



Australian Government

Australian Maritime Safety Authority

# **SAMPLE SAFETY MANAGEMENT SYSTEM DOCUMENT**

**FOR A CLASS 3B OPERATION**

***A GUIDE TO ASSIST DCV OWNERS  
TO CREATE A SMS DOCUMENT FOR  
A CLASS 3B FISHING OPERATION***

## INTRODUCTION

### Legislation Framework

The *Marine Safety (Domestic Commercial Vessel) National Law Act 2012* (the Act) provides a single national framework for ensuring the safe operation, design, construction and equipping of domestic commercial vessels (DCVs).

The Act imposes safety obligations on owners and masters of DCVs to ‘*so far as is reasonably practicable*’ ensure the safety of their vessels, marine safety equipment that relates to the vessel and the operation of the vessel. DCV owners and masters must implement and maintain safety management systems on their vessels to comply with their statutory safety obligations.

The Australian Maritime Safety Authority (AMSA) as the National Regulator administers the Act and manages a framework for verifying the sufficiency of DCV safety management systems. Documented Safety Management Systems (SMS) are one way in which DCV owners can demonstrate that they comply with the safety management system requirements of the Act.

The Act gives effect to the National Standard for Commercial Vessels (NSCV), which establishes recognised standards for the design, construction, equipping, operation and crewing of DCVs. NSCV Part E identifies the minimum requirements for the safe operation of DCVs.

AMSA as the National Regulator has developed this Sample Safety Management System (SMS) to help DCV owners and operators meet their obligations under NSCV Part E and the Act.

### Introduction to Sample SMS

This sample SMS is an example of a documented safety system of a Class 3B operation.

DCVs and their operations within Australia are extremely diverse as are the circumstances and environments in which they operate. This means that safety systems for DCVs must be tailored to suit their unique commercial operations and account for any associated organisational and operational risks. This sample SMS has been developed to provide DCV owners and masters with a document that:

- May assist them to develop their own operational SMS or equivalent safety system that may be used to demonstrate compliance with the requirements of NSCV Part E and the Act.
- May assist them to review and as necessary revise a safety system they have already established to more closely align it with the requirements of NSCV Part E and the Act.

The use of the material in this document is not mandatory and is provided as examples that may be of assistance in developing an appropriate SMS document for a particular operation.

Wherever possible, DCV owners are encouraged to involve their vessel masters and crews in the development, evaluation and review of the DCV’s safety system whether they take the form of a documented SMS or an equivalent approach that satisfies NSCV Part E and their requirements under the Act.

## 1. Vessel information and contact details

VESSEL DETAILS							
<b>Vessel Name:</b>	<i>Neptune II</i>		<b>Unique Identifier No:</b>	XKM			
<b>Vessel Type:</b>	Cray Fishing Vessel		<b>Vessel Length:</b>	17.2 Metres			
<b>NSCV Service Category</b>	3B		<b>Vessel Beam</b>	4.6 Metres			
			<b>Vessel Draught</b>	2.5 Metres			
DESIGN & GENERAL LAYOUT							
<b>Main Engine</b>		<b>Auxiliary</b>		<b>Fire Detection and Protection</b>		<b>Decks</b>	
Single Screw Gardner 6LXB	94 kW	23 kW Kubota Genset & Hydraulics		Machinery Smothering	Space Fixed Fire	Single	
OPERATION SUMMARY							
Operating Area	Activity	Voyage Duration	Core Complement			Appropriate Crew	
			Master	Engineer	D/Hand	Certified	Uncertified
Offshore Waters	Cray	Approx. 12 hrs	Dual Qualified Master 5 / Skipper Grade 3		1	1 X Master 5 (Fishing) or equivalent	1 X Deckhand Uncertified
CONTACT DETAILS							
Vessel Owner:	Name	Address		Telephone	Email or Fax		
	John Citizen	13 Waterway Drive Portland Victoria 3305		03 5593 3444	j.citizen@gmail.com		
Designated Person:	John Citizen	As per above		As per above	As per above		

## 2. Risk Assessment

John Citizen, vessel owner master and designated person of the fishing vessel *Neptune II*, has conducted an assessment of risks associated with the vessel *Neptune II* and its commercial cray fishing operations in accordance with the requirements of Part E of the National Standard for Commercial Vessels (NSCV). Forms used by the company to assist with the identification, assessment and management of risks are attached at Appendix A.

All risks recorded in the register have been individually assessed and controlled and this process has been documented. The Risk Assessment includes an assessment of the appropriate crew for the vessel.

The risk assessment will be reviewed at least annually or as required through unscheduled reviews or as a result of any follow up on any hazardous occurrences or non-conformances. Any update to the risk assessment or SMS will be recorded on the revisions page (Appendix B).

### 3. Owners responsibility and authority statement

Vessel Owner	Contact Details
John Citizen	55 Seaview Av Portland Vic 3305 Ph. 03 55 271515 Mb 0457 752247 Email: jcitizen@westnet.com.au

John Citizen is the vessels owner and master. The owner is responsible for ensuring:

- The safety of the vessel and the marine safety equipment onboard
- The safe operation of the vessel
- Implementing and maintaining the vessel's SMS
- Maintaining the vessel as fit for purpose
- Instructing, training and supervising crew and persons onboard the vessel
- Ensuring the vessel stores and associated supplies are sufficient for intended voyages

### 4. Designated Person

John Citizen is the owner and Master of the vessel. John Citizen is also the Designated Person responsible for monitoring the safety and pollution prevention of the vessel and ensuring appropriate resources and support are provided to the vessel.

### 5. Master's responsibility and authority statement

John Citizen is the Master of the vessel *Neptune II*. The Master is responsible for implementing and complying with this SMS. The Master at all times has overarching responsibility and authority for the safety of the vessel and the crew.

The Master is responsible for the following:

- Command of the vessel and its safe operation.
- Implementing and complying with the SMS including:
- Delivery of crew training and induction
- Taking timely and reasonable measures to eliminate or effectively control any risk that is identified.
- Maintaining the vessel's logbook

### 6. Resources and Personnel

The training and induction program in relation to the vessel *Neptune II* is contained in Appendix C.

Mr John Citizen will provide all training and induction. All training, induction and drills will be recorded in Appendix D - Record of Induction Training and Drills.

The Crew list is located in appendix E which contains the contact details of each crew member.

#### Appropriate Crew

The appropriate crew determination forms part of the Risk Assessment in Appendix A.

## **7. Procedures for on-board operations**

The required procedures for onboard operations are identified as part of the Risk Assessment for the vessel's operations and are contained in Appendix F.

## **8. Emergency Preparedness**

The emergency response plans are identified through the risk assessment and contained in Appendix G.

## **9. Follow up on hazardous occurrences and non-conformances**

Any incident or non-conformance will be noted in the vessel's log. John Citizen will investigate each incident and note any corrective action taken to prevent re-occurrences. The SMS will be updated as appropriate and the correction noted in the SMS revisions page.

## **10. Maintenance of vessel and equipment**

The programmed inspection and maintenance for the vessel, its machinery and equipment is contained in Appendix H. All records of daily checks will be noted in the daily log and the inspection and maintenance log contained in Appendix I.

## **11. Log book**

A log book containing sheets in the form specified in Appendix J, shall be kept on board the vessel. The Master will record the following details in the log book:

- Details of all voyages undertaken
- Details of the crew on board for each voyage
- Details of any incident, accident or near miss
- Details of any unusual occurrences
- Any communication messages sent or received
- Details of any training undertaken by crew members
- Details of anything else considered necessary in the circumstances

The logbook shall remain on board the vessel at all times. All records shall be kept for a minimum of five years.

## **12. Verification, review and evaluation**

The revisions page for this SMS is contained in Appendix B.

John Citizen shall review this SMS annually. The review shall include a review of the risk register, all SMS documentation including all operational and emergency plans and procedures.

The results of the annual review shall also be recorded in the revisions page.

## APPENDIX A - RISK ASESMENT AND MANAGEMENT

### AMSA – IMPORTANT NOTICE

The following guidance material has been prepared to assist vessel owners, masters and crew to better understand the risk assessment and management provisions of NSCV Part E.

The intent is to present **sample** guidance material and **some** worked examples that explain and express important aspects of the risk management methodology in a user friendly manner based around a hypothetical vessel operation. The guidance material is not an exhaustive representation of matters that need to be considered for compliance with Schedule 2 of NSCV Part E and the Act.

Importantly, for any risk assessment and management process to be effective within the context of commercial vessel operations, it must be personalised to the vessel and its unique operation. Vessel owners have a responsibility to implement and maintain a safety management system that ensures that the vessel and the operations of the vessel are, so far as is reasonable practicable, safe. In addition Masters have a duty to implement and comply with a safety management system for the vessel and the operations of the vessel

The vessel owner has used the provisions of AS/NZS ISO 31000:2009 as guidance to establish the following tables to assist with the identification, assessment and control of risks associated with the vessel and its commercial operations.

### LIKELIHOOD

Category	Explanation
1. Remote	Never heard of but not impossible.
2. Rare	May occur in exceptional circumstances.
3. Unlikely	Uncommon, but has been known to occur.
4. Possible	May occur from time to time.
5. Likely	Will occur from time to time
6. Almost certain	It is expected to occur

## CONSEQUENCE

Category	Human injury	Financial cost	Work – income and reputation	Environment
1. <b>Insignificant</b>	No injuries	Negligible financial loss	No effect on work	Negligible environmental damage
2. <b>Minor</b>	First aid treatment — minor cuts bruises or bumps	Notable financial loss	Slight production/ achievement disruption	Minor environmental damage
3. <b>Moderate</b>	Disabling injury requires medical treatment	Significant financial loss — rescue of vessel required	Significant production/achievement disruption	Significant environmental damage
4. <b>Major</b>	Fatality	Extensive financial loss	Major disruption to operations	Major environmental damage
5. <b>Catastrophe</b>	Multiple fatalities	Loss of vessel	Operations halted/end of income	Extensive environmental damage

## LIKELIHOOD and CONSEQUENCE – RISK RATING Matriix

Likelihood	Consequences				
	Insignificant	Minor	Moderate	Major	Catastrophic
Almost Certain/frequent	High	High	Extreme	Extreme	Extreme
Likely	Medium	High	High	Extreme	Extreme
Possible	Low	Medium	High	Extreme	Extreme
Unlikely/very remote	Low	Low	Medium	High	Extreme
Rare/improbable	Low	Low	Medium	High	High

## RISK TREATMENT/CONTROL RATING

The vessel owner has applied the following methodology to assist with determinations regarding the sufficiency of its risk treatment and control measures:

Risk Treatment Method	Risk Treatment Rating
1. Eliminate hazard/risk	( E ) Effective
2. Isolate hazard/risk or apply re-engineer or re-design solution	( A ) Adequate
3. Introduce administrative solution – (Staff training, Personal Protective Equipment, Cautionary Signage)	( W ) Weak

## Risk Register & Appropriate Crewing Assessment

Risk	Likelihood (without controls)	Consequence (without controls)	Risk Rating	Controls	Control Effectiveness E = Effective A = Adequate W = Weak	Likelihood	Consequence	Risk Rating	Implement Controls
Engine failure	Unlikely	Moderate	Medium	<ul style="list-style-type: none"> <li>• Serviced as per manufacturer's guidelines</li> <li>• Maintained in good order</li> <li>• Daily service check</li> <li>• Qualified engineer on board</li> </ul>	Effective	Rare	Moderate	Medium	Yes
Fire	Unlikely	Catastrophic	Extreme	<ul style="list-style-type: none"> <li>• Machinery space detection and smothering system</li> <li>• Smoke Alarms</li> <li>• Smoking Policy</li> <li>• Daily visual checks of fuel/hydraulic pipes</li> <li>• Serviced fire fighting equipment</li> <li>• Emergency fire fighting procedures practised</li> </ul>	Effective	Unlikely	Moderate	Medium	Yes
Injury due to unguarded machinery	Possible	Major	High	<ul style="list-style-type: none"> <li>• Install machinery guard</li> <li>• Only qualified personnel in engine room</li> <li>• Training and Induction</li> <li>• Emergency Shut Off</li> </ul>	Effective	Unlikely	Moderate	Medium	Yes
Injury due to appendage being caught in line when shooting / hauling pots	Likely	Major	Extreme	<ul style="list-style-type: none"> <li>• Equipment training – induction &amp; annually</li> <li>• PPE to be worn</li> <li>• Long hair to be tied back</li> <li>• Guard on equipment installed</li> <li>• Equipment isolated when not in use</li> <li>• Knives carried / readily available</li> </ul>	Adequate	Possible	Moderate	High	Yes
Person overboard	Likely	Catastrophic	Extreme	<ul style="list-style-type: none"> <li>• Wear appropriate footwear and clothing</li> <li>• Harness to be worn</li> <li>• PFD to be worn with PLB</li> <li>• Monitoring weather</li> <li>• Boarding ladder fitted</li> <li>• Man overboard drill</li> </ul>	Adequate	Possible	Moderate	High	Yes



Risk	Likelihood (without controls)	Consequence (without controls)	Risk Rating	Controls	Control Effectiveness E = Effective A = Adequate W = Weak	Likelihood	Consequence	Risk Rating	Implement Controls
Grounding	Rare	Catastrophic	High	<ul style="list-style-type: none"> <li>Qualified and local knowledge</li> <li>Up to date navigation charts</li> <li>GPS Chart plotter / Echo sounder fitted</li> <li>Appoint watch keeper</li> <li>Fatigue Management</li> </ul>	Effective	Rare	Minor	Low	Yes
Medical Emergency Personal Injury	Possible	Moderate	High	<ul style="list-style-type: none"> <li>Qualified First Aider</li> <li>First Aid Kit</li> <li>SOPs</li> <li>Training and Induction</li> </ul>	Possible	Moderate	High	High	Yes
Vessel Flooding	Possible	Catastrophic	Extreme	<ul style="list-style-type: none"> <li>SOPs</li> <li>Bilge Pumps</li> <li>Vessel Inspection</li> <li>Lifesaving Equipment</li> <li>Surveyed Vessel</li> </ul>	Unlikely	Moderate	Medium	Medium	
Collision	Possible	Catastrophic	Extreme	<ul style="list-style-type: none"> <li>Qualified Master / watch keeper at all times</li> <li>AIS fitted</li> <li>Radar operational</li> <li>Maintain proper look out</li> <li>Anchor and 240v deck lights</li> </ul>	Yes	Rare	Moderate	Medium	Yes
Injury deploying / recovering stabilisers	Possible	Moderate	High	<ul style="list-style-type: none"> <li>SOPs</li> <li>Training &amp; Induction</li> <li>Bump Stops</li> <li>Recovery Hook</li> <li>Maintenance</li> </ul>	Yes	Unlikely	Moderate		

## Appropriate Crew Assessment

STEP 1 CONSIDER VESSEL CORE COMPLEMENT (as per NSCV Part E)			
	Master	Engineer	Deck Hand
Certified Crew	Skipper Grade 3 or Master Class 5 or Master <24 metres NC	Marine Engine Driver 3 NC	Nil
	1	1	
<b>ASSESSMENT</b>			
<p>The vessel is permitted under NSCV Part E to be dual certified which allows core compliment to be:  <b>Skipper Grade 3 / Master 5 (fishing) dual certified Marine engine Driver Grade 3 plus            1 Uncertificated deck hand.</b></p> <p>This crewing arrangement is considered adequate for the basic handling and operations of the vessel</p>			
STEP 2 - CONSIDER VESSEL DESIGN FACTORS			
General Layout Machinery/Equipment	Considerations		
Deck configuration	Single decked vessel, unmanned machinery space		
Number and location of passenger assembly stations	There is a primary and alternate passenger assembly station.		
Lifesaving Equipment Type/No	Access and Deployment		
Life Raft	4 Person RFD Life Raft (hydrostatic release on wheelhouse roof)		
Coastal Lifejackets	4 located in wheelhouse		
Life Buoys 2	Located on side of wheelhouse		
Fire Safety/Protection	Access and Deployment		
Fire Detection and Protection	Machinery space automatic fire detection and manually operated system. Provides for the timely detection and containment of a machinery space fire		
Fire Hose	Deck wash outside of wheelhouse, runs off engine driven pump remotely engaged		
Portable Fire Extinguishers	Various locations throughout the vessel		
<b>ASSESSMENT</b>			
All Lifesaving and firefighting equipment is readily accessible and able to be easily deployed or operated by 2 personnel. The machinery space is unmanned			
STEP 3 - CONSIDER VESSEL OPERATIONAL FACTORS			
The <i>Neptune II</i> operates generally within 15 nm of the Victorian coast. The voyages are generally up to 12 hours in duration. At the completion of fishing each day the vessel returns to the home port or other appropriate safe haven.			
Identified Risks	Mitigating Factors		
Fatigue Duration of voyage	Working hours are no longer than 12 hours duration with regular rest breaks as required		

Unexpected weather/sea changes	state	Skipper's local knowledge, access to internet weather, proximity of safe havens in all wind and sea states
Mechanical Breakdown		In the unlikely event of a mechanical failure the vessel will be anchored or hove to while repairs are undertaken, The deckhand is inducted into the operations of the vessel including safe lookout. The vessel operates in coastal area with low traffic density
Collision		Anchor watches in place, AIS, radar reflector, 240 volt anchor and deck lights, guard zone alarms
Cray Operations	Fishing	The skipper (navigation) and deckhand (fishing gear) are considered adequate for the fishing operations of the vessel

**ASSESSMENT**

The Skipper and Deckhand are considered adequate for the risks associated with the operational activities of the vessel.

**STEP 4 MARINE INCIDENT RESPONSE CAPABILITY**

INCIDENT TYPE		Crew Role	
		Navigation/Response	Response
FIRE	Engine	Skipper	Deckhand
	Other		
Collision		Skipper	Deckhand
Grounding		Skipper	Deckhand
Person Overboard		Skipper	Deckhand
Flooding		Skipper	Deckhand
Medical Emergency		Skipper	Deckhand
		Skipper	Deckhand

**STEP 4 FINAL EVALUATION (STEPS 1-4)**

The Dual Certified Skipper/Marine Engine Driver Grade 3 plus a properly inducted deckhand is considered appropriate for the operations of the vessel.

**FINAL APPROPRIATE CREWING ARRANGEMENT**

**Skipper: 1 X Skipper Grade 3**

**Deckhand: 1 X Uncertified**



## APPENDIX C - CREW INDUCTION & TRAINING & DRILLS

Any deckhand joining the vessel shall receive training in relation to the following.

Requirement	Item
<b>Vessel Overview</b>	<ul style="list-style-type: none"> <li>• SMS</li> <li>• General vessel layout</li> <li>• Location of EPIRB</li> <li>• Location and operation of Lifejackets</li> <li>• Location and operation of life rings</li> <li>• Location and deployment of life raft</li> <li>• Location of First Aid Kit</li> <li>• Operation of VHF, HF and Sat phone</li> <li>• Anchor location and procedure</li> <li>• Location of fire extinguishers / fire blanket and operation of smothering system</li> <li>• Smoking permitted area</li> <li>• Engine start up and shut down</li> <li>• Auxiliary start up and shut down</li> <li>• Electrical System Overview</li> <li>• Operation of GPS, MOB button and autopilot</li> <li>• Operation of helm and engine controls</li> <li>• Engine room induction</li> <li>• Operation of bilge pumping system</li> <li>• Operation of deck wash / fire hose</li> <li>• Location of fire buckets</li> <li>• Location of fuel shutoffs</li> <li>• Location of fire flaps</li> <li>• Pot winch start up and shut down</li> <li>• Location of gas shut off and detector</li> </ul>
<b>Issue of Equipment</b>	<ul style="list-style-type: none"> <li>• Issue and operation of inflatable PFD</li> <li>• Issue and use of personal locator beacon</li> <li>• Issue of sea dye marker</li> <li>• Issue of strobe light / mini flares</li> <li>• Issue and use of knife/lanyard</li> <li>• Issue of wet weather gear / ppe</li> </ul>

Drills shall be conducted as a minimum according to the following schedule:

Item	Frequency
Person overboard	On joining vessel and six monthly
Fire	Quarterly
Abandon Ship	Quarterly
Flooding	Quarterly





## APPENDIX F - STANDARD OPERATING PROCEDURES & POLICIES

### Policies

Smoking / Alcohol
Smoking is only permitted during breaks or when at anchor. All butts will be placed in a wet metal bucket and then disposed of in the garbage bin. No smoking is permitted in any enclosed spaces of the vessel. No alcohol is permitted to be consumed or brought on board.
Garbage / Pollution
All garbage is to be retained on board for discharge ashore

### Standard Operating Procedures

Refuelling
<ul style="list-style-type: none"><li>• Ensure vessel securely moored</li><li>• Shut down engines / auxiliary / radios radar and electrical</li><li>• Prepare deck fittings</li><li>• Ready spill material / extinguisher</li><li>• Check fuel tank breathers clear</li><li>• PPE</li><li>• Ground nozzle during filling</li><li>• Monitor filling</li><li>• Clean up any spills</li><li>• Re secure tanks caps and deck fitting</li><li>• Check bilges and tanks for leaks</li></ul>
Cray Pot launching
<ul style="list-style-type: none"><li>• Pots shall be baited in position on the deck prior to shooting</li><li>• Skipper and crew to be wearing inflatable PFD, PLB, emergency knife and have safety all personal safety equipment</li><li>• Secondary shear blade knife confirmed located in position on wheel house.</li><li>• Upon command from the skipper pot shall be rolled down to starboard side launch position</li><li>• Deckhand to ensure pot line is not fouled and no bights in pot line</li><li>• Deckhand awaits command of skipper to launch pot off tipper</li><li>• Deckhand to ensure limbs clear of any rope bight before launching pot</li><li>• Skipper/Deckhand to remain clear / monitor pot line while launching</li><li>• Skipper records pot position on plotter</li></ul>
Cray Pot Lifting
<ul style="list-style-type: none"><li>• Secondary shear blade knife confirmed located in position on wheel house.</li><li>• Skipper manoeuvres vessel up to pot</li><li>• Skipper secures pot tail end with throwing hook</li><li>• Pot float hauled on board and pot line placed on pot winch, pot float placed in bin</li><li>• Skipper / deckhand to monitor /stay clear of pot winch during hauling</li><li>• Deckhand to monitor progress of pot to surface and notify skipper when coming to surface</li></ul>



- As pot comes over tipper skipper stops winch
- Skipper takes line off pot winch
- Deckhand rolls pot to position adjacent to tank
- Deckhand clears pot, measures crays as appropriate and places in tank
- Deckhand rolls pot to position on deck, removes old bait and tidy's pot line

### **Fouled Pot**

**A fouled cray pot is a hazardous event. The cray pot line under strain has the ability to quickly take charge. Both skipper and deckhand need to remain vigilant and remain well clear of the pot line and floats that are under strain.**

In the case of a fouled pot, the skipper shall alert the deckhand, both skipper and deckhand shall remain well clear of pot winch and floats. The skipper shall provide deckhand with clear instructions throughout procedure. If pot remains fouled it shall be loosened off the pot winch and line returned to the sea as per shooting procedure. The emergency shear blade is in place should it be necessary in an emergency to cut the pot line free.

### **Anchoring**

The skipper shall provide a briefing to the deckhand prior to any anchoring operations. The deckhand shall advise the skipper of anything not understood.

- Skipper and deckhand shall wear inflatable PFD's
- Deckhand shall wear safety goggles
- When advised by the skipper the deckhand shall prepare the anchor for release, remove devils claw and await instructions from skipper
- Upon command from skipper deckhand will release gypsy brake and let chain/anchor release to required fathoms of chain
- The gypsy brake shall be re tightened
- Devils claw to be re-applied taking load from windlass.
- Skipper shall manoeuvre vessel astern as appropriate
- Skipper shall monitor vessel holding position
- Skipper shall activate vessel radar and gps anchor watch alarms

### **Extending and retrieval of stabilisers**

**Extending and retrieval of stabiliser arms has the potential to be a hazardous operation. The following procedure will be adopted at all times to minimise the risk of injury or damage to the vessel**

#### **Extension**

- Where possible stabiliser booms will be hauled outboard in port or in sheltered waters
- Before extension a visual inspection of stabiliser arms and para vanes will be made including recovery tackle
- The aft preventers shall be checked as being secured to the stern quarter cavels
- The retaining bolts to be slackened but not released
- The forward preventer wire ropes shall be unfastened from forward cavels
- Skipper and deckhand shall wear riggers gloves
- Prior to removal of retaining bolts skipper shall confirm which arm first and that deckhand is ready to haul arm outboard.
- When ready deckhand shall haul out arm and secure to forward bollard
- The stabiliser arm and paravane shall be lowered to prevent rolling
- Above procedure repeated for opposite side.
- Inspections made of preventers and recovery tackle

## **Recovery**

- Skipper shall confirm stabiliser to be recovered first.
- Skipper shall hold vessel head to wind/sea
- Upon command deckhand shall recover paravane from water and secure arm on boom lugs. Recovery lines to be coiled and secured
- Last arm deployed is first to be recovered
- Deckhand shall take confirm with skipper boom is ready to be recovered.
- Deckhand shall remove wire rope from bollard and take three turns of line around bollard
- Deckhand shall gradually release line around bollard in a controlled way
- When inboard skipper shall secure arm with line and hook
- Retaining bolts shall then be fastened
- Preventers tidied and secured to cavels
- Procedure repeated for opposite side

## APPENDIX G – EMERGENCY PLANS & PROCEDURES

### PERSON OVERBOARD PROCEDURE

#### Crew Member on-board

- If caught in pot line immediately attach line to pot winch and haul to surface and render first aid
- If person is free immediately:
  - ❖ Throw life ring
  - ❖ Hold MOB button on plotter 3 seconds
  - ❖ Manoeuvre vessel to keep person in sight
  - ❖ Deploy boarding ladder
  - ❖ Recover person from water
  - ❖ Render first aid as appropriate
- If person out of sight:
  - ❖ Manoeuvre vessel in search pattern taking into account wind /tide
  - ❖ Issue PAN PAN on VHF/HF
  - ❖ Consider use of EPIRB

#### Person Overboard

- Yell "MAN OVERBOARD"
- If caught in line use knife to cut free
- If free inflate PFD
- Release sea dye marker
- Continue to Yell – use whistle
- Use mini flares
- Activate PLB

### FIRE PROCEDURE

#### Engine Room

- Yell FIRE,
- Assess fire state
- Deactivate engine room fans
- Consider use of extinguisher in wheelhouse
- Activate deck wash / fire pump / use fire hose
- Activate bilge pumps
- Shut down aux genset
- Monitor situation
- Close fire flaps
- Close emergency fuel shut offs
- Activate Fixed Fire Smothering System
- Monitor Fire
- Issue PAN PAN on VHF/HF
- Escalate to Abandon Ship if necessary

#### Galley

- Yell "FIRE"
- Consider use of portable extinguisher / fire blanket in wheelhouse
- Turn off gas / appliances

- Escalate as necessary to supplementary fire extinguishers / deck wash - fire hose
- Escalate to abandon ship if necessary

#### **Accommodation**

- Yell FIRE
- Consider use of portable extinguisher in accommodation / wheelhouse
- Shut down aux /gen set
- Isolate any appliance
- Escalate as necessary to supplementary fire extinguishers / deck wash - fire hose
- Escalate to abandon ship if necessary

#### **MEDICAL EMERGENCY – PERSONAL INJURY**

- Render first aid
- Use First Aid Kit as appropriate
- Escalate as appropriate
- Issue PAN PAN on VHF / HF / Sat Phone
- Use Sat Phone to call for assistance seek advice as appropriate
- Provide vessel location from GPS plotter.
- Keep casualty stable

#### **HEAVY WEATHER / FLOODING**

- Don lifejackets and warm clothing
- Consider weather safe for pots to remain on deck
- If safe secure pots
- Secure rope bins and all lines
- Collect deck mats and securely lash
- Check anchor secure
- Check bilge / fire pumps
- Open fire pump suction to bilge
- Check scuppers clear
- Plot appropriate course to shelter / safest route
- Consider use of sea anchor
- Consider use of oil / hessian bag
- Activate fire pump suction to bilge
- Ready emergency grab bag
- Check life raft
- Use VHF/HF/Sat Phone to update Coast Radio with current location and course details

#### **GROUNDING**

- Account for crew
- Check bilges for signs of flooding
- Activate bilge pumps if required
- Open fire pump suction to bilge and activate pump
- Consider further damage control if necessary
- Escalate as appropriate
- Issue PAN PAN on VHF / HF / Sat Phone
- Escalate to Abandon Ship if necessary

## **COLLISION**

- Account for crew
- Check for injuries
- Render first aid as appropriate
- Check bilges for signs of flooding
- Activate bilge pumps if required
- Open fire pump suction to bilge and activate pump
- Consider further damage control if necessary
- Escalate as appropriate
- Issue PAN PAN on VHF / HF / Sat Phone
- Escalate to Abandon Ship if necessary

## **ABANDON SHIP**

- Account for all crew
- Don lifejackets and warm clothing
- Secure emergency grab bag (EPIRB, Portable VHF, knife, flares, rescue mirror, sea dye marker, compass, portable gps, Water, food, first aid)
- Issue Mayday on VHF / HF / Activate DSC
- Secure and activate EPIRB
- Launch Life Raft
- Abandon ship to life raft
- Check EPIRB activation

## APPENDIX H – CHECKS, INSPECTIONS & MAINTENANCE

VESSEL PRE-DEPARTURE / DAILY CHECKS				
	DESCRIPTION	STATUS		COMMENTS
		SAT	UNSAT	
<b>NAVIGATION and COMMUNICATION EQUIPMENT</b>	Radar			
	GPS			
	AIS			
	Compass			
	Helm			
	VHF Radio			
	HF Radio			
	Sat Phone			
	Hailer			
	Navigation Lights			
	Autopilot			
	Horn			
<b>WARNINGS / ALARMS</b>	Fire Detection			
	Main Engine Oil Pressure			
	Gear Box Oil Pressure			
	Main Engine Temperature			
	Alternator Charge			
	Aux Oil Pressure			
	Aux Temp			
<b>PROPULSION MACHINERY and ASSOCIATED SYSTEMS</b>	Gas detector alarm test			
	Main Engine Lube Oil			
	Aux Lube Oil			
	Gear Box Lube Oil			
	Cooling Header Tanks			
	Main and aux belts			
	Fuel Tanks			
	Fuel Capacity			
	Fuel Lines and Emergency Shut Off Valves, breathers			
	Exhaust			
	Gearbox Coupling			
Shaft Seal				

<b>PROPULSION MACHINERY and ASSOCIATED SYSTEMS (cont)</b>	<b>Keel cooling hoses</b>			
	<b>Batteries (Main, Emergency and Radio)</b>			
	<b>Hydraulic Header Tank</b>			
<b>STEERING GEAR</b>	<b>Hydraulic Lines and Fittings</b>			
	<b>Steering Rams and seals</b>			
	<b>Emergency Steering</b>			
	<b>Rudder Stock Bearings</b>			
<b>BILGE AND FIRE PUMPS</b>	<b>Bilge Pumps</b>			
	<b>Bilge High Water Alarm</b>			
	<b>Bilge Suction Valves</b>			
	<b>Bilge Strainers</b>			
	<b>Main Engine Driven Fire/Bilge Pump</b>			
	<b>Fire Pump / Deck Wash Sea Water Suction Valve</b>			

**PLANNED INSPECTION & MAINTENANCE 2014**

ITEM	Daily	Weekly	Monthly	Quarterly	6 month	Annual	Comments	Date / Initials
<b>Safety Equipment</b>								
Lifejackets stowage & signage	✓		✓					
Lifejacket lights	✓		✓					
Lifebuoy Lights & buoyant line			✓					
Life Raft & Hydrostatic release			✓				Hydrostatic release due 9/15	
Magnetic Compass	✓						Compass adjust due 2015	
Charts				✓			Monthly Check NTM	
AIDS (Radar, GPS, AIS)	✓							
Torches		✓						
Barometer		✓						
Clock		✓						
First Aid Kit		✓						
Navigation Lights	✓							
Radios/ Aerials	✓		✓				Daily HF/VHF check, monthly radio check HF transmit, monthly check of aerials	
Radio Battery		✓					Weekly check of terminals, battery and electrolyte	



ITEM	Daily	Weekly	Monthly	Quarterly	6 month	Annual	Comments	Date / Initials
Hailer	✓							
Horn			✓					
Day Shapes				✓				
Code Flags				✓				
Pyrotechnics & container		✓					Weekly check of container, Flares due to be replaced 03/15	
EPIRB		✓					Weekly Check, battery to be replaced 7/16	
<b>Anchoring &amp; mooring</b>								
Anchor, Chain and Shackles		✓						
Windlass inspect and grease	✓		✓			✓	Inspect full chain and shackles annually, Denso tape fittings annually, Check manual relief valve operation	
Devils Claw			✓				Inspect grease monthly	
Bollards/Cleats			✓					
Sea anchor			✓					
Mooring lines / fenders		✓						
<b>Machinery</b>								
Main Engine Oil & Filters (every 250 hours)							As per manufacturer	
Auxiliary Oil & Filters (every 250 hours)							As per manufacturer	

ITEM	Daily	Weekly	Monthly	Quarterly	6 month	Annual	Comments	Date / Initials
Main engine and Aux belts	✓					✓	Replace annually	
Fuel Tanks - Primary Filters (every 200 hours)	✓		✓				Visual daily, replace filters every 200 hours, drain water from tanks monthly. Fuel additive (Wynn's Enviro Treatment @ 1 litre per 2000 litres upon refuelling, inspection as per survey	
Engine Gearbox linkages	✓		✓				Daily visual, monthly inspection and grease	
Auxiliary – genset test, hydraulic pump inspection	✓						Daily genset test, services as above	
Hydraulic lines and fittings	✓		✓				Daily visual, monthly thorough inspection, annual Denso tape	
Engine room fans	✓						Daily operational check	
Sea suction valve and piping	✓						Daily Check	
Engine bilge inspection / clean			✓				Monthly inspection and replace oil sorbent sheets	
Engine guards	✓		✓				Daily visual, monthly inspection	
Exhaust lagging	✓						Daily visual, replaced maintained as required	
<b>Fuel System</b>								
Fuel tank filler/vents		✓					Weekly check	
Fuel lines	✓		✓				Daily visual, monthly inspection, annual Denso tape of fittings	
Remote fuel shut offs			✓				Monthly check and spray	

ITEM	Daily	Weekly	Monthly	Quarterly	6 month	Annual	Comments	Date / Initials
Fuel tank inspection (external)	✓						Daily visual, internal as per survey	
<b>Bilge System</b>								
Bilge pumps manual and power	✓	✓					Daily inspection, weekly test of operation and high water alarm	
Bilge piping		✓					Daily visual monthly inspection	
Bilge suction manifold valves			✓				Monthly inspection	
Non return valves					✓		6 monthly check	
<b>Stern Gear/Hull</b>								
Shaft Coupling and stern gland		✓					Stern tube re-packed annually	
Shaft Bearing						✓	Inspected tested annually	
Shaft						✓	Inspected annually, tested as per survey requirements	
Propeller						✓	Polished/inspected annually	
Rudder						✓	2 tear drop anodes replaced annually	
Rudder stock & bearings, pintles and bearing						✓	Daily test/inspection, annual inspection	
Emergency Steering				✓		✓	Emergency tiller checked quarterly	
Anodes Hull						✓	8 x 100 mm block anodes replaced annually along keel slipper, 2 x tear drop anodes replaced on keel cooling and sea suction strainer	

ITEM	Daily	Weekly	Monthly	Quarterly	6 month	Annual	Comments	Date / Initials
Antifoul – hull protection							Re-painted Annually	
Keel Cooling						✓	Cleaned & Inspected annually	
Sea suction valves	✓					✓	Daily visual, annual check of external/clean antifoul ext strainers	
Planking						✓	Inspection by shipwright annually	
Hull / Bulwarks / rails		✓					Weekly inspection, annual re-painting of hull topsides and bulwarks	
Deck	✓					✓	Cleaned daily – annual re-pain non skid	
Stabiliser, Arms and Gantry			✓			✓	Monthly inspection, grease of joints, annual protection and replacement of lines	
<b>Fire Protection</b>								
Fixed fire fighting system	✓					✓	Daily test, serviced annually	
Portable fire extinguishers (visual pressure gauge daily, shake dry chemical monthly, service all annually)		✓	✓			✓	(Visual pressure gauge daily, shake dry chem monthly, service annually)	
Fire pump and piping, hose and nozzle	✓						Tested daily as deck wash	
Smoke alarms		✓					Weekly test, battery replaced annually or as needed	
Fire blanket			✓				Checked monthly	

ITEM	Daily	Weekly	Monthly	Quarterly	6 month	Annual	Comments	Date / Initials
Fire Buckets			✓				Checked monthly	
Engine room fire flaps			✓				Checked monthly	
<b>Electrical System</b>								
Wiring	✓			✓			Daily general visual, annual mega 240 v, monthly thorough inspection of wiring	
Switches							Daily general visual, annual mega 240 v, monthly thorough inspection	
Distribution boards							Daily general visual, annual mega 240 v, monthly thorough inspection	
Genset	✓			✓			Daily Test – quarterly inspection of alternator	
Lighting			✓				Monthly test of all 240 and 12 volt lights	
Batteries / boxes, terminals, electrolyte levels, and cables	✓					✓	Daily visual, annual internal inspection	
Shore power	✓						Daily	
RCD test		✓					Tested weekly	
240 V charger (test)			✓					
VHF Radio				✓				
Satellite Navigation/GPS				✓				



## APPENDIX J – SAMPLE LOG SHEET

<b>DAILY LOG – <i>Neptune II – XKM</i></b>		<b>DATE:</b>
		<b>WIND DIRECTION:</b>
		<b>WIND SPEED</b>
		<b>SEA STATE</b>
<b>Departure place:</b>	<b>Date / Time</b>	<b>TIDE TIMES:</b>
<b>Arrival place:</b>	<b>Date / Time</b>	<b>BAROMETER:</b>
<b>Running Sheet / Notes:</b>		<b>WEATHER FORECAST:</b>
		<b>ENGINE TEMPS AND PRESSURES:</b>

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