Overview of proposed amendments to

Part 24: Diving, Fishing and Other Marine Operations
Section 24.93, Requirements for sensors and alarms
Section 24.104, Drums
Section 24.106, Work areas

The proposed amendment to section 24.93 is to add a requirement for the installation of marine grade carbon monoxide sensors in the crew quarters of a fishing vessel to provide a warning in the event of elevated carbon monoxide levels. Overexposure to carbon monoxide can affect a worker's cognitive function and lead to unsafe worker behaviour, or could result in the death of a sleeping worker.

The proposed amendment to section 24.104 (a) is to insert the words "the net" for clarity, and to be consistent with the wording proposed in new section 24.106 (2).

The proposed addition to section 24.106 will require appropriate safeguarding for drum operations on herring gillnet vessels to address the hazard of a worker caught by the net or lines being pulled over the beater drum and into the net drum.

PART 24: DIVING, FISHING AND OTHER MARINE OPERATIONS

FISHING OPERATIONS

GENERAL REQUIREMENTS

Requirements for sensors and alarms

24.93 (1) An owner of a fishing vessel must ensure that a heat sensor, connected to an alarm system, is installed

(a) above the galley stove or near the stove pipe, and
(b) in proximity to the engine exhaust.

(2) The owner must ensure that a water level sensor, connected to an alarm system, is installed

(a) in the machinery space bilges, and
(b) in the shaft log or lazarette.

(3) The owner must ensure that main engines are fitted with low oil pressure and high temperature sensors connected to an alarm system.

(4) The owner must ensure that a sensor and alarm system is installed if the Board considers this necessary to detect leaks of potentially explosive fuel used in engines or appliances.

(5) The owner must ensure that an audible marine grade carbon monoxide sensor, connected to an alarm system where practicable, is installed in crew quarters.

Explanatory Note

Section 24.93 of the Occupational Health and Safety Regulation requires that fishing vessels must have sensors and alarm systems to monitor a variety of possible dangers such as galley stove and engine exhaust overheating, high water levels in machinery space bilges and lazarettes, low oil pressure or high temperatures related to the main vessel engine, and, if required by the Board, to detect leaks of potentially explosive fuel used in engines or appliances.

Workers on fishing vessels are also subject to a risk of overexposure to carbon monoxide. Such overexposure can affect a worker's cognitive function and lead to unsafe worker behaviour or could result in the death of a sleeping worker. Accordingly, it is proposed that new subsection 24.93(5) be added, requiring the owner of a fishing vessel to install a marine grade carbon monoxide sensor in crew quarters to provide a warning in the event of elevated carbon monoxide levels.

PART 24: DIVING, FISHING AND OTHER MARINE OPERATIONS

REQUIREMENTS FOR SPECIFIC FISHING OPERATIONS

GILLNETTING

Salmon

Drums **24.104** The owner of a gillnet vessel must ensure that drums are fitted with

(a) an effective ratchet device for picking up **the net** under heavy strain,
(b) an effective brake to maintain control when setting out the net, and
(c) a hold-to-run control.

Pin rollers **24.105** (1) The owner must ensure that pin rollers are of a design to prevent their inadvertent lifting.

(2) The master must ensure that pin rollers are maintained to prevent their inadvertent lifting.

Herring

~~**Work areas**~~ **Work areas and safeguarding** **24.106** (1) Work areas on herring skiffs and punts must be arranged to prevent contact with moving equipment such as beaters and live rollers.

(2) The owner of a herring gillnet vessel must ensure that drums are fitted with

(a) an effective ratchet device for picking up the net under heavy strain and an effective brake to maintain control when setting out the net, and

(b) a hold-to-run control or other equally effective safeguard to stop the drums if a worker becomes entangled in the net or lines being wound in by the drum.

Explanatory Note

Salmon gillnetting vessels have for many years used a bow-type net retrieval system whereby a drum, mounted in the stern of the vessel, is operated to set and retrieve the gillnet. The *Occupational Health and Safety Regulation* ("*OHSR*") establishes drum, and associated pin roller, requirements to provide for worker safety. In particular, it is required that the drum be operated with a "hold-to-run" control to protect a worker from being wound in by the drum in the event the worker gets caught up in the net. If a worker became entangled in the net, the worker would be pulled away from the hold-to-run control and the drum would cease to operate.

In recent years the herring fishery has adopted drum operated gillnetting, but the *OHSR* does not currently provide requirements for safeguarding when the net is being wound in during herring gillnetting operations. As a result, some herring gillnetting vessels have drum operated gillnets with controls that are not hold-to-run controls. This allows an operator to engage the drums and then move away from the controls and work close to the moving net, lines and drums, with a risk of being pulled into the net drum in the event the worker gets caught by the net or lines.

It is proposed that the *OHSR* be amended to require appropriate safeguarding be provided for drum operations on herring gillnet vessels by adding a new subsection (2) to section 24.106. This proposal recognizes that a herring gillnet operation is different from a salmon gillnet operation. In salmon gillnetting, the worker tending the net frequently has to stop the net to manually remove a fish from the net, and then start the drum to spool in the net until the next fish caught in the net comes along. For this operation, a hold-to-run control works well and is the industry standard. For herring gillnet operations, the fish are shaken from the net as it passes over a "beater drum" before the net is wound onto the net drum so the person tending the net does not have to regularly stop the process. The operation works best if

the net speed and net tension is kept constant. The operation needs to be stopped only if the worker tending the net needs to remove debris from the net, adjust the cork or lead line, or when some other net adjustment needs to be made. The net speed is slower than for a salmon gillnet operation, but there still is the hazard of a worker caught by the net or lines being pulled over the beater drum and into the net drum. The industry is concerned that if a worker has to operate a hold-to-run switch while tending the herring gillnet, there may be ergonomic issues due to extended periods holding the control with no change of position. There are other options to safeguard the operation, such as having a "trip bar" positioned just before the beater drum that would stop the drums if contacted by the girth of a worker being pulled by the net or lines into the area just before the beater drum. Or the worker could be tethered to a disconnect switch which would activate to stop the drums if the worker was caught up in the net or lines and pulled beyond a safe point towards the beater drum. The use of a tether system is less desirable as it requires the worker to remember to connect to the switch tether for the safeguarding system to work.

It is proposed that existing section 24.104 (a) be amended by inserting the words "the net" for clarity, and to be consistent with the wording in proposed new section 24.106 (2) (a).

PART 24: DIVING, FISHING AND OTHER MARINE OPERATIONS

FISHING OPERATIONS

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PART 24: DIVING, FISHING AND OTHER MARINE OPERATIONS

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(b) a hold-to-run control or other equally effective safeguard to stop the drums if a worker becomes entangled in the net or lines being wound in by the drum.

Note:

Amendments have been proposed only for the following sections in Part 24:
24.93
24.104
24.106

Section 24.105 is provided here for reading convenience only.