



Risk Assessment Solutions

“Don’t Cure, Prevent”

Circular 01/01/15

Subject: Safety pins, fixed CO2 system cylinder valve– Important Issue!

Case: During an AMSA inspection, the CO2 room was visited for inspection purposes. After reviewing the posted instructions for the safe operation of the fixed CO2 system, the AMSA surveyor concluded that the withdrawal of the safety pins from the CO2 cylinder valves was not available in the instruction. The aforementioned resulted to the following deficiency:

“The safety pins of the fixed CO2 cylinder valves are still in place, thus rendering the system inoperative.”

Analysis

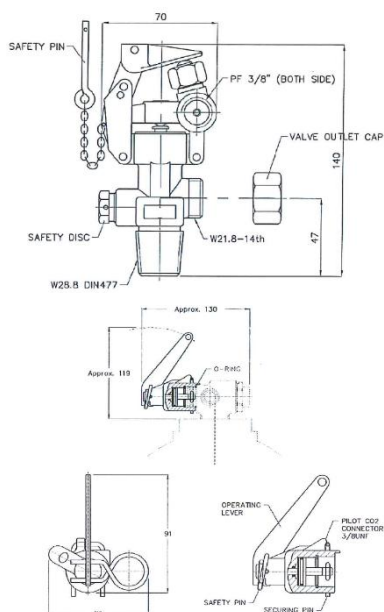
In connection to the above, and in order to assist our clients to prevent similar cases, we would like to remind you that the FFS Code Chapter 9, “Fixed fire detection and fire alarm systems”, reads:

“2.1.1 Any required fixed fire detection and fire alarm system with manually operated call points shall be capable of immediate operation at all times”

Understanding the quote

According to the FSS code, the fixed fire-extinguishing system must be fully operable at all times. Safety pins are applied to the CO2 fire extinguishing system in order to prevent the unintended release of gas or for transportation purposes ashore.

However, the clients should note that there are **two types** of CO2 cylinder head valves/actuators.



For **type A** cylinder valve, the safety pin acts as a safety device during transportation, installation and testing phases. The pin **must** be removed to commission the system otherwise the CO2 system is inoperable.

For **type B** cylinder valve, the safety pin is necessary to prevent the unintended discharge of CO2 due to vibration and the pin is required to remain in place until discharge of the CO2. Where the CO2 is discharged remotely from a fire station, the CO2 can be discharged without removal of the safety pin.



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Conclusion

According to the aforementioned, it is suggested for the clients to:

- a) *Verify the type of CO2 cylinder valves currently on board*
- b) *The crew to be familiarized with the type of valve, the operation of the CO2 system and identify according to the manufacturers whether the safety pin should be in position or withdrawn*
- c) *In case of type A, the crew should remove the safety pins, maintaining the system as such fully operable at all times. Alternatively, if keeping the safety pin in position in order to avoid incidental discharge is chosen, the crew should be familiar/aware that the safety pins must be removed prior to the CO2 system operation and such instructions should be posted at all CO2 control stations.*

We remain at your disposal for more details,

Prevention at Sea