SAFETY RECOMMENDATION No: 23/2015

Text of Safety Recommendation:	
Consider of bringing forward to competent International Bodies a proposal introducing supplements to IMSBC Code for shipborne sampling collection of cargo based on the provisions foreseen in Code's Section 4 "Assessment of acceptability of consignments for safe shipments/par. 4.4 "Sampling procedures" that are addressed to Terminal personnel.	
No of Safety Investigation Report:	03/2015: Death by asphyxiation of the Bosun of Bulk Carrier KOSMAS V, Panama Flag, IMO 9445681, after entering a cargo hold *(See the full Report here.)*
Safety Recommendation addressed to:	The Hellenic Shipping Administration/Safety of Navigation Directorate and the Competent Directorate of Panama Shipping Administration
Date of publication:	04/10/2016
Comments-Remarks:	

INFORMATION OF ACCIDENT

Type of vessel: Bulk Carrier
Year of built: 2011

Death by asphyxiation of the Bosun of Bulk Carrier KOSMAS V, Panama Flag, IMO 9445681, after entering a cargo hold

Course of events

Kosmas V, under Panama Flag, was a five cargo holds 57,000 tons Handymax Bulk carrier, geared with four cranes that was built in China in 2011. By the time of the marine casualty she was engaged in international trade.
On 26 February 2015, the Bosun of KOSMAS V lost his life after entering into cargo hold no 3 aft hold access compartment.

On the same day, Kosmas V had arrived from Richard's Bay, South Africa, laden with 44,000 MT of Steaming Coal in bulk and she had berthed at 08:15 alongside Drepanon port facilities, located at Achaia, Greece. Discharging operation was under preparation. At approximately 09:00 the Draught Surveyor along with the Chief Officer was carrying out the draught survey and requested from him that following the discharging commencement, he would need to receive a cargo sample. Until that time cargo hold hatch covers were still closed.

The Bosun, who was present, assigned one AB and one OS to collect cargo samples from all cargo holds and headed towards the accommodation. The AB, carrying a flashlight, some plastic bags and a small shovel, opened the hatch cover of the main hold access of no 3 Cargo Hold and entered the compartment via the Australian ladder.

Bulk carrier KOSMAS V.

After a few seconds, he collapsed. The OS, watching him from the hatch coaming opening, ran towards the accommodation and called the Bosun for help. Two other ABs standing nearby, having realized the emergency, entered the cargo hold along with the Bosun, in an attempt to recover their colleague. All three of them also collapsed. The OS still standing at the entrance of the manhole access, ran to the accommodation and reported the incident to the 3rd Officer who was the Deck Watch Officer. The 3rd Officer rushed his way to the cargo hold entrance and saw unconscious crew members lying on the Australian ladder's landing platform. He immediately reported the emergency to the Master via his VHF radio.

Two breathing apparatuses as well as rescuing equipment were brought by other crew members on spot. While the 3rd Officer was putting on the rescue equipment, the Chief Officer, who was the Ship's Safety Officer, entered the manhole compartment on his effort to help the unconscious Seamen, without taking any precautions, or even waiting for the Hold's hatch cover to be opened. He managed to recover one OS and push him out on deck however he also felt faint and struggled his way up to the main deck himself.

At that time, No 3 Hold hatch cover began to open and although the proper procedure for the rescue from an enclosed space was not followed, the gathered crew members managed to pull the other 3 unconscious crew members out. The Bosun was pulled out last, due to the fact that he had collapsed and fell at a lower spot than the rest of the crew members.

The Bosun lost his life due to the oxygen deficient atmosphere in the aft cargo hold access compartment that caused his asphyxiation. One AB and one OS were hospitalized and recovered a few days after the accident and joined Kosmas V before departing from Drepanon port. One AB was hospitalized for approximately fifteen days and was repatriated shortly after.

Consequences (to individuals, environment , property)

The Bosun of KOSMAS V died, whereas 3 Seamen were injured and hospitalized. No damage to the ship or her cargo was sustained.

Probable cause

1. The crew of Kosmas V failed to conceive that the loaded cargo hold was a dangerous enclosed space.
2. The crew of Kosmas V failed to consider the likelihood that the atmosphere within the space could be oxygen deficient and overlooked fundamental practices.
3. The crew's training regarding the procedure of entering an enclosed space had not been sufficient.
4. The Managing Company's policy "on entry into enclosed spaces" was not clear and updated and was not adequately implemented by the Officers;
5. The Managing Company had not taken any actions to rectify the gas monitor instrument that was not functioning due to its overdue calibration.

Conclusions

1. Actions should be taken by the ship's Managing Company to improve the standards of safety and training for shipborne personnel;
2. Actions should be taken by the ship's Managing Company to improve the response to maintenance of critical safety equipment;
3. Actions should be taken by the ship's Managing Company to review the Safety Management System in relation to cargo operations, recruiting policy and other safety related issues as presented in the report.
4. Actions should be taken by Panama Authority as Flag Sate to take note of the identified issues in relation to crew communication language barriers and Safety Management Manuals and their emanating Manuals, check lists etc. produced in Languages that are not understandable in full by seafarers who are not capable of communicating in English and take actions as deemed appropriate.
5. Actions should be taken by Panama Authority and Greek Administration to propose to international competent Bodies an amendment to BLU Code regarding cargo sampling procedure for shipborne personnel.
6. Drepanon Terminal should take actions in order to review its safety procedures in view of a ship to shore check list (analogous to the one included in the BLU Code) to be completed prior to cargo handling commencement, even in cases when the loading or unloading is carried out solely with the ship's equipment and the BLU Code doesn't apply.