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2021 SA Sardine Industry

Waste Water Management Code of Practice

South Australian Sardine Industry Association Inc.

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Introduction

This Code of Practice (the Code) is an Environmental Initiative of the South Australian Sardine Industry Association (SASIA). The primary aim of the Code is to eliminate or, wherever possible, reduce discharge of discolored deck-hold wastewater at commercial wharfs. This code has been implemented as an aid in minimizing any potential environmental impact that may be caused through daily operating procedures associated with the SA Sardine Industry

Background

In South Australia, the harvest of local Sardines is a key element to the viability of Southern Bluefin Tuna (SBT) ranching operations.

Sardines are harvested at night and stored in refrigerated seawater until they are unloaded to waiting SBT ranches. This occurs on most days from around February to August.

It is normal for the refrigerated deck-hold seawater to become tainted with scales and fluids from the Sardines which is usually discolored when returned to the sea.

In most cases, the bulk of the Sardines are unloaded at farm site, directly to the waiting feed vessels. Farm sites are generally over 3 nautical miles offshore or more.

There are times that vessels need to offload or adjacent commercial wharves for transport to factories and processing or freezing for use when daily catches are not available. This includes processing into value added products including pet food and human consumption.

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Objectives of the Code of Practice (CoP)

"The vessel management practices set out in this CoP provide a responsible approach to environmental management while ensuring that Sardine fishing will continue to be economically and environmentally acceptable in South Australia" (SASIA)

- A CoP does not replace the need for skippers to comply with all necessary approvals or current legislation and licenses.
- It is the intention of this CoP to cover general unloading procedures for operators in the SA Sardine Industry and is associated with ***all*** South Australian bays and waterways.
- An approved CoP is *not* an *additional* regulation under any regulatory authorities.
- While non-compliance with **this** CoP is not an offence, fishers are still required by law to ensure that their operations comply with the *Environment Protection Act 1993* (the Act) and relevant Environment Protection Policies including the Environment Protection Water Quality Policy 2015.
- If it is deemed that all practical and reasonable steps to comply with the Act have not been taken, an EPA Authorized Officer may issue an expiation or Environment Protection Order (EPO) or other compliance mechanisms.
- Failure to comply with an EPO can lead to prosecution.
- Vessels that comply with this CoP can be confident that they are acting responsibly and making best attempts to satisfy the general obligations of the Act.
- The CoP provides a framework to assist the Sardine Fishery in demonstrating that they have taken all reasonable and practicable measures to comply with the discharge requirements specified in the Water Quality Policy and meets their general environmental duty.
- Compliance with this CoP is not only likely to reduce the potential environmental impacts of Sardine offloading operations but will improve the public perception of the Sardine Industry and strengthen the Industry's social license to operate.

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Brine Water Quality and Discharge Requirements

Discharge of refrigerated used brine water has the potential to create changes to the quality of the receiving waters and habitat adjacent commercial wharves.

- The Water Quality Policy states that when discharging wastewater, skippers must take all reasonable and practicable measures to prevent or minimize the potential of environmental harm.

To demonstrate general environmental duty when unloading, skippers must:

- Adopt the principles of the waste management priorities which states that skippers must make all attempts to avoid, minimize, reuse, recycle, recover, and only dispose of wastewater after these other options have been considered.

- Aim to comply or have regard to the requirements specified in this CoP

The Water Quality Policy states that commercial fishing wastewater may be discharged from a vessel into marine waters other than prescribed waters, provided it is not discharged into:

1. **Waters within a harbor, a marina or canal; or**
2. **Waters within 3 nautical miles from any person in the waters,**

Note: The EPA needs to be satisfied that all reasonable and practical measures are being made to treat and or retain as much wastewater as possible when discharge at commercial wharves needs to occur.

Environment Protection Authority (EPA)

The regulatory body regarding potential pollution to the Marine Environment is the South Australian EPA

The EPA need to be satisfied that all reasonable and practicable efforts are being made by the skipper by meeting the requirements of this Code and to retain as much wastewater as possible before discharging at or adjacent commercial wharves.

It is the EPA's discretion during any inspection to determine whether these requirements have been met and the skipper is in compliance with the Water Quality Policy.

Operational limitations

There are several constrains which a vessel may impact or restrict and limit the ability to retain all wastewater.

The procedure outlined below coupled with the vessel specific wastewater unload plan will help make best practical and reasonable attempts to remedy these situations.

These constraints include:

- Tank space, and the presence or absence of dedicated wastewater holds
- Chilling capacities
- Operational hours
- Weather
- Vessel stability
- Tonnage being unloaded

The vessel should retain where possible, approximately 10% of its water in order to operate the vacuum pumps; whilst the remainder must be drained until enough space has been created in order to retain wastewater (in the absence of a wastewater specific tank).

Generally, the larger the volume of water on the vessel the better water quality will be due to a lower product density in the holds. Situations where vessels can retain wastewater (when no specific hold is designated) consist of:

- Vessels with larger number of tanks which can more easily create space for wastewater
- Have less catch on board by comparison to available brine space.
- Operating times AND chiller capacity will allow for the disposal of wastewater at sea without interfering with operations (i.e. fishing consecutive nights).
- The guidelines on the following page will help guide a skipper or registered master/responsible persons on how to correctly assess the best solutions available as a means of minimizing discharge of deck-hold water at wharves.

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General vessel operational standards

During unloading operations skippers must take *all* reasonable and practicable measures to ensure discharge of contaminated deck-hold water into the surrounding waters at or adjacent to commercial wharves is minimized by:

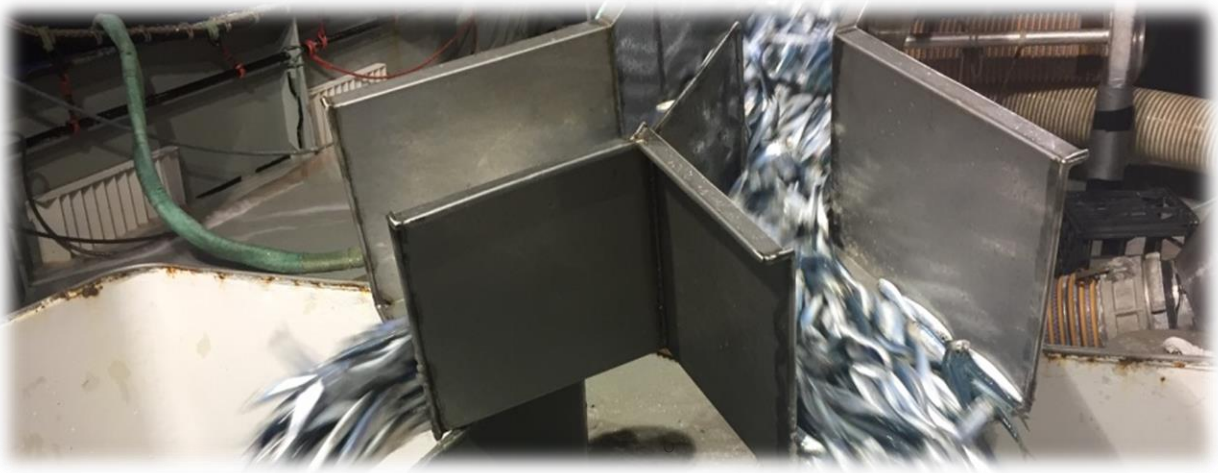
- Developing a vessel specific wastewater management plan with vessel-specific protocols.
- Diverting brine water back to vessel from de-waterer and retaining as much as possible.
- Ensuring that all unloading hoses and pumping/return lines are maintained in good condition and checked for major leaks.
- Discharging the minimum amount of brine water (**preferably sub-surface**) to create sufficient tank space for retrieval thereafter.
- Washing down adjacent wharf areas thoroughly with clean seawater after offloading

Prior to fishing the skipper should:

- Ensure that all brine tanks are clean and filled-to-capacity prior to chilling and introduction of product to below 0 degrees Celsius when possible.

During fishing operations skippers should:

- Utilize all available tank space where possible and distribute product evenly.
- Ensure efficient landing/pumping and effective use of de-waterer.
- Where possible, keep “crowding” of tanks to a minimum.
- Maintain tanks at sub - zero temperatures, where possible, to ensure better water and product quality



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Continuous Review and Improvement

- This CoP is a living document and may be reviewed by the South Australian Sardine Industry Association on a regular basis to reflect the adaptive management of the industry.
- SASIA will utilize all available information from Industry, the public, and from the EPA to identify potential refinements to the CoP.
- SASIA license holders are in full support of this code and will ensure that any vessel specific water practices will be adhered to.
- Review of this CoP is the responsibility of the industry, which should be conducted after consultation with the EPA, PIRSA, and relevant stakeholders.

Implementation of the Code of Practice: What will Industry Do?

- **Implement the CoP through license holders in the fishery adopting the practices.**
- **Alert and advise skippers to the code.**
- **Discuss and re-enforce at regular skipper's and Industry port meetings.**
- **Communicate regularly with the Environmental Protection Authority (EPA)**
- **Report any major incidents to EPA.**
- **Participate in a process of continuous review and improvement.**

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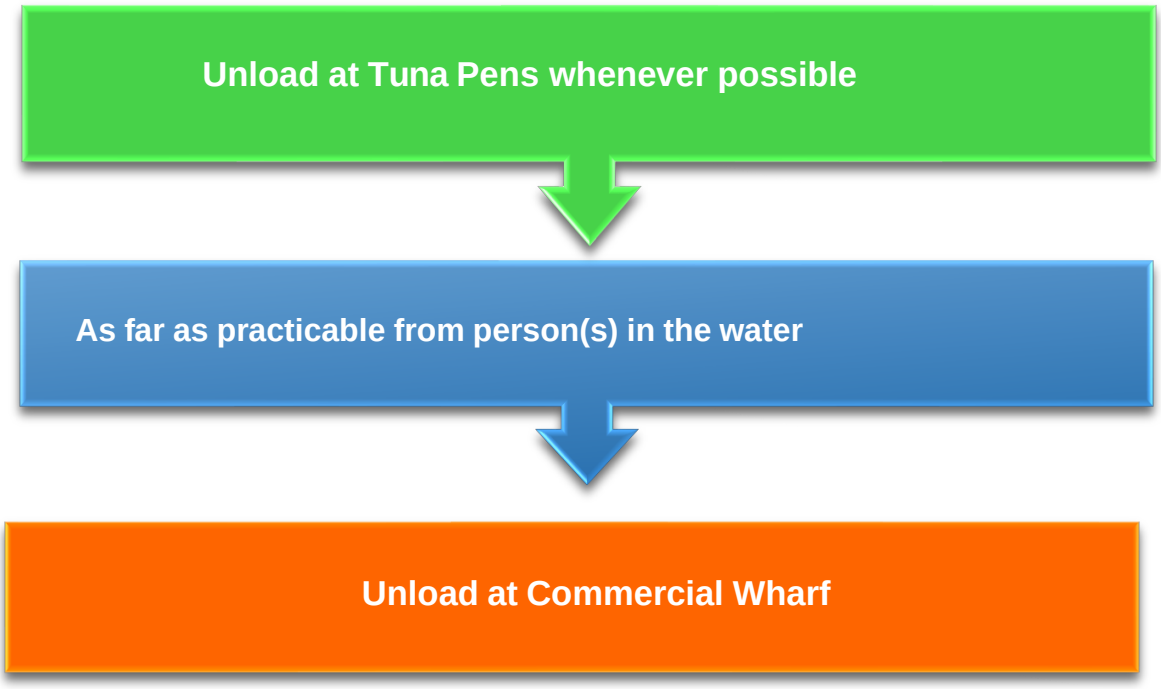
Unloading priorities

The below diagram illustrates the most preferred to least preferred option for discharging deck-hold water. Regardless of discharge location, vessels must aim to minimize all environmental impact

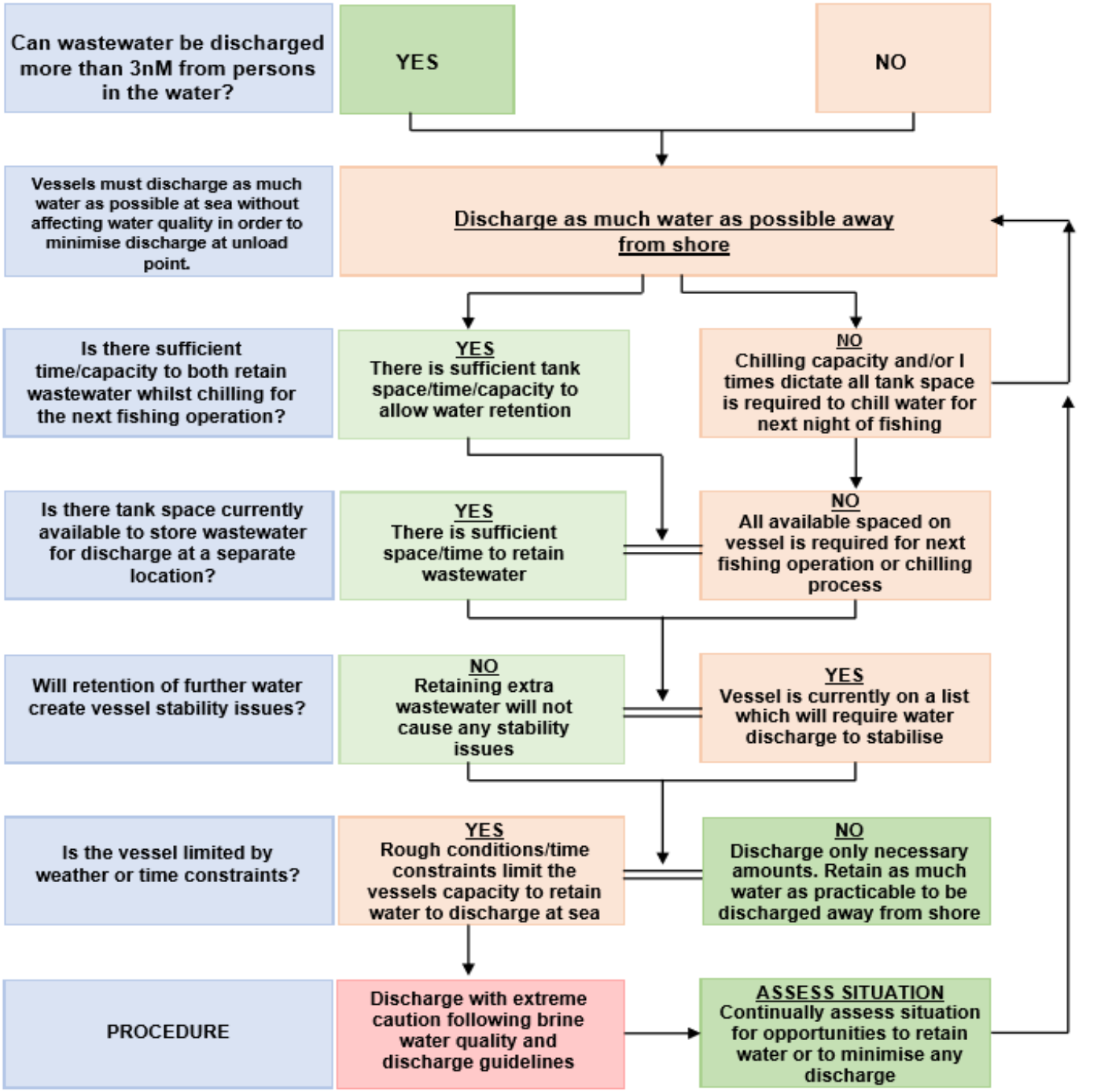


Summary:

- **Vessels must attempt to reduce or eliminate discharge of wastewater at or adjacent to commercial wharves at all times.**
- **If at any time it becomes practicable to unload at a preferred location (as per table) then the skipper must aim to adhere to the operational standards outlined in this code.**
- **At all times, the vessel should aim to retain as much water as possible to discharge outside of 3nM.**
- **In the event of an un-anticipated discharge a log of the event should be documented in the Incident register at the back of this document.**

Example of Vessel Specific Water Discharge Procedure

At all times vessels must retain as much wastewater as reasonable and practicable. Furthermore, if it is deemed necessary to the operation to discharge wastewater, then skippers must strive to discharge wastewater at the preferred location on the wastewater discharge location hierarchy flowchart (page 4). If at any time, it becomes feasible to discharge at a preferred location, then it is a skipper's duty to ensure that the more preferred option is used. If at any stage an unload procedure is deemed unsafe, or damaging, then all activities that cause a loss of wastewater must be ceased until it is safe to proceed.



Note: During any activities, which may result in the discard of wastewater the skipper must, regardless of location, follow the brine water quality and discharge requirements outline on page two of this code of practice.

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Incident register

Vessel	Date	Description of discharge and Location	Est volume