

Southern Rock Lobster Clean Green Program

Introduction & Training

Clean Green 'Fishing Ops App'

&

Fishing for Safety Video

Presenters: Ross Hodge and Justin Phillips

www.southernrocklobster.com



Clean Green Program, Revision, Digitisation & Extension Across the Supply Chain - Background

Project: ***Southern Rock Lobster Clean Green Program - Revision, Digitisation & Extension Across the Supply Chain***

- Project funded by FRDC under the SRL / IPA.
- Aim: to adapt the **Clean Green** Program (CGP) to a digitised application (**app**) format managed through a backend web-based portal (initially iOS focused, android is possible).
- Another key project output was to produce a video conveying the vessel & personal safety message that is core to the CGP

Title of that video is, '**Fishing for Safety**' and can be accessed anytime via the app – you also get to view it as part of this Training Package.



Clean Green On-Line E-Learning Program

This Training Program – Two Parts

What's it about?

<u>First Presentation:</u>

- **For existing CGP participants getting operational with the Fishing Operations Manual app. You get to exit this On-Line program at the Down Load Guidance Material Stage**
- **For new entrants; important exposure to all of this i.e. soak it all in.**

<u>Second Presentation :</u>

- **Required for new entrants only to the CGP - cover off on the Broader aspects of the Clean Green program - how to comply**



Clean Green Program, Revision, Digitisation & Extension Across the Supply Chain

Why CGP in a digitised Application Format?

- Improve useability / functionality for CGP Members (prefill repeat fields etc)
- Streamline the audit & CAR process - virtual audits! Also reduce audit process cost
- Generate useable info & data for users (fuel use, oil / maintenance requirements etc)
- Generate useable data for regulators & seek further accreditation / recognition.
- Improved transferability / adaptability to other sectors.
- Improve CGP administration - digital communications e.g. audit scheduling, invoicing & financial control, content upgrades & revisions as regulators continually change requirements. Paper-based is no longer sustainable (printing, mail-outs, version control, face-to-face updates etc) – **time to adapt 21st Century Technology**
- Improved training experiences - initial training and refresher CGP training.
- Improved version control amongst Members and non-Members.
- Extend the program to the Post-Harvest sector.



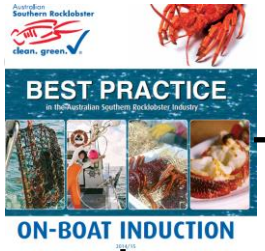
Clean Green Program, Revision, Digitisation & Extension Across the Supply Chain

Project Outputs:

- Revised Program Standard - 2 parts; Catching and Post-Harvest.
- A Clean Green ‘Catching’ App (full revision of content)
- A Clean Green ‘Post-Harvest’ App - based on UTas / Quinn Fitzgibbon’s Work - Post-Harvest ‘Best Practice Guide’, including capacity to record Management of Water Quality & Lobster Quality Impacts.
- A Clean Green ‘Auditors’ App (only for use by independent auditor)
- A web-based ‘backend’ - program management. Accessed by the Clean Green Program Manager (full access e.g. new content development, AV and written communication with members, invoicing etc) and also the Independent Auditor (limited access related to the audit functions).
- A ‘data-warehouse’, cloud-based, to receive and house collected data.
- Fishing for Safety video & fully revised training materials (catching & post-harvest)



Digitising Clean Green: Picture Worth A Thousand Words!

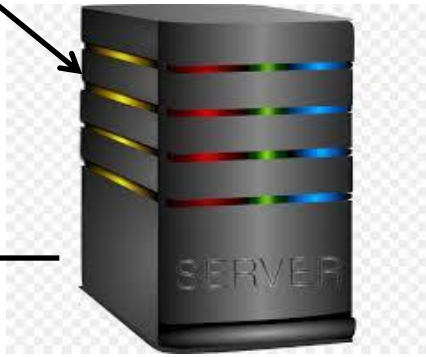


Transfer - Paper to iPad



Required information / details / dates (data) recorded on iPad by vessel Skipper

Data transferred from iPad to Web Portal / SRL Management



CLEAN GREEN
Fishing Operations
LOGBOOK

Independent Auditor



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CGP Management and Audits



Key Changes

- Title: On-Boat Induction Manual – now **Fishing Operations Manual** app
- No longer includes a Sustainability aspect (managed / controlled by Fisheries Depts / Management Plans) and increased controls over Environmental requirements / interactions of fishing operations. Now just ‘responsible fishing’.
- Flips Cards Now have Checklist to complete
- Combined Cleaning, Sanitation & Waste Management into one section and introduced a checklist on the ‘Storage and Disposal of Garbage’
- Have revised the WH&S Standard (Part 7) to include changes / amendments to legislative requirements, including definitions and Small Business Fair Dismissal Code – No input content required just a lot of background on the legislative requirements for operating a safe and compliant business operation
- Vessel Safety Management System (SMS – Part 9) amended to align with NSCV and MO405 (replacement of NSCV – Part E Operations)
- Logbook (Part 12) broadened to include & record any lists requiring repetitive entries over a fishing season e.g. Monthly Records, Inducting New Crew



Clean Green Program, Revision, Digitisation & Extension Across the Supply Chain – Using 21st Century Technology

- No Paperwork required - every time need to update part of the program / app will happen in the back end and you will received notification of what's changed and any action that is required.
- CGP Program Administrator and Auditor can review who has / has not completed all the sections and who has / has not been completing the Logbook.
- Real potential in the future to conduct Facetime Audits with the Independent Auditor – this will be a considerable saving to managing the program.
- App includes access to:
    a. The Clean Green Standard – overarching document that establishes the requirements of the CGP (Fishing Operations) including auditing.
    b. A copy of the Auditors Checklist
- Trial of Water Quality Monitoring Equipment re Part 5 GMP
- Extension across the Supply Chain? – Revised Post Harvest Component of Standard – App for Managing Water Quality & Stock Control – Best Practice Guide for Post Harvest Holding / Processor Operations, based on U-TAS / IMAS Project



Fishing for Safety

Previously, all CGP training workshops utilised a video produced by WAFIC back in the early 90's titled: ***Occupational Health & Safety for the Professional Fishing Industry.***

Using the old WAFIC production as a starting point, a new script was prepared in close collaboration with AMSA and Millstream Productions.

Script is based on AMSA's Safety Management System (SMS) Guidelines and it also addresses general Work, Health and Safety (WH&S) requirements relevant to the industry.

Predominately filmed on Southern Rock Lobster vessels in SA's South East; at Robe, Beachport & Southend, **Fishing for Safety** also includes stories & experiences from across other fisheries.



Fishing for Safety

Suitable training / crew induction video for most fisheries - easy to stop / start for discussing and reinforcing key points during training / induction.

Lots of information conveyed in just over 16 minutes through use of **info-graphics** i.e. ‘slick’ pictures and diagrams replace what otherwise would require many spoken words.

Fishing for Safety can be accessed via the app and can also be downloaded from;

- **www.southernrocklobster.com**
- **www.millstreamproductions.com.au/our-work**



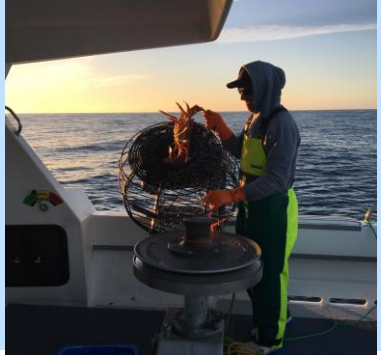
Safe Vessel Operations SMS and WH&S – Your Responsibilities

There are two government agencies that cover fishing vessels:

- Marine Vessel Safety – Australian Maritime Safety Authority (AMSA)
- Workplace Safety (WH&S) – State WorkSafe Authorities

Under the NSCV AMSA requires a vessel to have a documented SMS that addresses all the hazards to ensure the safe operations of a vessel and the crew i.e. safe for vessel and crew to go to sea and return to port

WH&S – drills down on the actual tasks of fishing operations and associated hazards, e.g. handling knives, use of winches, pot tippers, manual handling & lifting, working in confined spaces.



Safe Vessel Operations SMS and WH&S – Your Responsibilities

Clean Green (& other SMS's) provide a means to achieve an outcome in managing the risks associated with identified hazards on your vessel. But you need to have **completed all the detail** and **understand the content** of what's in your vessel's SMS to be compliant. This includes **annual drills and reviews** of the documented safety procedures for your Vessel.

Part 7 WH&S Standard in the Fishing Operations Standard outlines what the legislative responsibilities are for what is referred in WH&S legislation to 'a person conducting a business or undertaking' (PCBU).

Ensure your SMS and associated responsibilities (vessel documentation, crew training & inductions) are completed and you are across the content.

Its Your Responsibility to be Compliant



Water Quality Monitoring Systems (WQMS)

The core requirement to producing *"The World's Finest Rock Lobster"* is a premium, safe, live & healthy product i.e. maintaining the condition the lobster is in at the point of harvest.

While most lobster fishing vessels operate with the appropriate holding tanks / wells supported with water circulating systems, the actual condition / quality of the water can change due to external factors without the vessel operator being aware.

The next 4 slides provide some insight into what are the optimum quality requirements for managing and holding live lobsters on vessels and some considerations for how to monitor water quality instead of just taking it for granted that its all OK.

WQMS Recommendations

Water Quality Monitoring Systems (WQMS) – Why?

- CG Standard establishes requirements for Food Safety & Quality (i.e. GMP) – Referenced in **Part 5** of the App
- Currently Vessel stock carrying capacity (tanks / well) are assessed i.e. volume by water flow – what about the actual **water quality**?
- App Part 5 GMP references water quality specifications in the section *Standard for Handling, Transport and Holding* (Updated with recommendations for use of equipment to monitor Water Quality) at:
  - temperature 8°C - 14°C – optimum 10-12°C;
  - oxygen concentration greater than 70%;
  - salinity between 30 and 38 parts per thousand (ppt) – optimum (35-36ppt)

Please Note: the water quality specifications referenced in the CG Standard & App are only *recommendations* at present. There is no current *requirement* for CG participants to monitor these parameters. This information has only be included for your consideration / information.

WQMS Recommendations

- Project included work to review and recommend options for water quality monitoring technology that could be suitable to use on Rock Lobster fishing vessels.
- Interesting exercise – no technology developed specifically for lobster vessels – but equipment available that can measure water quality in the fields i.e. Temperature, Dissolved Oxygen (DO) & Salinity within the parameters of the specifications (optimum range) recommended in the App Part 5 GMP noted on the previous slide.
- Needed to look at what was available for closed circulation systems in the Aquaculture industry to find options worth considering.

Desktop review narrowed down options - ruled out handheld technology – decided on equipment that constantly monitors water quality in the required fields and can:

- Provide constant real time information i.e. readable display of tank performance
- Provide an audible alarm when optimum range of the fields (high / low) is broken
- Store the monitoring data so it can be downloaded and analysed – also play a role in future total supply chain management of "*The World's Finest Rock Lobster*"

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WQMS Recommendations Suitable Technology

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Following a review of water sensing equipment supplied by HACH, HOBO, Endress + Hauser, Sedna and Senect, it was decided that the **Senect Two** provided the most suitable WQMS including price, flexible power supply 24V DC or 240V AC and with a mounted constant display controller / monitor.

Below are images of the Controller / Monitor that would be installed in a Wheelhouse with audible alarm and the sensing probes (supplied with cabling) that require mounting in the holding tank / well. Costing around $4,500 for the full assembly – the **Senect 2** is supplied by:







aquaFUTURE Australia

Contact: Adrian McIntyre

0417 666 311

adrian@aquafuture.com.au

www.aquafuture.com.au

Note: Probe on left measures both DO and Temperature

WQMS Recommendations Suitable Technology

The project was able to procure several Senect Two systems and trial them on a vessel and in a the tanks of a processor / export facility.

One other interesting WQMS product that has come onto the market more recently is the **SEDNA Aquaorb**. Rather than cables it uses **Wireless / Bluetooth** technology from the (bulb like) sensing device in the holding tank to an iPad / iPhone which collects and stores the data. While the upside of the SEDNA technology is no cabling from sensors to the controller / monitor, it doesn't currently measure salinity, purchase / set up costs are currently around $13,000 and no audible alarm for when the fields being monitored move out of the optimum ranges. It is evolving technology worth following.

The included images demonstrate the SENDA Aquaorb technology

Supplied by: Freshbydesign
Lachlan Bassett – 0421 992 699
lachlan@freshbydesign.com.au
www.freshbydesign.com.au







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Clean Green Program, Revision, Digitisation & Extension Across the Supply Chain – Support Material

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SRL Clean Green Time for 21st Century Technology



Guidance Material

In addition to the information provided in this presentation the next stage after watching the Fishing for Safety video will provide access to downloading guidance material setting up and navigating your way through the digitised app CGP (& Logbook).

Vessel Stickers

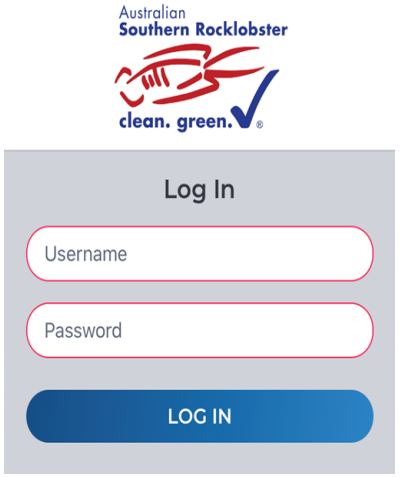
Compliance requirements of Clean Green is for vessels to display stickers for: Safety Guidelines, Hearing Protection, Managing Garbage, Accessing Restricted Areas, Safe Winching Operations and the Clean Green Vessel decal.

A full set of stickers for new entrants or replacement stickers for existing participants can be supplied by the CGP Manager / SRL EO Tom Cosentino (contact details next slide)



Download Digitised App to your i-Pad

Time to get started and download the app onto your i-Pad:



Note: Password can be changed any time by contacting the CGP Manager / SRL EO Tom Cosentino at tom@margoconsulting.com.au – Tom grants access to the program participation via the backend management portal. Choose to drop out of the CGP and access withdrawn. This overcomes previous concern of program members leaving the program as soon as they received updated material (Manual & Logbook) and then claiming Clean Green SMS compliance when in fact they weren't. Managing access ensures a level of Quality Assurance with the new digitised app version.

Get Started with the App

Presentation Finished

You have now completed the required introductory program and to progress to the next stage and watch the ***Fishing for Safety*** Video. After the video you can then access the instructional material that will lead you through setting up and using each part of the app.

Suggest that you start with thoroughly reading the instructional material and then using it to systematically guide you through setting up the app and then making it part of it operational for your vessel / fishing operations.

Support with setting up or using the app can be provided by contacting Ross Hodge on 0423 533 133 or rosshodge@southernrocklobster.com