Also, mechanical systems: propulsion system (main engine, gearbox, shafting, stern tube and propeller), bilge system (pumps and motors, strainers, valves, piping); refrigeration plant; hydraulic system (pumps and motors, piping, control and other valves, filters, header tanks and piping); deck machinery (trawl winches, anchor windlass and anchors, deck cranes); steering systems (wheel, means of transmission from wheel to rudder, steering motor, rudder, emergency steering); fire pumps, valves and piping, hoses and nozzles
	2. Systems are tested.	1A	Tests systems prior to return to service in accordance with manufacturer's instructions
	3. Documentation	1A	Completes and files documentation in accordance with the vessel's safety management plan
	4. Handle materials safely	1A	Handles, stores and secures maintenance materials and equipment in accordance with vessel's safety management plan
Fault diagnosis	Diagnose faults in mechanical and electrical systems	2.	• Diagnoses faults including: mechanical systems – change in oil pressure, overheating, lack of fuel, discolouration of exhaust, uneven running, unusual noises, failure to operate, fault indicating light or alarm • Also electrical systems – failure to operate, fault indicating light or alarm
Unscheduled maintenance	Perform unscheduled maintenance tasks	2.	Performs unscheduled maintenance and repair tasks where possible to mechanical and electrical systems in accordance with manufacturer's instructions including: Identifies, removes, replaces and tests mechanical and electrical components requiring replacement Make repairs to mechanical systems to allow the vessel to continue to operate without causing further damage to the vessel and/or its engines and equipment Perform any improvised repairs to rectify component failures where replacement or full repair is not possible, to ensure continued safety of the vessel, its crew, and passengers in accordance with the vessel's safety management plan
Maintain outboard motor		2.	Cleaning, lubrication, greasing, electrics, winter storage
Bilge pumping systems	Operate bilge pumping equipment	1A	Operates equipment efficiently according to vessel operating procedures

Generators and fire fighting systems	Operation of auxiliary power generators and fire fighting systems	2	Explains equipment according to vessel operating procedures and manufacturer's guidelines